

FINAL

Remedial Investigation Report

Site 2567

U. S. Army Garrison Fort Monmouth
Fort Monmouth, New Jersey



Directorate of Public Works



August 4, 2004

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August 4, 2004

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EXECUTIVE SUMMARY

VERSAR, Inc. (Versar) has been contracted by the United States (U.S.) Army Garrison, Fort Monmouth (Fort Monmouth), Directorate of Public Works (DPW), Fort Monmouth, New Jersey to prepare a Remedial Investigation Report (RIR) to document groundwater conditions at Site 2567 located in the Charles Wood Area of Fort Monmouth, New Jersey. This report addresses the remedial investigation activities performed at this site to investigate groundwater conditions from April 1997 through January 2004.

Site 2567 is located in the Charles Wood Area of Fort Monmouth at the northwest corner of the intersection between Laboratory Road and Hope Road. Site 2567 includes Building 2567, two gasoline dispenser islands located within the paved area south of the building and dense wooded areas located to the south and east of the site. Two Underground Storage Tank (UST) closure reports have been submitted to the New Jersey Department of Environmental Protection (NJDEP) regarding USTs in the immediate vicinity of Site 2567.

The *UST Closure and Site Assessment Report for Building 2567, Tanks 33 and 46* documents the removal of two single-wall steel USTs located adjacent to Building 2567. Both USTs were cleaned, excavated and disposed of in accordance with NJDEP requirements. Following the removal of these two USTs, eight post-excavation samples were collected and contained either non-detectable concentrations of total petroleum hydrocarbons (TPHC) or concentrations below NJDEP criteria.

The *UST Closure and Site Assessment Report, Building 2567, UST Nos. 42, 43, 44 and 45* documented the removal of four gasoline USTs located under the pavement approximately 30 feet southeast of Building 2567. The DPW notified the NJDEP of a fuel leak at the Charles Wood gas station, Building 2567. Four groundwater monitoring wells were installed in 1991 to evaluate groundwater quality in the area of Building 2567 and the USTs at Site 2567 were closed. Approximately 936 cubic yards of soil were excavated from the area surrounding the USTs and the dispenser island. Twelve post-excavation soil samples were collected and TPHC was either not detected or detected below NJDEP criteria.

Subsequently, 23 post-excavation soil samples were collected from the side walls of the excavation area. TPHC was detected in one sample at a concentration below the NJDEP criteria. There were three volatile organic compounds (VOCs) detected at concentrations exceeding the NJDEP Residential Direct Contact Soil Cleanup Criteria (RDCSCC) or the Impact to Groundwater Soil Cleanup Criteria (IGWSCC). Lead was detected below the RDCSCC. There is no IGWSCC for lead.

In response to the suspected discharges from the USTs following the reported release, four groundwater monitoring wells were installed near Building 2567. These wells were sampled in five sampling rounds; during these sampling events, four VOCs and lead were detected in groundwater samples collected at Site 2567 at concentrations greater than the Class II-A NJDEP Ground Water Quality Criteria (GWQC).

The Weston 1995 report identified methyl tert-butyl ether (MTBE) and tert-butyl alcohol (TBA) as groundwater contaminants without GWQC; however, both MTBE and TBA exceeded the interim GWQC in multiple rounds of sampling at one monitoring well.

In September 1994, one additional monitoring well (2567-MW5) was installed by the DPW to determine if contaminants were present downgradient from the site.

In a letter report submitted to the NJDEP in May 2000, ATC Associates (ATC) reported sampling results collected during six sampling events from five monitoring wells at Site 2567. During these six sampling events, five VOCs (benzene, MTBE, TBA, xylenes and methylene chloride) were detected in groundwater samples collected at Site 2567 at concentrations greater than their respective GWQC. Lead was not detected in any of the groundwater samples collected during this time at concentrations exceeding its GWQC.

As presented in the Weston SI Report, several natural and anthropogenic factors contribute to the wide range in concentrations of metals in soils, which further impact the concentration of metals in groundwater. A low-flow sampling methodology was proposed for use by the DPW and accepted by the NJDEP to assess the impact of entrained sediments on the dissolved phase metals concentrations at Fort Monmouth.

Fort Monmouth DPW has conducted a Remedial Investigation (RI), including a groundwater sampling program, to define the areal extent of potential pollutants and evaluate impacts to groundwater in the vicinity of Site 2567. Remedial investigation activities were performed from September 1991 and continued through January 2004.

A total of seven monitoring wells comprise the quarterly groundwater monitoring program conducted by the DPW. The location of each well was strategically selected by the DPW to monitor possible contaminants released into the groundwater due to the former USTs located at Building 2567. As part of the remedial investigation, a quarterly groundwater sampling program was conducted from April 1997 through January 2004 at Site 2567.

During the 30 quarterly sampling events, four VOCs and five Target Analyte List (TAL) metals were detected in groundwater samples at concentrations above their respective NJDEP GWQC. Based on the magnitude of their exceedences, the frequency of their occurrences and their wide-ranging results, TBA is identified as the only contaminant of concern (COC) at Site 2567.

The RI also included the collection of groundwater depth measurements, the performance of slug tests, evaluation of aquifer classification, and the completion of a sensitive receptor survey. The results of the field and laboratory investigations were used to develop a conceptual site model to provide a basis for the development of a three-dimensional computer model. The conceptual site model considers the site-specific topography, groundwater recharge, groundwater flow conditions and the geologic formations present at the site. A MODFLOW computer model was used to simulate

groundwater flow and contaminant transport beneath the site. The purpose of developing a groundwater model for Site 2567 was to predict the migration of the identified COC in site groundwater.

In order to evaluate groundwater conditions and potential COC migration at Site 2567, additional Geoprobe[®] groundwater samples were collected from seven points in February and April 2004.

Continued groundwater monitoring of TBA degradation through natural attenuation at Site 2567 is recommended.

1.0 INTRODUCTION

Versar has been contracted by the U.S. Army Garrison, Fort Monmouth DPW, Fort Monmouth, New Jersey to prepare an RIR to document groundwater and surface water conditions at Site 2567 located at the Charles Wood Area, Fort Monmouth, New Jersey. This report addresses the remedial investigation activities performed at this site to investigate groundwater conditions from April 1997 through January 2004.

1.1 Objectives

The objectives of this RIR are to define aquifer chemical and physical characteristics and to determine the requirement for further remedial activities at Site 2567. The remedial investigation was conducted in accordance with NJDEP *Technical Requirements for Site Remediation* (February 2003), NJAC 7:26E, et seq.

The remedial investigation and subsequent preparation of the RIR encompassed the following:

- Characterization of groundwater quality over time through quarterly groundwater sampling events conducted from April 1997 through January 2004.
- Characterization of groundwater quality during two low-flow sampling events in May and June 2001.
- Comparison of the results of the groundwater quality monitoring programs with the NJDEP GWQC.
- Investigation and evaluation of the designated aquifer uses, the associated aquifer classification, and the appropriate groundwater quality criteria for groundwater resources beneath Site 2567. The NJDEP Ground Water Quality Standards (GWQS) specify the quality criteria and designated uses for groundwater and also contain technical and general policies to ensure that the designated uses can be adequately protected.
- Performance of slug tests during August 2001 to characterize the hydraulic conductivity and groundwater flow regime.
- Development of a biodegradation model for potential COCs at Site 2567 based on hydrogeologic data, field investigation programs and technical research to evaluate the migration of potential COCs beneath the site.
- Formulation of recommendations for future remedial investigation or remedial action alternatives for Site 2567.

1.2 Report Organization

This report is organized to minimize repetition. **Section 2.0** provides background information and a general description of Site 2567 located in the Charles Wood Area of Fort Monmouth. **Section 3.0** describes and summarizes the field activities conducted at Site 2567 including groundwater and surface water sampling and aquifer testing. **Section 4.0** presents the physical characterization of Site 2567, including lithology and

groundwater conditions. Chemical characterization is presented in **Section 5.0**, which includes groundwater sampling results and the determination of potential COCs. **Section 6.0** discusses the potential for contaminant migration in the vicinity of Site 2567 and presents groundwater modeling involving COCs. Conclusions and recommendations are presented in **Section 7.0**. The references used to prepare this report are listed in **Section 8.0**.

2.0 SITE BACKGROUND AND ENVIRONMENTAL SETTING

The following sections describe the site background and environmental setting of the area surrounding Fort Monmouth and Site 2567. Included is a description of the site location, background, current conditions and environmental setting.

2.1 Site Location and Description

Fort Monmouth is located in the central-eastern portion of New Jersey in Monmouth County, approximately 45 miles south of New York City and 70 miles northeast of Philadelphia (**Figure 2-1**). In addition to the Main Post, the installation includes two subposts, the Charles Wood Area and the Evans Area. The Main Post encompasses approximately 630 acres and is bounded by State Highway 35, Parkers Creek, Lafetra Brook, the New Jersey Transit Railroad and a residential area to the south. The post was established in 1918 during World War I (WWI) as an Army Signal Corps training center. The Main Post currently provides administrative, training, and housing support functions, as well as providing many of the community facilities for Fort Monmouth. The primary mission of Fort Monmouth is to provide command, administrative, and logistical support for Headquarters, U.S. Army Communications and Electronics Command (CECOM). CECOM is a major subordinate command of the U.S. Army Materiel Command (AMC) and is the host tenant at Fort Monmouth.

Site 2567 is located in the Charles Wood Area of Fort Monmouth at the northwest corner of the intersection between Laboratory Road and Hope Road (**Figure 2-2**). Site 2567 includes Building 2567, two gasoline dispenser islands located within the paved area south of the building and dense wooded areas located to the south and east of the site.

2.2 Site Background

In the early 1990s, the DPW developed a UST program for managing approximately 506 USTs located throughout the Fort Monmouth installation (Main Post, Charles Wood and Camp Evans areas). This program was created to work toward replacing the use of heating oil as a major energy source and to convert to natural gas. The DPW's approach involved installing new gas lines and new gas-fed boilers and removing the non-regulated (residential) USTs. Since 1990, approximately 97 percent of the aforementioned USTs at Fort Monmouth have been removed.

As part of the DPW's UST management program, two UST closure reports (October 1993 and January 1995) have been submitted to the NJDEP regarding USTs in the immediate vicinity of Site 2567. In addition to these two closure reports, the DPW submitted one letter report (May 2000) detailing the results of a long-term groundwater monitoring program for Site 2567. These three reports are presented in **Appendix A**, **Appendix B** and **Appendix C** and are discussed below.

In 1995, the DPW submitted a Site Investigation (SI) report to the NJDEP (Weston, 1995) for the Main Post and Charles Wood areas. Relevant sections of this SI report are

presented in **Appendix D** and are discussed below in **Section 2.2.3**. The Weston SI report was incorporated into the discussion of COCs (**Section 5.2**) for Site 2567.

The groundwater monitoring program presented in this report includes the five wells originally installed as part of the closure of former USTs. The locations of these five monitoring wells and two additional wells installed during this remedial investigation are shown in **Figure 2-3**. A well construction summary is provided in **Table 2-1**. Monitoring well records are provided in **Appendix E**.

2.2.1 UST Closure and Site Assessment for Two USTs – Weston, 1993

According to the *UST Closure and Site Assessment Report for Building 2567, Tanks 33 and 46*, prepared by Weston for the DPW, October 1, 1993 (**Appendix A**), there were two single-wall steel USTs (USTs 33 and 46) located adjacent to Building 2567 (**Figure 2-4**). UST No. 33 was a 1,000-gallon No.2 fuel oil UST, and UST No. 46 was a 500-gallon waste oil UST. On December 31, 1991, both USTs were cleaned, excavated and disposed of in accordance with NJDEP requirements. No holes were noted in the USTs, and no potentially contaminated soils were observed surrounding the USTs. U.S. Department of Health (DEH) records indicate that UST No. 46 was never in use. Following the removal of these two tanks, eight post-excavation samples were collected and analyzed for TPHC. The eight soil samples contained either non-detectable concentrations of contaminants or concentrations below NJDEP subsurface cleanup criteria.

2.2.2 UST Closure and Site Assessment for Four USTs – Weston, 1995

According to the *UST Closure and Site Assessment Report, Building 2567, UST Nos. 42, 43, 44, and 45*, prepared by Weston for the DPW in January 1995 (**Appendix B**), there were four gasoline USTs (Nos. 42 through 45) located under the pavement approximately 30 feet southeast of Building 2567 (**Figure 2-4**). UST Nos. 42, 43 and 44 were single-walled steel 10,000-gallon unleaded gasoline USTs. UST No. 45 was a single-walled steel 6,000-gallon leaded gasoline UST.

In December 1989, the DPW notified the NJDEP of a fuel leak at the Charles Wood gas station, Building 2567 (Case No. 89-12-12-1442). In January 1990, a tightness test was conducted on the premium gasoline line, which tested tight. In January 1991, UST Nos. 42, 43 and 44 were tightness tested. UST Nos. 42 and 44 passed the UST system tightness test, although UST No. 43 failed this test (Case No. 91-8-27-1414). In response to the failed tightness test, UST No. 43 was placed out of service and four groundwater monitoring wells were installed in 1991 to evaluate groundwater quality in the area of Building 2567. The closure, remediation and construction of a new facility near Building 2567 were conducted by the DPW in 1993.

In February 1993, UST Nos. 42 through 45 were closed at Site 2567. During the closure, UST Nos. 42 through 45 were drained and removed along with associated piping. The subsurface evaluator did not observe any holes in any of these four USTs after they were removed from the ground. There was no sheen observed on groundwater during the UST removals. Based on visual observations of stained soils and screening with a PID, approximately 936 cubic yards of soil were excavated from the area surrounding the USTs and the dispenser island (**Figure 2-4**). The excavation was extended to a maximum depth of 11 feet (where groundwater was encountered).

Soil Sampling

On February 2, 1993, four post-excavation samples were collected from the bottom and north side wall of the excavation and analyzed for TPHC. In addition, on February 8, 1994, eight post-excavation soil samples were collected from the east sidewall and also analyzed for TPHC. In these 12 post-excavation soil samples, TPHC was either not detected or detected below NJDEP soil cleanup criteria.

On February 24, 1993, 23 post-excavation soil samples were collected from the sidewalls of the excavation area and analyzed for TPHC, VOCs plus 15 tentatively identified compounds (TICs) and lead. The soil sampling results were compared to the NJDEP RDCSCC and IGWSCC.

TPHC was detected in one sample at a concentration below the NJDEP cleanup criteria. There were three VOCs detected in these 23 post-excavation soil samples at concentrations exceeding the RDCSCC or the IGWSCC. Benzene was detected at concentrations ranging from 1.8 mg/kg to 45 mg/kg. The IGWSCC for benzene is 1 mg/kg and the RDCSCC for benzene is 3 mg/kg. Ethylbenzene was detected at concentrations ranging from 120 mg/kg to 170 mg/kg. The IGWSCC for ethylbenzene is 100 mg/kg and the RDCSCC for ethylbenzene is 1000 mg/kg. Total xylenes were detected at concentrations ranging from 11.7 mg/kg to 1200 mg/kg. The IGWSCC for total xylenes is 10 mg/kg and the RDCSCC for total xylenes is 410 mg/kg. Lead was detected below the RDCSCC of 400 mg/kg at concentrations ranging from 7.77 mg/kg to 129 mg/kg. There is no IGWSCC for lead.

Appendix B includes these soil sampling results as presented in the 1995 Weston SI and Closure Report.

Groundwater Sampling

In response to the suspected discharges from the USTs following the reported release in 1989 and failed tightness test in 1991, four groundwater monitoring wells (2567-MW1, 2567-MW2, 2567-MW3 and 2567-MW4) were installed near Building 2567 in October 1991 (see **Table 2-1** and **Figure 2-3**). Soil boring logs and monitoring well records are contained in **Appendix E**. These wells were sampled in five sampling rounds (December 1991, October 1992, April 1993, February 1994, and March 1994). The groundwater samples that were collected during December 1991, October 1992, February 1994 and

March 1994 were analyzed for VOCs plus 15 TICs. The groundwater samples that were collected during April 1993 were analyzed for semi-volatile organic compounds (SVOCs) plus 15 TICs.

During these sampling events, four VOCs (benzene, 1,2-dichloroethene, xylenes, and methylene chloride) and lead were detected in groundwater samples collected at Site 2567 at concentrations greater than the Class II-A NJDEP GWQC. There were no SVOCs detected in groundwater samples collected in April 1993 at concentrations greater than the GWQC. Groundwater sampling results for wells 2567-MW1 through 2567-MW4, as presented in the 1995 Weston SI report, are included in **Appendix B**.

In the groundwater results tables included in the 1995 Weston SI report, Weston identified MTBE and TBA as groundwater contaminants without GWQC. As of December 2001, the NJDEP applies the interim groundwater quality criteria of 70 ug/L and 100 ug/L to MTBE and TBA, respectively. The exceedences of these interim criteria for the groundwater samples collected between December 1991 and March 1994 are discussed below.

MTBE was detected at concentrations exceeding the interim GWQC of 70 ug/L in four rounds of sampling collected at one monitoring well location (2567-MW1). Concentrations ranged from 650 ug/L (February 1994) to 2,200 ug/L (December 1991).

TBA was detected at concentrations exceeding the interim GWQC of 100 ug/L in three rounds of sampling collected at one monitoring well location (2567-MW1). Concentrations ranged from 470 ug/L (April 1993) to 5,400 ug/L (October 1992).

In the 1995 Weston SI and closure report, Weston presented two groundwater flow maps in addition to groundwater sampling results. These groundwater flow maps both show groundwater flow to the southeast. Weston also conducted an NJDEP well search to identify all irrigation, monitoring, domestic, industrial and public supply wells near Site 2567. The nearest domestic well was found to be 6,500 feet southeast of Site 2567.

In September 1994, one additional monitoring well (2567-MW5) was installed by the DPW to determine if contaminants were present downgradient from the site. Well 2567-MW5 is located southeast of the site on the eastern side of Hope Road (see **Table 2-1**, **Figure 2-3** and **Appendix E**). The results for groundwater samples collected at well 2567-MW5 were presented by ATC in the letter report discussed below.

2.2.3 Groundwater Monitoring Letter Report – ATC, 2000

In a letter report submitted to the NJDEP in May 2000 (**Appendix C**), ATC reported sampling results collected from five monitoring wells at Site 2567 (2567-MW1 through 2567-MW5). These groundwater samples were collected by the DPW during six quarterly sampling rounds between May 1995 and April 1997. In this letter report, ATC also presented one groundwater flow map that shows groundwater flow to the southeast.

Groundwater sampling results for wells 2567-MW1 through 2567-MW5, as presented in the ATC letter report (May 2000), are included in **Appendix C**.

The groundwater samples collected at Site 2567 during May 1995, August 1995, November 1995, February 1996, and April 1997 were analyzed for VOCs plus 15 TICs and lead. The groundwater samples collected at Site 2567 during January 1997 were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and lead.

During these six sampling events, four VOCs (benzene, MTBE, xylenes and methylene chloride) were detected in groundwater samples collected at Site 2567 at concentrations greater than the GWQC. The results of the groundwater sampling indicated that benzene concentrations decreased in monitoring well 2567-MW3 during the period addressed by the ATC letter report. Lead was not detected at concentrations exceeding the GWQC in any of the groundwater samples collected during this time.

In the groundwater results tables included in the ATC 2000 letter report, ATC identified TBA as a groundwater contaminant without an associated GWQC. As discussed above in **Section 2.2.2**, the NJDEP currently applies the interim groundwater quality criterion of 100 ug/L for TBA contamination in class II-A aquifers. In four sampling rounds (May 1995, August 1995, November 1995, and February 1996), TBA was detected above the groundwater criteria of 100 ug/L in groundwater samples collected at well 2567-MW1 at concentrations ranging from 780 ug/L to 930 ug/L.

2.2.4 SI Report for Main Post and Charles Wood Areas – Weston, 1995

Weston, as part of the SI of the Fort Monmouth military installation, conducted soil sampling, monitoring well installation and sampling and geophysical surveying. In addition to sampling of soil and groundwater at sites throughout the Main Post and Charles Wood areas of Fort Monmouth, Weston established background concentrations of chemical constituents in soil and groundwater for the Fort Monmouth installation, as reported in the 1995 Weston SI report. These background concentrations have been used by the DPW for comparing sampling results for native constituents of soil and groundwater.

As presented in the Weston SI Report, several natural and anthropogenic factors contribute to the wide range in concentrations of metals in soils, which further impact the concentration of metals in groundwater. Soils derived from the glauconitic sands contain abundant aluminum, calcium, potassium, iron, magnesium and manganese (among others), which are likely to be present at elevated concentrations in the groundwater, particularly when sediments are entrained in the collected groundwater samples. A low-flow sampling methodology was proposed for use by the DPW and accepted by the NJDEP to assess the impact of entrained sediments on the dissolved phase metals concentrations at the Main Post and Charles Wood areas of Fort Monmouth. Using a low-flow sampling methodology to reduce the presence of entrained sediment has generally yielded substantial reductions in the dissolved phase concentrations of metals, such as arsenic, antimony, beryllium, cadmium, chromium, cobalt, lead, mercury,

selenium, silver, thallium and vanadium at Fort Monmouth sites. Significant decreases in the concentrations of metals characteristic of glauconitic sand also were observed. These included aluminum, barium, calcium, copper, iron, magnesium, manganese, nickel, potassium, sodium and zinc.

2.3 Current Conditions

Versar conducted a site walk-through in April 2004, to assess current conditions at Site 2567. The site consists of Building 2567, which is a convenience store and gasoline station, paved parking areas along the west, south, and east sides of the building, and two gasoline dispenser islands located within the paved area south of the building. There are dense wooded areas located south and east of the site. Site 2567 photographs were taken during a site walk-through in 2001 and are included in **Appendix F**.

The gas station currently utilizes three double-fiberglass reinforced 10,000-gallon USTs to store gasoline (UST Nos. 81515-66, 81515-67, and 81515-68). These three USTs are located at the same approximate area as the former gasoline USTs (UST Nos. 81515-42 through 81515-45, shown in **Figure 2-4**). Underground utility lines at Site 2567, including gas, storm sewer and water are shown in **Figure 2-5**. There is also an abandoned sewer line in the vicinity of the former gasoline USTs. A swale runs parallel to Hope Road, and elevations of the base of the swale indicate that the swale may intersect groundwater in the vicinity of the site. Underground utilities and the swale may impact shallow groundwater flow at Site 2567, as discussed in **Sections 4.0** and **6.0** below.

2.4 Environmental Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Site 2567. Included is a description of the regional geology of the area surrounding Fort Monmouth, as well as descriptions of the local geology and hydrogeology of the Charles Wood area.

2.4.1 Regional and Local Geology

Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain physiographic province. Site 2567 is located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands. The geologic map of New Jersey is provided as **Figure 2-6**.

In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, sand and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 1989). These sediments, predominantly derived from deltaic, shallow marine and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units, which are generally thicker to the southeast and reflect a deeper water environment. More than 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations and the Cohansey Sand), while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown and Navesink Formations). The individual thickness for these units varies greatly (e.g., from several feet to several hundred feet). The Coastal Plain deposits thicken to the southeast from the Fall Line (e.g., a boundary zone between older, resistant rocks and younger, softer plain sediments) to greater than 6,500 feet in Cape May County (Brown and Zapecza, 1990).

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post and Charles Wood areas. The Red Bank Sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank Sand is a yellowish-gray to reddish brown clayey medium-to-coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica and glauconite.

The Tinton Sand conformably overlies the Red Bank Sand and ranges from a clayey medium to very coarse-grained feldspathic-quartz and glauconite-sand to a glauconitic-coarse sand. The color varies from dark yellowish orange or light brown to moderate brown and from light olive to grayish olive. Glauconite may constitute 60 to 80 percent of the sand fraction in the upper part of the unit. The upper part of the Tinton Sand is often highly oxidized and iron oxide encrusted (Minard, 1969).

The Hornerstown Sand unconformably overlies the Red Bank Sand and dips to the southeast at 50 to 60 feet per mile. The Hornerstown Sand consists of dark green clayey glauconitic sand.

The Tertiary-age Kirkwood Formation and Vincentown Formations crop out approximately two miles south of the Main Post. The Vincentown Formation contains a lower member which is greenish-gray glauconitic sand and an upper member which ranges from sand to clayey limestone. The Kirkwood Formation consists of alternating layers of sand and clay. The Vincentown and Kirkwood Formations dip to the southeast at approximately 20 and 27 feet per mile, respectively (Jablonski, 1968).

Based on the interpretation of lithologic boring logs (**Appendix E**), the lithology of native material at Site 2567 consists of the Tinton Sand. Below Building 2567 and the surrounding paved areas exists asphalt and/or fill material overlying sedimentary layers of light green sand, dark brown/green clay with trace amounts of sand, and medium-fine sand. In the area of monitoring well 2567-MW5, there exists a slightly different progression consisting of brown fine sand overlying black, soft clay, followed by brown fine sand with trace amounts of silt, and finally gray medium sand intermixed with well-

rounded gravel. Further discussion of the subsurface conditions is presented in **Section 4.0**.

2.4.2 Hydrogeology

Fort Monmouth lies in the Atlantic and Eastern Gulf Coastal Plain groundwater region. This groundwater region is underlain by undeformed, unconsolidated to semi-consolidated sedimentary deposits. The chemistry of the water near the surface is variable with low dissolved solids and high iron concentrations. The water chemistry in areas underlain by glauconitic sediments (such as Red Bank, Tinton and Hornerstown Sands) is dominated by calcium, magnesium, manganese, aluminum and iron. The sediments in the area of Fort Monmouth were deposited in fluvial-deltaic to near shore environments.

The water table aquifer in the Main Post and Charles Wood areas is identified as part of the “Composite Confining Unit,” or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation and the basal clay of the Kirkwood Formation. These geologic formations comprise a “Composite Confining Bed” for the Wenonah Mount Laurel Aquifer (Zapeczka, 1984). Measured hydraulic conductivities for the Navesink Hornerstown Confining Unit, presented in Martin (1998) range from 0.0005 to 9 feet per day, with a geometric mean of 0.12 feet per day. The hydraulic conductivity of 0.12 feet per day is discussed in relation to Site 2567 in **Section 6.1.4**.

Wells installed in the Red Bank and Tinton Sands produce 2 to 25 gallons per minute (gpm) (Jablonski, 1968). Groundwater is typically encountered at the Charles Wood areas at shallow depths below ground surface (bgs) (2 to 9 feet bgs). Water in the surficial aquifer generally flows east toward the Atlantic Ocean.

As presented in **Figure 2-7**, Fort Monmouth is located within the outcrop area of the Composite Confining Unit (Martin, 1998), which also includes the Red Bank Sand, Tinton Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation and the basal clay of the Kirkwood Formation. The Composite Confining Unit is approximately 125 feet thick at Site 2567.

Based on a review of the NJDEP GWQS, January 7, 1993, Versar has determined that the site is underlain by a Class III-A aquifer. A formal presentation of this finding was made to the NJDEP on April 17, 2001. The primary designated use for Class III-A groundwater is the release or transmittal of groundwater to adjacent classification areas and surface water, as relevant. Secondary designated uses in Class III-A include any reasonable use. Further discussion of the Class III-A aquifer designation is presented in **Section 6.3**.

Shallow groundwater may be locally influenced within the Charles Wood Area by the following factors:

- Tidal influence (based on proximity to the Atlantic Ocean, rivers and tributaries)
- Topography
- Nature of the fill material within the Charles Wood Area
- Presence of clay and silt lenses in the natural overburden deposits
- Local groundwater recharge areas (e.g., streams, lakes)
- Roadways, utility conduits and stormwater culverts

Due to the fluvial nature of the overburden deposits (e.g., sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. Groundwater in the vicinity of Site 2567 appears to be flowing in a south-southeast direction toward Wampum Brook. Underground utilities may have a significant effect of diverting shallow groundwater flow.

2.4.3 Soils

According to the U.S. Department of Agriculture (USDA), Soil Conservation Service, Monmouth County Soil Survey (April 1989), the majority of the Main Post and Charles Wood areas is covered by urban land (**Figure 2-8**). The soil survey describes urban land as areas where concrete, asphalt, buildings, shopping centers, airports or other impervious surfaces cover 80 percent or more of the surface. In addition, the survey indicated that the natural subsurface soils have largely been replaced with artificial or foreign fill materials (developed land with disturbed soils).

The following soil series and classification units are mapped in the Charles Wood area:

- DoB Downer sandy loam (with 2 to 5 percent slopes)
- FrB Freehold sandy loam (with 2 to 5 percent slopes)
- FUB Freehold sandy loam/urban land complex (with 0 to 10 percent slopes)
- HUA Holmdel sandy loam/urban land complex (with 0 to 5 percent slopes)
- HV Humaquepts, frequently flooded
- KvA Kresson loam (with 0 to 5 percent slopes)
- PT Pits, Sand and Gravel
- Sn Shrewsbury sandy loam
- UA Udorthents, smoothed and
- UD Udorthents – urban land complex (with 0 to 3 percent slopes).

The Downer series soils are well-drained soils that are found on uplands and terraces. The soils are formed in acid, silty coastal plain sediments. The Freehold soils are also well drained and are formed in acid, loamy, coastal plain sediments that, by volume, are 1 to 10 percent glauconite and are found on uplands. The Holmdel series consists of moderately well drained or somewhat poorly drained soils on uplands. The soils are

formed in acid, loamy, coastal plain sediments that have 2 to 10 percent glauconite by volume. The Humaquepts soils are somewhat poorly- to very poorly- drained soils that are formed in stratified, sandy, or loamy sediments of fluvial origins. The Humaquepts soils are located on the floodplain and are subject to flooding several times each year. The Kresson loam is a nearly level to gently sloping soil and is somewhat poorly drained. The soil is found on low divides and in depressions. The Shrewsbury soils consist of poorly drained soils or upland flats that are formed in acid, loamy, coastal sediments that, by volume, are as much as 10 percent glauconite. The Udorthents soils have been altered by excavation or filling activities, and may include old sand and gravel pits. In filled areas, these soils consist of loamy material that is more than 20 inches thick. The filled areas include floodplain, tidal marshes and areas with moderately well-drained to very poorly drained soils. Some Udorthent soils contain concrete, asphalt, metal and glass. The soils in the vicinity of Site 2567 are classified as HUA – Holmdel sandy loam/urban land complex (**Figure 2-8**).

2.4.4 Topography and Surface Drainage

Over the last 80 years, the natural topography of Fort Monmouth has been altered by excavation and filling activities by the military. Site 2567 is located just north of the floodplain of Wampum Brook. The USGS topographic map (**Figure 2-1**) shows that the land surface of the site is relatively flat at an elevation of approximately 30 to 35 feet above mean sea level (amsl).

Surface water bodies in the vicinity of the Charles Wood area include two unnamed tributaries of Wampum Brook. Wampum Brook is joined by several unnamed tributaries east of Charles Wood, prior to becoming Wampum Lake. Wampum Lake discharges into Mill Creek, which flows toward the Main Post area.

The U.S. Fish and Wildlife Service (FWS) National Wetland Inventory Long Branch quadrangle maps indicate the presence of several wetlands at the Main Post and Charles Wood areas. In the Charles Wood Area, the golf course lake is classified as palustrine open water/unknown bottom, and several areas along the unnamed tributaries of Wampum Brook are classified as palustrine forested wetland, broad-leaved deciduous.

Based on the topography of the area, surface water runoff is expected to flow in a southeast direction toward Wampum Brook. There are drainage ditches that run south along Hope Road and an unnamed tributary/drainage ditch that crosses underneath Hope Road about 200 feet south of Site 2567 (**Figure 2-2**). Surface water runoff from Site 2567 drains into these ditches and flows south then east into Wampum Brook.

3.0 SITE ACTIVITIES

Fort Monmouth DPW has conducted remedial investigation activities, including a groundwater sampling program, to define the areal extent of potential pollutants and evaluate impacts to groundwater in the vicinity of Site 2567. Remedial investigation activities were performed from September 1991 and continued through January 2004. These activities were managed by the Fort Monmouth DPW and performed by TECOM-Vinnell Services (TVS). The details of remedial investigation activities that occurred at Site 2567 are described in the following sections.

3.1 Well Installation

A total of seven monitoring wells (2567-MW1, 2567-MW2, 2567-MW3, 2567-MW4, 2567-MW5, 2567-MW6 and 2567-MW7) comprise the quarterly groundwater monitoring program conducted by the DPW. Four of the seven monitoring wells were installed in 1991 during the Weston UST closure and site investigation (2567-MW1, 2567-MW2, 2567-MW3 and 2567-MW4). One monitoring well was installed in 1994 (2567-MW5), and the remaining two monitoring wells were installed by the DPW in 2000 (2567-MW6 and 2567-MW7). **Figure 2-3** shows the locations of the monitoring wells at Site 2567. The location of each well was strategically selected by the DPW to monitor possible contaminants released into the groundwater due to the former USTs located at Building 2567. Monitoring well construction details are discussed in **Section 2.2** and are summarized in **Table 2-1**. Well boring logs and monitoring well records are provided in **Appendix E**.

3.2 Groundwater Monitoring Well Sample Collection Activities

As part of the remedial investigation, a quarterly groundwater sampling program was conducted from April 1997 through January 2004 at Site 2567. Sampling activities were performed in accordance with the *Fort Monmouth Standard Sampling Operating Procedure* (December 1997). Laboratory analyses of the samples collected at Site 2567 were conducted at the Fort Monmouth Environmental Testing Laboratory (FMETL), a New Jersey certified laboratory (Certification No. 13461).

Five monitoring wells (2567-MW1, 2567-MW2, 2567-MW3, 2567-MW4 and 2567-MW5) were sampled during 28 quarterly sampling rounds (#1 through #28) from June 1997 through January 2004 and two low-flow sampling rounds for a total of 30 quarterly sampling rounds. Monitoring wells 2567-MW6 and 2567-MW7 were incorporated later into the quarterly monitoring program and sampled from August 2000 through January 2004 during 15 quarterly rounds (#14 through #28) and two low-flow sampling rounds for a total of 17 quarterly sampling rounds.

During the 30 rounds of quarterly groundwater sampling, a total of 240 groundwater samples, including 31 duplicate samples, 33 field blanks and 28 trip blanks for quality assurance/quality control (QA/QC), were collected from seven monitoring wells. The quarterly groundwater samples were analyzed as follows:

- During quarterly sampling rounds #1 and #2, VOCs plus 15 TICs were analyzed using USEPA Method 624, and lead was analyzed using USEPA Method 3113B.
- During quarterly sampling rounds #3 and #4, VOCs plus 15 TICs were analyzed using USEPA Method 624, SVOCs plus 25 TICs were analyzed using USEPA Method 625, pesticides and PCBs were analyzed using USEPA Method 608, and TAL metals were analyzed using USEPA Methods 3120B and 3112B.
- During quarterly sampling rounds #5 through #28, VOCs plus 15 TICs were analyzed using USEPA Method 624, and lead was analyzed using USEPA Method 3120B.

A summary of the groundwater sampling activities, including rounds, well IDs, sample IDs, sample locations, collection/analysis date, analytical parameters and analysis method, is provided in **Table 3-1**. Copies of the groundwater sampling chain-of-custody forms and laboratory data sheets are presented in **Appendix G**. The results of the quarterly groundwater monitoring program for Site 2567 are discussed in **Section 5.1**.

In consideration of the potential benefits of the low-flow sampling procedure, two additional rounds of low-flow sampling (Low Flow #1 and Low Flow #2) were conducted from May 31-June 5, 2001 and June 25-26, 2001. A total of 21 samples, including three duplicate samples and four field blanks, were collected and analyzed for TAL metals to determine whether elevated metal concentrations observed in the groundwater samples at Site 2567 are due to entrained soil particles (e.g., high turbidity) rather than dissolved phased groundwater constituents. The samples were analyzed by the FMETL for TAL metals utilizing USEPA Methods 3120B and 3112B.

Sampling equipment was thoroughly decontaminated before and after each use, in accordance with the *Fort Monmouth Standard Sampling Operating Procedure* (1997). Following collection, groundwater samples were immediately placed in laboratory-supplied bottleware. The sample containers were labeled, sealed, packed in ice and transported to the FMETL under proper chain-of-custody procedures.

During each of the monitoring well sampling rounds, aquifer chemical characteristics including pH, temperature, conductivity and dissolved oxygen (DO) were recorded prior to sampling. These chemical characteristics are included in the laboratory data packages. The aquifer DO data is presented in **Section 5.3** and discussed in **Section 6.1.3**.

3.3 Geoprobe® Groundwater Sample Collection Activities

In order to evaluate groundwater conditions and potential COC migration at Site 2567, additional Geoprobe® groundwater samples were collected from seven points in February and April 2004. Sampling activities were performed in accordance with the *Fort Monmouth Standard Sampling Operating Procedure* (December 1997). Laboratory analyses of the samples collected at Site 2567 were conducted at the Fort Monmouth Environmental Testing Laboratory (FMETL), a New Jersey certified laboratory (Certification No. 13461).

Seven Geoprobe[®] sampling points (GW-1, GW-2, GW-3, W-1, W-2, W-3 and W-4) were sampled during two separate sampling events in February and April 2004.

During the two Geoprobe[®] groundwater sampling events, a total of 13 groundwater samples, including two duplicate samples, two field blanks and two trip blanks for QA/QC, were collected from the seven Geoprobe[®] points. The Geoprobe[®] groundwater samples were analyzed as follows:

- During the two sampling events, VOCs plus 15 TICs were analyzed using USEPA Method 624.

A summary of the Geoprobe[®] groundwater sampling activities, including Geoprobe[®] point IDs, sample IDs, sample locations, collection/analysis date, analytical parameters and analysis method, is provided in **Table 3-2**. Copies of the groundwater sampling chain-of-custody forms and laboratory data sheets are presented in **Appendix H**. The results of the Geoprobe[®] groundwater sampling program for Site 2567 are discussed in **Section 5.2**.

Sampling equipment was thoroughly decontaminated before and after each use, in accordance with the *Fort Monmouth Standard Sampling Operating Procedure* (1997). Following collection, groundwater samples were immediately placed in laboratory-supplied bottleware. The sample containers were labeled, sealed, packed in ice and transported to the FMETL under proper chain-of-custody procedures.

3.4 Groundwater Depth Measurements

During each of the 30 groundwater monitoring rounds conducted at Site 2567 (including the 28 quarterly monitoring rounds and two low-flow rounds), measurements of the depth to water in each of the monitoring wells was recorded with an accuracy of 0.01 feet. These depth to groundwater measurements, recorded from 1997 through 2004, are presented in **Table 3-2**. The groundwater elevation at each well was calculated by subtracting the measured depth to groundwater from the elevation of the top of the well casing. Groundwater elevations are discussed in **Section 4.2**.

3.5 Slug Testing Procedures

Versar conducted slug testing on the seven monitoring wells located at Site 2567 from August 16-17, 2001. The slug testing was performed to estimate hydrogeologic properties of the shallow soils at this site, such as groundwater velocity, to be used for contaminant transport modeling. The equipment used to perform the slug testing included a Hermit Environmental Data logger (Model 1000C), a 10-psi pressure transducer, and a 4-foot long, 3.5-inch diameter PVC slug.

The slug testing was performed by first recording the depth to top of groundwater, then placing the slug and the transducer into the well and allowing the water to equilibrate to a

level close to the original water level. The new water level was set as the reference water level for the data logger during the slug test. The slug was then removed and the data logger recorded the changing water level with time. The collected data were then transferred to a personal computer for later review and reduction. The raw data are presented in **Appendix H**. The results are discussed in **Section 4.2**.

3.6 Sensitive Receptors and Well Search

Searches were conducted using various databases and historical information to identify receptors and groundwater wells that may be potentially affected by Site 2567. An Offsite Receptor Report (dated October 24, 2001) was prepared for Site 2567 by Environmental Data Resources, Inc. (EDR).

In addition, a search of the comprehensive well database maintained by the NJDEP Well Permitting and Regulations Section of the Bureau of Water Allocation was performed to identify groundwater wells that may potentially be affected by Site 2567. The search was performed for a one-mile radius surrounding the central point of the Site 2567. A copy of the sensitive receptor survey is provided in **Appendix I** and a copy of the well search summary is provided in **Appendix J**. The results of the sensitive receptor survey and well search are discussed in **Section 6.2**.

4.0 SITE PHYSICAL CHARACTERISTICS

The following sections represent the findings of the geologic and hydrogeologic characterization program for Site 2567. These sections include a detailed discussion of the physical properties of the unconsolidated soil, bedrock and groundwater underlying the study area. Groundwater elevation data collected by the DPW from August 1997 through January 2004 are presented in this section.

4.1 Lithology

The lithology encountered at Site 2567 consists primarily of fill material, fine sand, silt and clay. Two geologic cross-sections were prepared for Site 2567. Geologic cross-sections A-A' and A-A'' were based on the boring logs of monitoring wells in the study area, as well as the locations of underground utilities. The geologic cross-section location map is included as **Figure 4-1**. Geologic cross-sections A-A' (**Figure 4-2**) and A-A'' (**Figure 4-3**) include the locations of underground utility pipes, which are discussed with regard to shallow groundwater flow in **Section 4.2**. The data used to construct the geologic cross-sections are presented in **Table 4-1** (data for geologic cross-section A-A') and **Table 4-2** (data for geologic cross-section A-A''). The boring logs used to create the cross-section data tables are contained in **Appendix E**.

Geologic cross-section A-A' (**Figure 4-2**) depicts the profiles for monitoring wells 2567-MW2, 2567-MW3 and 2567-MW6, and portrays the following lithology:

- In the boring of well 2567-MW2, asphalt was encountered at the surface, fill was encountered below the asphalt to a depth of 5 feet bgs, and native material was encountered beneath the fill to a depth of 13 feet bgs.
- In the boring of well 2567-MW3, asphalt was encountered at the surface, fill was encountered below the asphalt to a depth of 4 feet bgs, and native material was encountered beneath the fill to a depth of 13 feet bgs.
- In the boring of well 2567-MW6, topsoil and roots were encountered at the surface, fill was encountered below the topsoil to a depth of 5 feet bgs, and native material was encountered to a depth of 13 feet bgs.
- There are three underground utilities shown in geologic cross-section A-A': a 15-inch diameter sewer line, a 6-inch diameter gas line and a 15-inch diameter abandoned storm sewer line.
- Geologic cross-section A-A'' portrays an area of fill with unknown depth beneath the gas line, sanitary sewer line and abandon storm sewer line.

Geologic cross-section A-A'' (**Figure 4-3**) depicts the profiles for monitoring wells 2567-MW2, 2567-MW1 and 2567-MW5, and portrays the following lithology:

- As in geologic cross-section A-A' (**Figure 4-2**), the boring of well 2567-MW2, asphalt was encountered at the surface, fill was encountered below the asphalt to a depth of 5 feet bgs, and native material was encountered beneath the fill to a depth of 13 feet bgs.

- In the boring of well 2567-MW1, asphalt was encountered at the surface, fill was encountered below the asphalt to a depth of 4 feet bgs, and native material was encountered to a depth of 13 feet bgs.
- In the boring of well 2567-MW5, native material was encountered from the surface to a depth of 12.5 feet bgs. As an approximation, geologic cross-section A-A" shows approximately 1 foot of topsoil and roots at the surface of well 2567-MW5, which was not noted on the boring log for this well.
- There are three underground utilities shown on geologic cross-section A-A": one 6-inch diameter gas line, one gas main of unknown diameter, and one 36-inch diameter water main.
- Geologic cross-section A-A" portrays an area of fill with unknown depth and lithology surrounding the gas and water mains.
- Geologic cross-section A-A'' portrays an area of fill with a depth of at least 11 feet in the vicinity of the former UST excavation.

The fill encountered in the well borings at Site 2567 consisted of light orange to brown sand (Unit 3). Fill with unknown lithology is portrayed in **Figure 4-2** as Unit 7. The native material encountered in the well borings at Site 2567 consisted of poorly sorted brown, green, gray and black clay, silt and fine sand (Units 4, 5, 8, 9 and 10) and gray sand with well-rounded gravel (Unit 11). The lithology of the native material is consistent with the Tinton Sand (Minard, 1969).

4.2 Groundwater Flow

During the groundwater sampling program at Site 2567 (28 quarterly rounds and two low-flow rounds), groundwater was encountered in monitoring wells at Site 2567 at depths ranging from 1.69 to 12.20 feet bgs (**Table 3-2**) with a slight gradient toward the southeast. Groundwater velocity and flow directions were predicted based on the interpretation of groundwater contour maps and slug test results, as well as the locations of underground utilities.

4.2.1 Groundwater Flow Direction

In accordance with NJAC 7:26E-3.13(d)2iv, 15 groundwater contour maps were generated for Site 2567 based on groundwater depth measurements from the seven monitoring wells collected on August 22, 2000 (**Figure 4-4a**), November 1, 2000 (**Figure 4-4b**), February 9, 2001 (**Figure 4-4c**), May 8, 2001 (**Figure 4-4d**), August 15, 2001 (**Figure 4-4e**), November 9, 2001 (**Figure 4-4f**), February 26, 2002 (**Figure 4-4g**), May 28, 2002 (**Figure 4-4h**), August 20, 2002 (**Figure 4-4i**), October 28, 2002 (**Figure 4-4j**), February 26, 2003 (**Figure 4-4k**), June 11, 2003 (**Figure 4-4l**), July 22, 2003 (**Figure 4-4m**), October 7, 2003 (**Figure 4-4n**) and January 16, 2004 (**Figure 4-4o**). The groundwater underlying Site 2567 appears to be consistently flowing to the southeast. No significant variations in groundwater flow conditions were observed in these 15 groundwater contour maps. Groundwater elevation data are presented in **Table 3-2**.

4.2.2 Hydrogeologic Properties

As discussed in **Section 3.4**, Versar conducted slug testing of the seven monitoring wells located at Site 2567 on August 16 and 17, 2001. Versar used the computer software *Aquifer Test* by Waterloo Hydrogeologic, Inc. (version 3.01, 2001) to reduce the slug testing data using the Bouwer-Rice methodologies. Data plots generated by *Aquifer Test* are presented in **Appendix I**. A summary of the calculated conductivity values is presented in **Table 4-3**.

The calculated conductivity values range from 18.8 feet/day at monitoring well 2567-MW7 to 35.6 feet/day at Monitoring Well 2567-MW3, with a calculated geometric mean of 25.9 feet/day. The variability in the range of hydraulic conductivities is associated with the shallow depth of the monitoring wells, partial penetration into the aquifer, and the heterogeneous nature of the fill material at the site. The geometric mean is used instead of the average due to the commonly high range of variability in hydraulic conductivity measurements.

The groundwater flow gradient for the site was estimated using the groundwater elevation data discussed above. The groundwater flow gradient (i) is calculated by measuring the distance (L) between two equipotential lines h_1 and h_2 using the following equation:

$$i = \frac{h_1 - h_2}{L}$$

The groundwater flow gradient for Site 2567, based on water level measurements collected on February 9, 2001, was estimated at approximately 0.02 feet per foot.

Groundwater flow velocity (v) in the vicinity of the site was then estimated using the groundwater flow gradient (i), an estimated hydraulic conductivity (K) for the surrounding soils based on the slug test results, and an assumed porosity (α) in the following equation:

$$v = \frac{Ki}{\alpha}$$

The hydraulic conductivity (K) used in the calculation, 25.9 feet/day, is the geometric average based on the results of slug testing performed by Versar (**Table 4-3**). The porosity (α) was estimated at 40% using average values for silt and sands (Heath, USGS, 1989). The groundwater velocity for the site was calculated to be approximately 1.3 feet per day (equal to 475 feet per year) based on the February 9, 2001 water-level measurements.

As discussed in **Section 2.4.2**, Site 2567 is located within the Composite Confining Unit, which typically has low hydraulic conductivities (on the order of 0.1 feet per day). However, the higher hydraulic conductivity of the subsurface materials at Site 2567 is most likely due to the following factors:

- Fill material is present in the subsurface throughout much of Site 2567.
- The native material (Tinton Sand Formation) found at Site 2567, is comprised of relatively coarse material such as sand and sub-rounded quartz gravel.

5.0 SITE CHEMICAL CHARACTERIZATION

This section includes a discussion of the chemical characterization of Site 2567 based on the various samples collected and analyzed including 30 rounds of monitoring well samples. DPW personnel were responsible for the collection of samples during this remedial investigation. Sample analyses were performed by the FMETL. In **Section 5.1**, groundwater sampling results are presented for samples collected between April 1997 and January 2004. In **Section 5.1**, the groundwater sampling results are evaluated and one potential COC (TBA) is identified for groundwater at Site 2567.

5.1 Groundwater Monitoring Well Sampling Results

This section presents a discussion of the results of laboratory analyses performed for the 30 rounds (28 quarterly rounds plus two additional low-flow rounds) of groundwater samples collected from April 1997 through January 2004 from the seven monitoring wells (2567-MW1 through 2567-MW7) at Site 2567. The groundwater samples were collected and analyzed for VOCs plus 15 TICs, SVOCs plus 15 TICs, pesticides, polychlorinated biphenyls (PCBs) and TAL metals. The two low-flow sampling rounds were conducted from May 31 to June 5, 2001 and June 25-26, 2001 using a low-flow groundwater sampling technique for TAL metals.

As discussed in **Section 2.4.2**, Fort Monmouth is underlain by a Class III-A aquifer. The appropriate groundwater quality criteria for Class III-A are the criteria for the most stringent classification for vertically or horizontally adjacent ground waters that are not Class III-A (NJAC 7:9-6.7e). The NJDEP criteria used for comparison of groundwater analytical results were the higher of the Practical Quantitation Limits (PQLs) and the NJDEP GWQC for Class II-A aquifers (NJAC 7:9-6, Table 1). Analytes detected in groundwater monitoring well samples at Site 2567 at concentrations above the NJDEP criteria are bold and highlighted in **Table 5-1**. The chain-of-custody forms for groundwater monitoring well samples and laboratory data sheets are provided in **Appendix G**. **Figure 5-1** shows the distribution of COCs for groundwater within the area of Site 2567.

During the 30 quarterly sampling events, a total of 11 VOCs were detected in site groundwater. Four VOCs were detected at concentrations that exceeded their respective GWQC in at least one sample, while the remaining seven VOCs were detected below their respective GWQC. A total of four SVOCs were detected in site groundwater below their respective GWQC. No pesticides or PCBs were detected in site groundwater. A total of 18 metals were detected in site groundwater. Five metals were detected at concentrations that exceed their respective GWQC in at least one sample, while the remaining 13 metals were detected below their respective GWQC.

Analytes exceeding the NJDEP GWQC in groundwater samples are presented in four subsections: VOCs (**Section 5.1.1**), SVOCs (**Section 5.1.2**), Pesticides and PCBs (**Section 5.1.3**) and TAL Metals (**Section 5.1.4**).

5.1.1 VOCs

During 30 quarterly sampling events, four VOCs were detected in site groundwater at concentrations that exceeded their respective GWQC in at least one sample.

Benzene was detected at concentrations exceeding the GWQC of 1.0 ug/L in eight rounds of sampling collected at two monitoring well locations. Concentrations ranged from 1.03 ug/L (sampling round #8) in 2567-MW3 to 39.4 ug/L (sampling round #2) in 2567-MW1.

Methylene chloride was detected at concentrations exceeding the interim GWQC of 2.0 ug/L in one round of sampling collected at one monitoring well location at a concentration of 25 ug/L (sampling round #2) in 2567-MW3.

MTBE was detected at concentrations exceeding the interim GWQC of 70 ug/L in four rounds of sampling collected at two monitoring well locations. Concentrations ranged from 81.82 ug/L (sampling round #5) in 2567-MW3 to 240 ug/L (sampling round #2) in 2567-MW1.

TBA was detected at concentrations exceeding the interim GWQC of 100 ug/L in 24 rounds of sampling collected at two monitoring well locations. Concentrations ranged from 143.26 ug/L (sampling round #7) in 2567-MW1 to 1,488.05 ug/L (sampling round #2) in 2567-MW1.

5.1.2 SVOCs

No SVOCs were detected above the appropriate GWQC at the site.

5.1.3 Pesticides and PCBs

No pesticides or PCBs were detected at the site.

5.1.4 TAL Metals

During 30 quarterly sampling events, five metals were detected in groundwater samples at concentrations above their respective NJDEP GWQC.

Aluminum was detected at concentrations exceeding the GWQC of 200 ug/L in four rounds of sampling collected at five monitoring well locations. Concentrations ranged from 261 ug/L (sampling round #4) in 2567-MW2 to 1,832 ug/L (sampling round #4) in 2567-MW3.

Iron was detected at concentrations exceeding the GWQC of 300 ug/L in four rounds of sampling collected at seven monitoring well locations. Concentrations ranged from 3,290 ug/L (Low Flow #2) in 2567-MW6 to 19,180 ug/L (sampling round #3) in 2567-MW5.

Lead was detected at concentrations exceeding the GWQC of 10 ug/L in seven rounds of sampling collected at two monitoring well locations. Concentrations ranged from 10.7 ug/L (sampling round #1) to 49.5 ug/L (sampling round #23) in 2567-MW5.

Manganese was detected at concentrations exceeding the GWQC of 50 ug/L in four rounds of sampling collected at six monitoring well locations. Concentrations ranged from 56.4 ug/L (sampling round #4) in 2567-MW5 to 271.8 ug/L (sampling round #3) in 2567-MW2.

Sodium was detected at concentrations exceeding the GWQC of 50,000 ug/L in two rounds of sampling collected at two monitoring well locations. Concentrations ranged from 51,200 ug/L (Low Flow #1) in 2567-MW1 to 98,300 ug/L (Low Flow #1) in 2567-MW2.

5.2 Groundwater Geoprobe® Point Sampling Results

This section presents a discussion of the results of laboratory analyses performed for the groundwater samples collected in February and April 2004 from the seven Geoprobe® points (GW-1, GW-2, GW-3, W-1, W-2, W-3 and W-4) at Site 2567. The groundwater samples were collected and analyzed for VOCs plus 15 TICs.

As discussed in **Section 2.4.2**, Fort Monmouth is underlain by a Class III-A aquifer. The appropriate groundwater quality criteria for Class III-A are the criteria for the most stringent classification for vertically or horizontally adjacent ground waters that are not Class III-A (NJAC 7:9-6.7e). The NJDEP criteria used for comparison of groundwater analytical results were the higher of the PQLs and the NJDEP GWQC for Class II-A aquifers (NJAC 7:9-6, Table 1). Analytes detected in Geoprobe® point groundwater samples at Site 2567 at concentrations above the NJDEP criteria are bold and highlighted in **Table 5-2**. The chain-of-custody forms for groundwater Geoprobe® point samples and laboratory data sheets are provided in **Appendix H**. **Figure 5-1** shows the distribution of COCs for groundwater within the area of Site 2567.

During the one sampling event, a total of two VOCs, MTBE and TBA, were detected in site groundwater at concentrations below their respective GWQC in at least one sample.

5.3 Potential COCs

In order to determine the contaminants of concern at Site 2567, the first step was to identify exceedences of the NJDEP criteria. These exceedences are presented in **Section 5.1** and **Section 5.2** above and in **Table 5-1** and **Table 5-2**. There were several factors that were used to eliminate or identify analytes as COCs. These factors include the magnitude and frequency of the exceedences, comparisons to low-flow sampling results (for metals only) and comparisons to established background concentrations. **Table 5-3** summarizes the process used to identify contaminants of concern at Site 2567.

There were four VOCs (benzene, methylene chloride, MTBE and TBA) that were detected in groundwater at concentrations exceeding the GWQC. Of the four VOCs detected above the NJDEP GWQC, three are considered to be uncharacteristic (benzene, MTBE and TBA), as discussed below:

- Benzene has not been detected in monitoring wells at Site 2567 above its NJDEP criteria of 1.0 ug/L since May 1999 and it has not been detected at all in monitoring wells since July 1999. Benzene was not detected in any of the Geoprobe[®] points. Although benzene was identified as a contaminant at Site 2567 in the 1995 Weston SI and closure report, due to the magnitude and frequency of its exceedences, benzene is no longer considered to be a COC.
- Methylene chloride exceeded the NJDEP criteria of 3.0 ug/L in only one groundwater monitoring well sample collected at Site 2567 since April 1997 and is therefore not considered to be a COC.
- MTBE has not been detected in groundwater samples at Site 2567 at concentrations exceeding its GWQC since June 1998. MTBE was not detected in any of the Geoprobe[®] points at concentrations exceeding its GWQC. Although MTBE was identified as a contaminant at Site 2567 in the 1995 Weston SI and closure report, due to the magnitude and frequency of its exceedences, MTBE is no longer considered to be a COC.
- TBA was detected above the NJDEP criteria of 100 ug/L during 23 rounds of sampling conducted at monitoring well 2567-MW1. TBA was also detected above the NJDEP criteria of 100 ug/L during one round of groundwater sampling at monitoring well 2567-MW3 (in August 1997). TBA was detected in one of the seven Geoprobe[®] points at a concentration below its GWQC. Based on these results, TBA is determined to be a COC at Site 2567.

There were no SVOCs detected at concentrations exceeding the GWQC, and therefore no SVOCs are considered COCs at Site 2567. In addition, there are no pesticides or PCBs considered to be COCs at Site 2567 because none were detected in groundwater samples at the site.

There were five metals that were detected in site groundwater at concentrations exceeding the NJDEP GWQC (aluminum, iron, lead, manganese and sodium). The specific exceedences and the identification of each of these metals as a potential contaminant of concern are discussed below. As presented in the Weston SI Report (1995), several natural and man-made factors contribute to the wide range in concentrations of metals in soils, which further impact the concentration of metals in groundwater. Soils derived from the glauconitic sands contain abundant aluminum, calcium, potassium, iron, magnesium and manganese (among others), which are likely to be present at elevated concentrations in the groundwater, particularly when sediments are entrained in the collected groundwater samples. A low-flow sampling methodology was proposed for use by the DPW and accepted by the NJDEP to assess the impact of suspended sediments on the dissolved phase metals concentrations at the site. Using a low-flow sampling methodology to reduce the presence of suspended sediment yielded substantial reductions in the dissolved phase concentrations of metals, particularly for the

constituents regarded as “non-native” (e.g., arsenic, antimony, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, silver, thallium, vanadium). Significant decreases in the concentrations of naturally occurring metals have been observed when the low-flow sampling procedure was used prior to analysis, including the results for aluminum, barium, calcium, copper, iron, magnesium, manganese, nickel, potassium, sodium and zinc. However, the native metal constituents (e.g., those indigenous to the soil types present at Fort Monmouth) were consistently present in the groundwater, even when the low-flow sampling methodology was employed.

The five different metals that were detected in site groundwater at concentrations exceeding the NJDEP GWQC are distinguished into background and non-native metals. The indigenous metals are compared to the Main Post Maximum Background Concentrations (MBC) identified in the Weston SI Report (1995), which are presented in **Tables 5-1** and **5-3**. The non-native metals are discussed in relation to the NJDEP GWQC only.

Of the five metals detected in site groundwater that exceed the NJDEP cleanup criteria, four metals (aluminum, iron, manganese and sodium) are common background constituents in Monmouth County soils. The water chemistry in areas underlain by glauconitic sediments (such as Red Bank, Tinton and Hornerstown Sands) is dominated by calcium, magnesium, manganese, aluminum and iron. Elevated concentrations of these metals are routinely observed in groundwater samples collected at Fort Monmouth. In consideration of these facts, the groundwater analytical results for these eight metals were compared to their respective MBCs of 121,000 ug/L (aluminum), 431,000 ug/L (iron), 331 ug/L (manganese), and 21,500 ug/L (sodium). Aluminum, iron and manganese are not considered to be COCs because these metals did not exceed their respective MBC. Sodium is not considered to be a COC due to the proximity of Site 2567 to sea water.

There was one non-native metal that exceeded its GWQC (lead). Lead is not considered to be a COC at Site 2567 because there were only seven exceedences of NJDEP criteria in groundwater samples collected at two monitoring well locations.

Two separate rounds of sampling (May 31 to June 5, 2001, and June 25-26, 2001) were performed during the groundwater sampling program using the low-flow groundwater sampling technique as discussed in **Section 3.2.1**. This technique was used to determine if the detected metal concentrations observed in the groundwater samples are a function of entrained sediments suspended in the groundwater during the course of well purging and sampling activities, or an accurate representation of dissolved phase aquifer/groundwater conditions. Since the five metals detected above the GWQC at Site 2567 were not considered to be COCs through other reasons (as discussed above), the low-flow sample results do not affect the determination of the COCs.

Based on the magnitude of the exceedences, the frequency of occurrences and the wide-ranging results, one VOC (TBA) is identified as potential COC at Site 2567 and is given

further consideration with regard to contaminant migration potential in **Section 6.0** of this RIR. No other potential COCs were identified at Site 2567.

5.4 Dissolved Oxygen

During each of the monitoring well sampling rounds, the DO of the groundwater was recorded prior to sampling. The average DO ranged from 1.85 mg/L in well 2567-MW7 to 3.31 in well 2567-MW5. The aquifer DO measurements for groundwater sampling rounds between April 1997 and January 2004 are shown in **Table 5-4**. The DO measurements are included in the laboratory data packages. The aquifer DO is discussed in more detail in **Section 6.1.3**.

6.0 CONTAMINANT MIGRATION AND GROUNDWATER USE DESIGNATION

As discussed above, there was one identified COCs in groundwater at Site 2567: TBA. The possible migration and degradation of this COC is discussed below.

Section 6.1 presents a groundwater model that addresses TBA biodegradation and migration at Site 2567. Predictions for the migration and change in TBA concentration over time are based on the most recent groundwater sampling results for TBA at Site 2567 and published biodegradation rates for TBA in groundwater. These model results are presented graphically and in tabular form.

Following the discussion of the groundwater migration model for Site 2567, **Section 6.2** presents the results of the sensitive receptor survey. A discussion of appropriate aquifer classification is provided in **Section 6.3**. The findings of the contaminant migration model and groundwater use designation are summarized in **Section 6.4**.

6.1 Groundwater Model Development

The parameters used in the groundwater flow model were based on Fort Monmouth survey data, published literature covering the hydrogeology of the region, as well as field measurements of groundwater elevation at the site (discussed in **Section 4.2**). A biodegradation spreadsheet model was used to predict the decay and contaminant transport of TBA at Site 2567. The biodegradation model incorporates the effects of horizontal groundwater flow, biodegradation and retardation.

6.1.1 Conceptual Site Model

Land surface at the Charles Wood Area is mostly flat with some moderate slopes, with elevation ranging from 20 feet amsl in the northeast to 60 feet amsl in the southwest. Site 2567 is located approximately 200 feet north of an unnamed tributary/drainage to Wampum Brook (**Figure 2-2**), which flows eastward into Wampum Brook. The USGS topographic map (**Figure 2-1**) shows that the land surface of the site is relatively flat with an elevation of approximately 30 feet amsl. Surface water runoff from Site 2567 is likely to flow south along Hope Road and into the unnamed tributary to Wampum Brook identified in **Figure 2-2**.

As discussed in **Section 2.4.1**, the geologic formations that outcrop at the Charles Wood Area of Fort Monmouth include the Tinton and Red Bank Sands, as well as the Hornerstown Formation. These formations, along with the Navesink Formation, are part of the Composite Confining Unit that overlies the Wenonah-Mount Laurel Aquifer (Zapeczka, 1990). A cross section of the New Jersey Coastal plain that shows these formations is presented in **Figure 6-1**.

As discussed in **Section 4.1**, the lithology encountered at Site 2567 consists primarily of fill material, fine sand, silt and clay. The well borings in the paved area of Site 2567 (2567-MW1 through 2567-MW4) encountered fill with a maximum depth ranging from 4 to 9 feet bgs. The fill consisted of light orange and light green sand. The native material encountered in the well borings consisted of brown, green and black clay, silt and fine sand, as well as gray sand with well-rounded gravel. The lithology of the native material is consistent with the Tinton Sand (Minard, 1969).

As discussed in **Section 4.2**, groundwater was encountered in the seven monitoring wells at Site 2567 at depths ranging from 1.69 to 12.20 feet bgs. The groundwater underlying Site 2567 appears to be consistently flowing to the southeast with a gradient of approximately 0.02 feet per foot.

6.1.2 Biodegradation Model

A Microsoft Excel spreadsheet (**Table 6-1**) was used to predict the biodegradation and migration of TBA at Site 2567. The biodegradation model incorporates the effects of horizontal groundwater flow, first-order biodegradation and retardation. The results of this biodegradation model are discussed with respect to possible offsite migration of the TBA at Site 2567. The model results were used to explain groundwater sample results for the one identified COC at Site 2567.

As discussed in **Section 5.1**, TBA was detected in well 2567-MW1 during 23 of the 30 rounds of sampling at concentrations in excess of the NJDEP criteria of 100 ug/L at concentrations ranging from 143.26 ug/L to 1,488.05 ug/L. In one round of sampling (sampling round #5), TBA was detected below the NJDEP criteria of 100 ug/L in well 2567-MW1 at a concentration of 95.63 ug/L. TBA was also detected above the NJDEP criteria of 100 ug/L in well 2567-MW3 in only one round (940 ug/L in sampling round #2). Due to the infrequent occurrences of TBA in well 2567-MW3, the biodegradation model does not address TBA contamination at this well. TBA was not detected in the other five wells sampled during the 30 rounds of groundwater samples collected and analyzed from Site 2567.

Due to the lack of a decreasing trend in the TBA detections in well 2567-MW1, a site-specific decay rate for TBA was not calculated. Instead, the first-order, aerobic decay constant of 0.0019 (1/day) was obtained from published results (high value listed in Howard, 1991) and used in the model. This published decay constant corresponds to a half-life of 365 days.

6.1.3 Dissolved Oxygen

The aerobic biodegradation of the COCs at Site 2567 is justified based on analysis of the DO observed during monitoring well sampling at Site 2567. During each sampling event at each well, DO was recorded while the wells were being purged. **Table 5-4** shows the DO measurements for the monitoring wells at Site 2567 during sampling events between April 1997 and January 2004.

Aerobic respiration is the first reaction in an aerobic environment that contains microorganisms capable of biodegradation (Wiedemeir, 1999). Once the available DO is depleted and anaerobic conditions dominate the interior regions of the organic contaminant plume, anaerobic microorganisms can utilize other electron acceptors in the following order of preference: nitrate, manganese, iron (III), sulfate and finally, carbon dioxide. As each electron acceptor being utilized for biodegradation becomes depleted, the next most preferable electron acceptor is utilized. Each successive redox couple provides less energy to the microorganism.

Aerobic degradation requires the presence of DO. If the subsurface environment becomes devoid of oxygen, the rate of aerobic biodegradation will typically be limited by oxygen supply rather than by nutrient concentration. For anaerobic biodegradation the microbial competition ultimately will determine the dominant process, but the dominant process can vary both temporally and spatially. Therefore, either iron (III) reduction, sulfate reduction or methanogenesis may dominate depending on seasonal variations in concentrations of DO and sulfate.

Using stoichiometry, a utilization factor can be developed showing the ratio of the oxygen consumed to the mass of DO consumed in the biodegradation reactions. Similarly, utilization factors can be developed to show the ratio of the mass of metabolic by-products (such as ferrous iron) that are generated to the mass of dissolved organic degraded in the biodegradation reactions. When the available electron acceptor/by-product concentrations are divided by the appropriate utilization factor, an estimate of the biodegradation capacity of the ground water flowing through the source zone and plume can be developed as follows:

Biodegradation Capacity (mg/L) =

$$\{(\text{Average Upgradient Electron Acceptor Concentration}) - (\text{Minimum Plume Zone Electron Acceptor Concentration})\} / \text{Utilization Factor}$$

The upgradient well used in the calculation of Biodegradation Capacity is well 2567-MW2. The plume zone is assumed to be located in the vicinity of well 2567-MW1. The following utilization factors and site biodegradation capacity, based on the degradation of benzene, MTBE and TBA, are calculated for Site 2567:

Contaminant of Concern	Upgradient Well	Average Upgradient Dissolved Oxygen (mg/L)	Plume Zone Well	Minimum Plume Zone Dissolved Oxygen (mg/L)	Utilization Factor	Site Biodegradation Capacity (mg/L)
Aerobic Biodegradation of Benzene: $C_6H_6 + 7.5O_2 \rightarrow 6CO_2 + 3H_2O$						
Benzene	2567-MW2	4.04	2567-MW3	1.00	3.08	0.98
Aerobic Biodegradation of MTBE: $C_5H_{12}O + 7.5O_2 \rightarrow 5CO_2 + 6H_2O$						
MTBE	2567-MW2	4.04	2567-MW3	1.00	2.73	1.11
Aerobic Biodegradation of TBA: $C_4H_{10}O + 6O_2 \rightarrow 4CO_2 + 5H_2O$						
TBA	2567-MW2	4.04	2567-MW1	1.40	0.385	6.85

The highest concentration of TBA detected at well 2567-MW1 (in February 2001) was 1,488.05 ug/L (=1.48805 mg/L). Based on the calculations presented in the preceding table and on site observations, groundwater has enough biodegradation capacity to degrade dissolved-phase TBA, if aerobic reactions are occurring at Site 2567

6.1.4 Model Results and Discussion

The TBA biodegradation model parameters and results for well 2567-MW1 is presented in **Table 6-1**. At monitoring well 2567-MW1, the initial TBA concentration was measured to be 1,488.05 ug/L on February 9, 2001. This concentration led to a predicted time of 3.9 years for compliance with the NJDEP criteria (100 ug/L). The migration distance of TBA from well 2567-MW1 is predicted to be 1,800 feet. The predicted TBA concentration at well 2567-MW1 is shown in **Figure 6-2**. **Figure 6-3** displays the area that is estimated to be impacted by future TBA migration.

The model predictions for TBA do not match observations of TBA concentrations in groundwater at Site 2567. If the TBA contamination will migrate approximately 1,800 feet in 3.9 years, as predicted in the biodegradation model, TBA should have already migrated to one of the three downgradient monitoring wells 2567-MW5, 2567-MW6 or 2567-MW7. However, TBA was not detected in any of these three monitoring wells in any of the sampling rounds presented in this RIR (see **Table 5-1**), and was also not detected in samples collected at well 2567-MW5 between May 1995 and April 1997. Additionally, TBA was not detected in six of seven groundwater Geoprobe® sampling points. Therefore, it appears that no significant migration of TBA has occurred at Site 2567.

6.2 Sensitive Receptor Survey Results

The sensitive receptor survey was completed by performing two tasks: an Offsite Receptor Report and an NJDEP well record search.

Offsite Receptor Report

An Offsite Receptor Report (dated October 24, 2001) was prepared for Site 2567 by EDR of Southport, Connecticut. A copy of the Offsite Receptor Report, identifying sensitive receptors in the area, is provided in **Appendix J**.

The Offsite Receptor Report indicates that there are seven schools and one daycare facility located within a one-mile of Site 2567. The seven schools were located between ½ and 1 mile from Site 2567. The day care facility is located approximately ½ mile south of Site 2567 and approximately ¼ mile south of Wampum Brook.

Well Record Search

A search of the comprehensive well database maintained by the NJDEP Well Permitting and Regulations Section of the Bureau of Water Allocation was performed by Versar to identify groundwater wells that may be potentially affected by contaminant migration at Site 2567. The search was performed for a one-mile radius surrounding the central point of Site 2567.

The well records obtained during the Well Search are provided in **Appendix K** and are summarized in **Table 6-2**. The wells designated for domestic or irrigation uses are presented in **Figure 6-4**. The migration distance of 1,800 feet, which is discussed above, was used as a basis for comparison. There were no domestic wells identified by records within 1,800 feet of Site 2567 with the following exception (though actual water use and physical presence were not verified):

NJDEP Permit #2919540
Permit Date: 11/9/87
Location: N40°17'33" W74°04'53"
Depth of well: 200 feet
Approximate distance from site: 1,400 feet (southwest)

Due to the significant distance of this one sensitive receptor to Site 2567, as well as the south to southeasterly groundwater flow direction from Site 2567, the concern for this groundwater receptor is minimal. The probability that any well in the vicinity of the site is being used for consumptive purposes is low, thus minimizing health-based risks associated with ingestion. Therefore, no sensitive receptors are likely to be impacted by the presence of COCs in the groundwater beneath Site 2567.

6.3 Aquifer Classification

Upon review of the NJDEP Groundwater Quality Standards (NJAC 7:9-6), January 7, 1993, Site 2567 is found to be underlain by a Class III-A aquifer. The primary designated use for Class III-A ground water is the release or transmittal of groundwater to adjacent classification areas and surface water, as relevant. Secondary designated uses in

Class III-A include any reasonable uses. For an area to be classified as a Class III-A aquifer, the groundwater must meet the following characteristics:

- Class III-A groundwater includes portions of the saturated zones (that meet the criteria below) of the Woodbury Formation, Merchantville Formation, Marshalltown Formation, Navesink Formation, Hornerstown Formation, aquitard formations of the Potomac-Raritan-Magothy aquifer system and the Kirkwood aquifer system, portions of the glacial moraine and glacial lake deposits, and other geologic units having the characteristics of an aquitard. Class III-A areas have the following characteristics (NJAC 7:9-6.5):
 - The average thickness of a Class III-A aquifer must be at least 50 feet
 - Typical hydraulic conductivity of a Class III-A aquifer is approximately 0.1 feet/day or less
 - The areal extent defined as Class III-A must be at least 100 acres.

The shallow aquifer at Site 2567 meets each of the four criteria listed above. These criteria are discussed below:

- The Charles Wood Area of Fort Monmouth is located within the outcrop area of the Composite Confining Unit (Martin, 1998), which includes the Red Bank Sand, Tinton Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation and the basal clay of the Kirkwood Formation (see **Section 2.4.2**). The thickness of the Composite Confining Unit in the vicinity of Fort Monmouth is approximately 125 feet.
- Published hydraulic conductivities (Martin, 1998) for the Composite Confining Unit yield a geometric mean of 0.12 feet per day, which is consistent with an aquitard.
- The Charles Wood area of Fort Monmouth is greater than 100 acres.

6.4 Contaminant Migration Summary

TBA was identified as the only COC in groundwater at Site 2567 using the NJDEP GWQC for Class II-A aquifers. The Class II-A criteria were used for comparison with site-specific data obtained from the various sampling rounds because the GWQS (NJAC 7:9-6.7e) state that the groundwater quality criteria to be used for Class III-A aquifers are the most stringent criteria associated with vertically or horizontally adjacent groundwaters that are not Class III-A.

Groundwater modeling and a sensitive receptor survey were conducted to determine whether groundwater from Site 2567 could impact surface water, off-site domestic wells and the subsurface groundwater aquifers. The groundwater modeling shows the impact of TBA migration in groundwater will be minimal. The results of the groundwater modeling (**Section 6.1**) and sensitive receptor survey (**Section 6.2**) are summarized below:

- The surface waters nearest to Site 2567 are the unnamed tributary to Wampum Brook and Wampum Brook. Using published biodegradation rates for TBA, the biodegradation model predicts that the TBA will degrade at well 2567-MW1 within 3.9 years. However, because downgradient sampling did not detect TBA, impacts to surface water are not expected.
- The sensitive receptor survey indicates that the closest downstream domestic well is approximately 1,400 feet southwest of the site, which is too far off the predicted groundwater flow direction to be impacted by COC migration.
- The risk of impacts to human health or to domestic animals associated with the ingestion of the TBA is negligible. It is unlikely that the well in the vicinity of the site is used for consumptive purposes due to poor overall water quality and low well yields. The potential migration of COCs from Site 2567 to this well in any reasonable time period is not possible.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Geologic publications show that Site 2567 is located within an aquitard (the Navesink-Hornerstown Confining Unit). The low hydraulic conductivity of the aquitard and the thickness of the aquitard at the site conform to the requirements of a Class III-A aquifer, as specified in the NJDEP GWQS (NJAC 7:9-6, January 7, 1993).

The analytical results for the groundwater samples collected between June 1997 and January 2004 indicate that TBA is a potential COC at Site 2567. The Class II-A criteria were used for comparison with site-specific data obtained from the various sampling rounds because the GWQS (N.J.A.C. 7:9-6.7e) state that the GWQC to be used for Class III-A aquifers are the most stringent criteria associated with vertically or horizontally adjacent groundwaters that are not Class III-A. Although previous investigations at Site 2567 did not address TBA as a potential COC, the current NJDEP interim groundwater criteria of 100 ug/L was used in reference to TBA concentrations in this RIR, and further remedial investigations should consider exceedences of this interim groundwater criteria.

Based on a review of the groundwater sampling results by the DPW and NJDEP, it appears that no significant migration of TBA has occurred at Site 2567. TBA degradation has the potential to occur at the site, based on the site results and the model. Continued monitoring of TBA degradation through natural attenuation is recommended at the site.

Quarterly groundwater sampling at Site 2567 will include groundwater samples collected from monitoring wells 2567-MW1, 2567-MW2, 2567-MW3, 2567-MW4, 2567-MW5, 2567-MW6 and 2567-MW7. The groundwater samples collected from these monitoring wells will be analyzed by the FMETL for VOCs plus 15 TICs. NJDEP GWQC for identified COC should be used for comparison to groundwater sampling results. A remedial action progress report will be submitted annually. The following table summarizes the groundwater sampling program at Site 2567.

Monitoring Well	Analyzed for	Future Sampling Status
2567-MW1	VOCs	Continue Quarterly Sampling
2567-MW2	VOCs	Continue Quarterly Sampling
2567-MW3	VOCs	Continue Quarterly Sampling
2567-MW4	VOCs	Continue Quarterly Sampling
2567-MW5	VOCs	Continue Quarterly Sampling
2567-MW6	VOCs	Continue Quarterly Sampling
2567-MW7	VOCs	Continue Quarterly Sampling

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TABLES

Table 2-1
Well Construction Summary
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey

Well ID	NJDEP Permit Number	Northing	Easting	Elevation of Inner Casing Survey Mark	Elevation of Ground Surface	Hole Diameter	Total Depth of Well	Depth to Top of Screen	Screen Length	Screen Diameter	Screen Material	Date of Construction
Units	--	ft	ft	ft (amsl) ⁽¹⁾	ft (amsl) ⁽¹⁾	in	ft (bgs) ⁽²⁾	ft (bgs) ⁽²⁾	ft	in	--	--
2567-MW1	29-26925	532956.749	609537.780	33.93	34.14	10	13.0	3.0	10.0	4.0	10 Slot PVC	9/31/91
2567-MW2	29-26926	533016.726	609468.755	35.26	35.28	10	13.0	3.0	10.0	4.0	10 Slot PVC	10/1/91
2567-MW3	29-26947	532939.317	609472.358	33.88	33.94	10	13.0	3.0	10.0	4.0	10 Slot PVC	10/1/91
2567-MW4	29-26948	533042.700	609544.264	33.51	33.64	10	12.0	2.0	10.0	4.0	10 Slot PVC	9/31/91
2567-MW5	29-31783	532871.131	609697.518	34.99	31.83	8	12.5	2.5	10.0	4.0	20 Slot PVC	9/23/94
2567-MW6	29-42585	532869.379	609542.569	35.10	32.86	8	13.0	3.0	10.0	4.0	10 Slot PVC	5/12/00
2567-MW7	29-42586	532879.489	609473.420	36.34	33.41	8	13.0	3.0	10.0	4.0	10 Slot PVC	5/12/00

Notes:

⁽¹⁾amsl = above mean sea level

⁽²⁾bgs = below ground surface

Where a difference in reported data exists between a monitoring well permit and the corresponding boring log, data from the permit was used.

The wells presented in this table were installed by the Department of Public Works (DPW) at Fort Monmouth, New Jersey.

NA = Not available

Well locations were recorded using Trimble GPS equipment in August 2001.

Table 3-1
Groundwater Monitoring Well Sample Collection Summary
Site 2567
Fort Monmouth, New Jersey

Round #	Sample ID	Monitoring Well ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters	Analysis Method
1	2446.01	Trip Blank	04/11/97	04/22/97	aqueous	Blank	VOCs +15	Method 624
	2446.02	Field Blank	04/11/97	04/22/97	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	2446.03	2567-MW4	04/11/97	04/22/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2446.04	2567-MW5	04/11/97	04/22/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2446.05	2567-MW2	04/11/97	04/22/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2446.06	2567-MW1	04/11/97	04/22/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2446.07	2567-MW3	04/11/97	04/22/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2446.08	Duplicate	04/11/97	04/22/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
2	2940.01	Trip Blank	08/28/97	09/02/97	aqueous	Blank	VOCs +15	Method 624
	2940.02	Field Blank	08/28/97	09/02/97	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	2940.03	2567-MW5	08/28/97	09/02/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2940.04	2567-MW2	08/28/97	09/02/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2940.05	2567-MW4	08/28/97	09/02/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2940.06	2567-MW3	08/28/97	09/02/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2940.07	2567-MW1	08/28/97	09/08/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2940.08	Duplicate	08/28/97	09/08/97	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
3	3188.01	Trip Blank	12/02/97	12/05/97	aqueous	Blank	VOCs +15	Method 624
	3188.02	Field Blank	12/02/97	12/05/97	aqueous	Blank	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3188.03	2567-MW2	12/02/97	12/05/97	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3188.04	2567-MW4	12/02/97	12/05/97	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3188.05	2567-MW5	12/02/97	12/06/97	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3188.06	2567-MW1	12/02/97	12/06/97	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3188.07	2567-MW3	12/02/97	12/06/97	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3188.08	Duplicate	12/02/97	12/10/97	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
4	3381.01	Trip Blank	03/04/98	03/06/98	aqueous	Blank	VOCs +15	Method 624
	3381.02	Field Blank	03/04/98	03/06/98	aqueous	Blank	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3381.03	2567-MW1	03/04/98	03/06/98	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3381.04	2567-MW2	03/04/98	03/06/98	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3381.05	2567-MW3	03/04/98	03/06/98	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3381.06	2567-MW4	03/04/98	03/06/98	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3381.07	Duplicate	03/04/98	03/06/98	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	3381.08	2567-MW5	03/04/98	03/06/98	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
5	3605.01	Trip Blank	06/01/98	06/02/98	aqueous	Blank	VOCs +15	Method 624
	3605.02	Field Blank	06/01/98	06/02/98	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3605.03	2567-MW1	06/01/98	06/02/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3605.04	2567-MW2	06/01/98	06/02/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3605.05	2567-MW3	06/01/98	06/02/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3605.06	2567-MW4	06/01/98	06/02/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3605.07	2567-MW5	06/01/98	06/02/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3605.08	Duplicate	06/01/98	06/02/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
6	3912.01	Trip Blank	09/24/98	10/05/98	aqueous	Blank	VOCs +15	Method 624
	3912.02	Field Blank	09/24/98	09/29/98	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3912.03	2567-MW4	09/24/98	09/29/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3912.04	2567-MW2	09/24/98	09/29/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3912.05	2567-MW1	09/24/98	09/29/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3912.06	Duplicate	09/24/98	09/29/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3916.01	Field Blank	09/25/98	10/06/98	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3916.02	2567-MW3	09/25/98	09/29/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3916.03	2567-MW5	09/25/98	09/29/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B

Notes:

GW : Groundwater

TAL metals : Target Analyte List metals

VOCs+15: Volatile Organic Compounds plus 15 tentatively identified compounds (TICs)

SVOCs+15: Semi-Volatile Organic Compounds plus 15 TICs

*Low Flow Sampling Method was used to collect sample

Table 3-1
Groundwater Monitoring Well Sample Collection Summary
Site 2567
Fort Monmouth, New Jersey

Round #	Sample ID	Monitoring Well ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters	Analysis Method
7	4144.01	Trip Blank	12/16/98	12/28/98	aqueous	Blank	VOCs +15	Method 624
	4144.02	Field Blank	12/16/98	12/28/98	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	4144.03	2567-MW1	12/16/98	12/28/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4144.04	2567-MW2	12/16/98	12/28/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4144.05	2567-MW3	12/16/98	12/28/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4144.06	2567-MW4	12/16/98	12/28/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4144.07	2567-MW5	12/16/98	12/28/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4144.08	Duplicate	12/16/98	12/28/98	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
8	4296.01	Trip Blank	02/24/99	02/26/99	aqueous	Blank	VOCs +15	Method 624
	4296.02	Field Blank	02/24/99	02/26/99	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	4296.03	2567-MW1	02/24/99	02/26/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4296.04	2567-MW2	02/24/99	02/26/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4296.05	2567-MW3	02/24/99	02/26/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4296.06	2567-MW4	02/24/99	02/27/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4296.07	2567-MW5	02/24/99	02/27/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4296.08	Duplicate	02/24/99	02/27/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
9	4524.01	Trip Blank	05/29/99	06/03/99	aqueous	Blank	VOCs +15	Method 624
	4524.02	Field Blank	05/29/99	06/01/99	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	4524.03	2567-MW1	05/29/99	06/01/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4524.04	2567-MW2	05/29/99	06/01/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4524.05	2567-MW3	05/29/99	06/01/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4524.06	2567-MW4	05/29/99	06/01/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4524.08	Duplicate	05/29/99	06/01/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4535.01	2567-MW5	06/08/99	06/10/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
10	4635.01	Trip Blank	07/21/99	07/22/99	aqueous	Blank	VOCs +15	Method 624
	4635.02	Field Blank	07/21/99	07/22/99	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	4635.03	2567-MW1	07/21/99	07/22/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4635.04	2567-MW2	07/21/99	07/22/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4635.05	2567-MW3	07/21/99	07/22/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4635.06	2567-MW4	07/21/99	07/22/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4635.07	2567-MW5	07/21/99	07/22/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4635.08	Duplicate	07/21/99	07/22/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
11	4871.01	Trip Blank	10/21/99	10/25/99	aqueous	Blank	VOCs +15	Method 624
	4871.02	Field Blank	10/21/99	10/25/99	aqueous	Blank	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	4871.03	Duplicate	10/21/99	10/25/99	aqueous	GW	VOCs+15; SVOCs+25; Pesticides; PCBs; TAL metals	Method 624; Method 625; Method 608; Methods 3112B and 3120B
	4872.01	2567-MW1	10/21/99	10/25/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4872.02	2567-MW2	10/21/99	10/25/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4872.03	2567-MW3	10/21/99	10/25/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4872.04	2567-MW4	10/21/99	10/25/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4872.05	2567-MW5	10/21/99	10/26/99	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
12	5167.01	Trip Blank	02/14/00	02/16/99	aqueous	Blank	VOCs +15	Method 624
	5167.02	Field Blank	02/14/00	02/15/00	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	5167.03	Duplicate	02/14/00	02/15/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5167.04	2567-MW1	02/14/00	02/15/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5167.05	2567-MW2	02/14/00	02/15/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5167.06	2567-MW3	02/14/00	02/15/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5167.07	2567-MW4	02/14/00	02/15/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5167.08	2567-MW5	02/14/00	02/15/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B

Notes:

GW : Groundwater

TAL metals : Target Analyte List metals

VOCs+15: Volatile Organic Compounds plus 15 tentatively identified compounds (TICs)

SVOCs+15: Semi-Volatile Organic Compounds plus 15 TICs

*Low Flow Sampling Method was used to collect sample

Table 3-1
Groundwater Monitoring Well Sample Collection Summary
Site 2567
Fort Monmouth, New Jersey

Round #	Sample ID	Monitoring Well ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters	Analysis Method
13	5417.01	2567-MW1	05/15/00	05/17/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5417.02	2567-MW2	05/15/00	05/17/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5417.03	2567-MW3	05/15/00	05/17/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5417.04	2567-MW4	05/15/00	05/17/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5417.05	2567-MW5	05/15/00	05/17/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5417.06	Trip Blank	05/15/00	05/17/00	aqueous	Blank	VOCs +15	Method 624
	5417.07	Field Blank	05/15/00	05/17/00	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	5417.08	Duplicate	05/15/00	05/17/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
14	5647.01	Trip Blank	08/22/00	08/31/00	aqueous	Blank	VOCs +15	Method 624
	5647.02	Field Blank	08/22/00	08/31/00	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	5647.03	Duplicate	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.04	2567-MW1	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.05	2567-MW2	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.06	2567-MW3	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.07	2567-MW4	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.08	2567-MW5	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.09	2567-MW6	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5647.10	2567-MW7	08/22/00	08/31/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
15	5825.01	Trip Blank	11/01/00	11/07/00	aqueous	Blank	VOCs +15	Method 624
	5825.02	Field Blank	11/01/00	11/07/00	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	5825.03	Duplicate	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.04	2567-MW1	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.05	2567-MW2	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.06	2567-MW3	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.07	2567-MW4	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.08	2567-MW5	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.09	2567-MW6	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	5825.10	2567-MW7	11/01/00	11/07/00	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
16	707	Trip Blank	02/09/01	02/10/01	aqueous	Blank	VOCs +15	Method 624
	708	Field Blank	02/09/01	02/10/01	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	709	Duplicate	02/09/01	02/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	710	2567-MW1	02/09/01	02/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	711	2567-MW2	02/09/01	02/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	712	2567-MW3	02/09/01	02/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	713	2567-MW4	02/09/01	02/12/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	714	2567-MW5	02/09/01	02/12/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	715	2567-MW6	02/09/01	02/12/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	716	2567-MW7	02/09/01	02/12/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
Low Flow #1	1615401	Field Blank	05/31/01	06/01/01	aqueous	Blank	TAL Metals	Method 3112B, 3120B
	1615405	Field Duplicate	05/31/01	06/01/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1615402	2567-MW05	05/31/01	06/01/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1615403	2567-MW04	05/31/01	06/01/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1615404	2567-MW01	05/31/01	06/01/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
Low Flow #1	1616801	Field Blank	06/05/01	06/05/01	aqueous	Blank	TAL Metals	Method 3112B, 3120B
	1616802	2567-MW3	06/05/01	06/05/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1616803	2567-MW2	06/05/01	06/05/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1616804	2567-MW7	06/05/01	06/05/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1616805	2567-MW6	06/05/01	06/05/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
Low Flow #2	1621101	Field Blank	06/25/01	06/25/01	aqueous	Blank	TAL Metals	Method 3112B, 3120B
	1621106	Field Duplicate	06/25/01	06/25/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621102	2567-MW1	06/25/01	06/25/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621105	2567-MW2	06/25/01	06/25/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621104	2567-MW3	06/25/01	06/25/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621103	2567-MW4	06/25/01	06/25/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
Low Flow #2	1621401	Field Blank	06/26/01	06/26/01	aqueous	Blank	TAL Metals	Method 3112B, 3120B
	1621405	Field Duplicate	06/26/01	06/26/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621404	2567-MW5	06/26/01	06/26/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621403	2567-MW6	06/26/01	06/26/01	aqueous	GW	TAL Metals	Method 3112B, 3120B
	1621402	2567-MW7	06/26/01	06/26/01	aqueous	GW	TAL Metals	Method 3112B, 3120B

Notes:

GW : Groundwater

TAL metals : Target Analyte List metals

VOCs+15: Volatile Organic Compounds plus 15 tentatively identified compounds (TICs)

SVOCs+15: Semi-Volatile Organic Compounds plus 15 TICs

*Low Flow Sampling Method was used to collect sample

Table 3-1
Groundwater Monitoring Well Sample Collection Summary
Site 2567
Fort Monmouth, New Jersey

Round #	Sample ID	Monitoring Well ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters	Analysis Method
17	1610701	Trip Blank	05/08/01	05/16/01	aqueous	Blank	VOCs+15	Method 624
	1610702	Field Blank	05/08/01	05/16/01	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	1610703	Duplicate	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610704	2567-MW1	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610705	2567-MW2	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610706	2567-MW3	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610707	2567-MW4	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610708	2567-MW5	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610709	2567-MW6	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1610710	2567-MW7	05/08/01	05/16/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
18	1635601	Trip Blank	08/15/01	08/23/01	aqueous	Blank	VOCs+15	Method 624
	1635602	Field Blank	08/15/01	08/23/01	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	1635603	Duplicate	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635604	2567-MW1	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635605	2567-MW2	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635606	2567-MW3	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635607	2567-MW4	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635608	2567-MW5	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635609	2567-MW6	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1635610	2567-MW7	08/15/01	08/23/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
19	1657301	Trip Blank	11/09/01	11/10/01	aqueous	Blank	VOCs+15	Method 624
	1657302	Field Blank	11/19/01	11/10/01	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	1657303	Duplicate	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657304	2567-MW1	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657305	2567-MW2	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657306	2567-MW3	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657307	2567-MW4	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657308	2567-MW5	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657309	2567-MW6	11/19/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	1657310	2567-MW7	11/09/01	11/10/01	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
20	2011201	Trip Blank	02/26/02	03/04/02	aqueous	Blank	VOCs+15	Method 624
	2011202	Field Blank	02/26/02	03/04/02	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	2011203	Duplicate	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011204	2567-MW1	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011205	2567-MW2	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011206	2567-MW3	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011207	2567-MW4	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011208	2567-MW5	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011209	2567-MW6	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2011210	2567-MW7	02/26/02	03/04/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
21	2033101	Trip Blank	05/28/02	06/06/02	aqueous	Blank	VOCs+15	Method 624
	2033102	Field Blank	05/28/02	06/06/02	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	2033103	Duplicate	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033104	2567-MW1	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033105	2567-MW2	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033106	2567-MW3	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033107	2567-MW4	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033108	2567-MW5	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033109	2567-MW6	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2033110	2567-MW7	05/28/02	06/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
22	2058501	Trip Blank	08/20/02	08/22/02	aqueous	Blank	VOCs+15	Method 624
	2058502	Field Blank	08/20/02	08/22/02	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	2058503	Duplicate	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058504	2567-MW1	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058505	2567-MW2	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058506	2567-MW3	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058507	2567-MW4	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058508	2567-MW5	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058509	2567-MW6	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2058510	2567-MW7	08/20/02	08/22/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B

Notes:

GW : Groundwater

TAL metals : Target Analyte List metals

VOCs+15: Volatile Organic Compounds plus 15 tentatively identified compounds (TICs)

SVOCs+15: Semi-Volatile Organic Compounds plus 15 TICs

*Low Flow Sampling Method was used to collect sample

Table 3-1
Groundwater Monitoring Well Sample Collection Summary
Site 2567
Fort Monmouth, New Jersey

Round #	Sample ID	Monitoring Well ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters	Analysis Method
23	2076201	Trip Blank	10/28/02	11/06/02	aqueous	Blank	VOCs +15	Method 624
	2076202	Field Blank	10/28/02	11/06/02	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	2076203	Duplicate	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076204	2567-MW1	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076205	2567-MW2	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076206	2567-MW3	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076207	2567-MW4	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076208	2567-MW5	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076209	2567-MW6	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	2076210	2567-MW7	10/28/02	11/06/02	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
24	3008301	Trip Blank	02/26/03	03/12/03	aqueous	Blank	VOCs +15	Method 624
	3008302	Field Blank	02/26/03	03/12/03	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3008303	Duplicate	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008304	2567-MW1	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008305	2567-MW2	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008306	2567-MW3	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008307	2567-MW4	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008308	2567-MW5	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008309	2567-MW6	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3008310	2567-MW7	02/26/03	03/12/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
25	3028301	Trip Blank	06/11/03	06/24/03	aqueous	Blank	VOCs +15	Method 624
	3028302	Field Blank	06/11/03	06/24/03	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3028303	Duplicate	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028304	2567-MW1	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028305	2567-MW2	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028306	2567-MW3	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028307	2567-MW4	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028308	2567-MW5	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028309	2567-MW6	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3028310	2567-MW7	06/11/03	06/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
26	3039701	Trip Blank	07/22/03	07/24/03	aqueous	Blank	VOCs +15	Method 624
	3039702	Field Blank	07/22/03	07/24/03	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3039703	Duplicate	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039704	2567-MW1	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039705	2567-MW2	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039706	2567-MW3	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039707	2567-MW4	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039708	2567-MW5	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039709	2567-MW6	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3039710	2567-MW7	07/22/03	07/24/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
27	3063401	Trip Blank	10/07/03	10/17/03	aqueous	Blank	VOCs +15	Method 624
	3063402	Field Blank	10/07/03	10/17/03	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	3063403	Duplicate	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063404	2567-MW1	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063405	2567-MW2	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063406	2567-MW3	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063407	2567-MW4	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063408	2567-MW5	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063409	2567-MW6	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	3063410	2567-MW7	10/07/03	10/17/03	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
28	4004301	Trip Blank	01/16/04	01/27/04	aqueous	Blank	VOCs +15	Method 624
	4004302	Field Blank	01/16/04	01/27/04	aqueous	Blank	VOCs+15; Lead	Method 624; Method 3113B
	4004303	Duplicate	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004304	2567-MW1	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004305	2567-MW2	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004306	2567-MW3	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004307	2567-MW4	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004308	2567-MW5	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004309	2567-MW6	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B
	4004310	2567-MW7	01/16/04	01/27/04	aqueous	GW	VOCs+15; Lead	Method 624; Method 3113B

Notes:

GW : Groundwater

TAL metals : Target Analyte List metals

VOCs+15: Volatile Organic Compounds plus 15 tentatively identified compounds (TICs)

SVOCs+15: Semi-Volatile Organic Compounds plus 15 TICs

*Low Flow Sampling Method was used to collect sample

Table 3-1
Groundwater Monitoring Well Sample Collection Summary
Site 2567
Fort Monmouth, New Jersey

Round #	Sample ID	Monitoring Well ID	Date Collected	Date Analysis Started	Matrix	Sample Type	Analytical Parameters	Analysis Method
1	4008901	Trip Blank	02/02/04	02/06/04	aqueous	Blank	VOCs +15	Method 624
	4008902	Field Blank	02/02/04	02/06/04	aqueous	Blank	VOCs+15	Method 624
	4008903	GW-1	02/02/04	02/06/04	aqueous	GW	VOCs+15	Method 624
	4008905	GW-2	02/02/04	02/06/04	aqueous	GW	VOCs+15	Method 624
	4008906	GW-3	02/02/04	02/06/04	aqueous	GW	VOCs+15	Method 624
	4008904	Duplicate	02/02/04	02/06/04	aqueous	GW	VOCs+15	Method 624
	4031601	Trip Blank	04/30/04	05/06/04	aqueous	Blank	VOCs+15	Method 624
	4031602	Field Blank	04/30/04	05/06/04	aqueous	Blank	VOCs+15	Method 624
	4031603	W-1	04/30/04	05/06/04	aqueous	GW	VOCs+15	Method 624
	4031604	W-2	04/30/04	05/06/04	aqueous	GW	VOCs+15	Method 624
	4031606	W-3	04/30/04	05/06/04	aqueous	GW	VOCs+15	Method 624
	4031607	W-4	04/30/04	05/06/04	aqueous	GW	VOCs+15	Method 624
	4031605	Duplicate	04/30/04	05/06/04	aqueous	GW	VOCs+15	Method 624

Notes:

GW : Groundwater

VOCs+15: Volatile Organic Compounds plus 15 tentatively identified compounds (TICs)

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

Round#: 1 2 3 4													
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	04/11/97	3.80	30.13	08/28/97	4.80	29.13	12/02/97	3.90	30.03	03/04/98	3.51	30.42
2567-MW2	35.26	04/11/97	3.40	31.86	08/28/97	4.30	30.96	12/02/97	3.45	31.81	03/04/98	2.92	32.34
2567-MW3	33.88	04/11/97	3.15	30.73	08/28/97	4.00	29.88	12/02/97	3.10	30.78	03/04/98	2.48	31.4
2567-MW4	33.51	04/11/97	2.55	30.96	08/28/97	3.20	30.31	12/02/97	2.45	31.06	03/04/98	2.11	31.4
2567-MW5	34.99	04/11/97	7.20	27.79	08/28/97	7.50	27.49	12/02/97	7.20	27.79	03/04/98	7.30	27.69
2567-MW6	35.10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2567-MW7	36.34	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

Round#:		5			5			6			7		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	06/01/98	4.06	29.87	NS	NS	NS	09/24/98	5.21	28.72	12/09/98	4.90	29.03
2567-MW2	35.26	06/01/98	3.59	31.67	NS	NS	NS	09/24/98	12.20	23.06	12/09/98	3.42	31.84
2567-MW3	33.88	06/01/98	3.99	29.89	06/19/98	3.99	29.89	09/25/98	4.56	29.32	12/16/98	4.25	29.63
2567-MW4	33.51	06/01/98	2.33	31.18	06/19/98	2.33	31.18	09/24/98	3.55	29.96	12/12/98	3.11	30.4
2567-MW5	34.99	06/01/98	7.55	27.44	NS	NS	NS	09/25/98	7.59	27.4	12/16/98	7.34	27.65
2567-MW6	35.10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2567-MW7	36.34	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

Round#:		8			9			10			11		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	02/24/99	3.75	30.18	05/29/99	4.20	29.73	07/21/99	5.48	28.45	10/21/99	4.03	29.9
2567-MW2	35.26	02/24/99	3.38	31.88	05/29/99	3.83	31.43	07/21/99	5.03	30.23	10/21/99	3.65	31.61
2567-MW3	33.88	02/24/99	3.16	30.72	05/29/99	3.55	30.33	07/21/99	4.85	29.03	10/21/99	3.93	29.95
2567-MW4	33.51	02/24/99	2.44	31.07	05/29/99	2.76	30.75	07/21/99	3.98	29.53	10/21/99	2.37	31.14
2567-MW5	34.99	02/24/99	8.16	26.83	06/08/99	7.33	27.66	07/21/99	7.87	27.12	10/21/99	8.57	26.42
2567-MW6	35.10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2567-MW7	36.34	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

Round#:		12			13			14			15		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	02/14/00	3.31	30.62	05/15/00	4.04	29.89	08/22/00	3.87	30.06	11/01/00	4.24	29.69
2567-MW2	35.26	02/14/00	3.00	32.26	05/15/00	3.77	31.49	08/22/00	3.51	31.75	11/01/00	4.15	31.11
2567-MW3	33.88	02/14/00	3.42	30.46	05/15/00	3.40	30.48	08/22/00	3.17	30.71	11/01/00	3.56	30.32
2567-MW4	33.51	02/14/00	1.69	31.82	05/15/00	2.65	30.86	08/22/00	2.49	31.02	11/01/00	2.91	30.6
2567-MW5	34.99	02/14/00	5.75	29.24	05/15/00	6.92	28.07	08/22/00	6.73	28.26	11/01/00	7.16	27.83
2567-MW6	35.10	NS	NS	NS	NS	NS	NS	08/22/00	7.06	28.04	11/01/00	7.26	27.84
2567-MW7	36.34	NS	NS	NS	NS	NS	NS	08/22/00	6.65	29.69	11/02/00	6.80	29.54

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

Round#:		16			Low Flow 1			Low Flow 2			17		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	02/09/01	3.30	30.63	02/09/01	3.30	30.63	02/09/01	3.30	30.63	05/08/01	4.15	29.78
2567-MW2	35.26	02/09/01	2.75	32.51	02/09/01	2.75	32.51	02/09/01	2.75	32.51	05/08/01	3.95	31.31
2567-MW3	33.88	02/09/01	2.50	31.38	02/09/01	2.50	31.38	02/09/01	2.50	31.38	05/08/01	3.40	30.48
2567-MW4	33.51	02/09/01	1.99	31.52	02/09/01	1.99	31.52	02/09/01	1.99	31.52	05/08/01	2.68	30.83
2567-MW5	34.99	02/09/01	5.26	29.73	02/09/01	5.26	29.73	02/09/01	5.26	29.73	05/08/01	7.47	27.52
2567-MW6	35.10	02/09/01	6.44	28.66	02/09/01	6.44	28.66	02/09/01	6.44	28.66	05/08/01	7.42	27.68
2567-MW7	36.34	02/09/01	6.23	30.11	02/09/01	6.23	30.11	02/09/01	6.23	30.11	05/08/01	7.02	29.32

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

Round#:		18			19			20			21		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	08/15/01	4.95	28.98	11/09/01	5.11	28.82	02/26/02	3.95	29.98	05/28/02	4.09	29.84
2567-MW2	35.26	08/15/01	4.65	30.61	11/09/01	4.81	30.45	02/26/02	3.86	31.4	05/28/02	3.83	31.43
2567-MW3	33.88	08/15/01	4.30	29.58	11/09/01	4.30	29.58	02/26/02	3.29	30.59	05/28/02	3.40	30.48
2567-MW4	33.51	08/15/01	3.50	30.01	11/09/01	3.65	29.86	02/26/02	2.71	30.8	05/28/02	2.83	30.68
2567-MW5	34.99	08/15/01	7.70	27.29	11/09/01	7.83	27.16	02/26/02	6.95	28.04	05/28/02	5.91	29.08
2567-MW6	35.10	08/15/01	8.15	26.95	11/09/01	8.09	27.01	02/26/02	6.82	28.28	05/28/02	7.29	27.81
2567-MW7	36.34	08/15/01	7.75	28.59	11/09/01	7.56	28.78	02/26/02	6.71	29.63	05/28/02	6.83	29.51

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

		Round#: 22			23			24			25		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	08/20/02	5.45	28.48	10/28/02	3.62	30.31	02/26/03	3.11	30.82	06/11/03	3.35	30.58
2567-MW2	35.26	08/20/02	5.13	30.13	10/28/02	3.32	31.94	02/26/03	2.71	32.55	06/11/03	3.00	32.26
2567-MW3	33.88	08/20/02	4.03	29.85	10/28/02	2.98	30.9	02/26/03	2.39	31.49	06/11/03	2.55	31.33
2567-MW4	33.51	08/20/02	3.96	29.55	10/28/02	2.26	31.25	02/26/03	1.84	31.67	06/11/03	2.15	31.36
2567-MW5	34.99	08/20/02	8.03	26.96	10/28/02	5.95	29.04	02/26/03	5.37	29.62	06/11/03	5.78	29.21
2567-MW6	35.10	08/20/02	8.78	26.32	10/28/02	6.62	28.48	02/26/03	6.24	28.86	06/11/03	6.50	28.6
2567-MW7	36.34	08/20/02	8.28	28.06	10/28/02	6.40	29.94	02/26/03	6.07	30.27	06/11/03	6.26	30.08

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 3-3
Groundwater Elevation Summary
Site 2567
Fort Monmouth, New Jersey

		Round#: 26			27			28		
Well ID	Elev. of Inner Casing Survey Mark	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.	Date	Depth to Water	Ground-water Elev.
2567-MW1	33.93	07/22/03	4.39	29.54	10/07/03	4.23	29.7	01/16/04	3.60	30.33
2567-MW2	35.26	07/22/03	3.91	31.35	10/07/03	3.89	31.37	01/16/04	3.42	31.84
2567-MW3	33.88	07/22/03	3.81	30.07	10/07/03	3.52	30.36	01/16/04	2.95	30.93
2567-MW4	33.51	07/22/03	2.62	30.89	10/07/03	2.75	30.76	01/16/04	2.37	31.14
2567-MW5	34.99	07/22/03	7.30	27.69	10/07/03	7.17	27.82	01/16/04	6.93	28.06
2567-MW6	35.10	07/22/03	7.61	27.49	10/07/03	7.31	27.79	01/16/04	6.65	28.45
2567-MW7	36.34	07/22/03	7.19	29.15	10/07/03	6.88	29.46	01/16/04	6.37	29.97

Notes:

- 1) Elev.: Elevation in feet
above mean sea level.
- 2) Depth to water: depth in feet
from the inner casing survey mark.
- 3) NS: Not Sampled

Table 4-1
Data for Geologic Cross-Section A-A'
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey

Well ID	Units	2567-MW2	2567-MW3	2567-MW6
Elevation of Top of Casing	ft (amsl)	35.26	33.88	35.1
Elevation of Ground Surface	ft (amsl)	35.28	33.94	32.86
Elevation of Top of Screen	ft (amsl)	32.28	30.94	29.86
Elevation of Groundwater (5/8/01)	ft (amsl)	31.31	30.48	27.68
Elevation of Top of Unit 4	ft (amsl)	30.28	NA	NA
Elevation of Top of Unit 5	ft (amsl)	27.28	29.94	NA
Elevation of Top of Unit 6	ft (amsl)	NA	NA	32.86
Elevation of Bottom of Well	ft (amsl)	22.28	20.94	19.86

Explanation of Units (see Minard, 1969):

Surface Materials:

- *Unit 1 = topsoil/roots
- *Unit 2 = asphalt/base stone
- *Unit 3 = light orange and brown sand - fill

Native Material (Tinton Sand or Hornerstown Sand Formation):

- Unit 4 = light green sand
- Unit 5 = dark brown/black clay with some fine sand
- Unit 6 = medium-fine sand

Notes:

*Shown in geologic cross section A-A' but not in table above

All measurements in feet.

amsl: above mean sea level

NA: Not Applicable

Unit numbering matches Geologic Cross Section A-A"

Table 4-2
Data for Geologic Cross-Section A-A"
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey

Well ID	Units	2567-MW2	2567-MW1	2567-MW5
Elevation of Top of Casing	ft (amsl)	35.26	33.93	34.99
Elevation of Ground Surface	ft (amsl)	35.28	34.14	31.83
Elevation of Top of Screen	ft (amsl)	32.28	31.14	29.33
Elevation of Groundwater (5/8/01)	ft (amsl)	31.31	29.78	27.52
Elevation of Top of Unit 1	ft (amsl)	0	NA	NA
Elevation of Top of Unit 2	ft (amsl)	30.28	NA	NA
Elevation of Top of Unit 3	ft (amsl)	27.28	32.14	NA
Elevation of Top of Unit 7	ft (amsl)	NA	NA	32.33
Elevation of Top of Unit 8	ft (amsl)	NA	NA	30.83
Elevation of Top of Unit 9	ft (amsl)	NA	NA	29.83
Elevation of Top of Unit 10	ft (amsl)	NA	NA	28.83
Elevation of Bottom of Well	ft (amsl)	22.28	21.14	19.33

Explanation of Units (see Minard, 1969):

Surface Materials:

*Unit 1 = topsoil/roots

*Unit 2 = asphalt/base stone

Unit 3 = light orange and brown sand - fill

Unit 4 = light green sand - fill

*Unit 7 = fill, unknown depth and lithology

Native Material (Tinton Sand Formation):

Unit 5 = dark brown/black clay with some fine green sand

Unit 8 = brown fine sand

Unit 9 = black, soft clay

Unit 10 = brown fine sand and silts

Unit 11 = gray medium sand with well-rounded gravel

Notes:

*Shown in geologic cross section A-A" but not in table

All measurements in feet.

amsl: above mean sea level

NA: Not Applicable

Unit numbering matches Geologic Cross Section A-A'

Table 4-3
Slug Testing Results Summary
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey

Well ID	Date	Depth to Static Water Level	DTW at t=0	b	DTW Adjustment	Hydraulic Conductivity (feet/day)
2567-MW1	8/17/2001	4.97	7.464	5.536	0.007	35.1
2567-MW2	8/17/2001	4.52	7.154	5.846	0.038	28.5
2567-MW3	8/17/2001	5.49	7.827	5.173	0.789	35.6
2567-MW4	8/17/2001	3.42	5.330	6.670	0.108	20.2
2567-MW5	8/17/2001	7.56	10.405	2.095	0.005	24.4
2567-MW6	8/17/2001	8.14	10.685	2.315	0.013	23.6
2567-MW7	8/16/2001	7.75	10.348	2.652	0.083	18.8

Geometric Mean of Hydraulic Conductivity (feet/day): 25.9

Notes:

DTW = Depth To Water

Depth to Static Water Level was estimated by subtracting 0.3 ft. from the measured DTW at the end of each test.

b = height of water in well at the beginning of the test.

DTW Adjustment = factor by which raw data was adjusted so final hermit data point equals final measured DTW.

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID			NJDEP	Site Specific	2446.06	2940.07	3188.06	3381.03	3605.03	3912.05	4144.03	4296.03	4524.03	4635.03	4872.01	5167.04	5417.01	5647.04	5825.04
Sample Date			Criteria	MBC ⁽¹⁾	04/11/97	08/28/97	12/02/97	03/04/98	06/01/98	09/24/98	12/16/98	02/24/99	05/29/99	07/21/99	10/21/99	02/14/00	05/15/00	08/22/00	11/01/00
Round No.					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Volatiles																			
Acetone	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	N/A	ND	39.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE ⁽³⁾	70	N/A	ND	240	20.3	37	24.23	10.02	3.43	26.15	9.16	3.33	4.8	12.05	5.24	1.2	15.04		
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	3.66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	ND	357	560	95.63	283	143.26	675	605.1	155.56	497.3	992	458.88	218.42	ND		
Toluene	1000	N/A	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes ⁽³⁾	1000	N/A	ND	72.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatiles																			
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	1.25	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Di-n-butylphthalate	900	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyridine ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides/PCBs					NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Metals																			
Aluminum	200	121000	NS	NS	128	186	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	2000	699	NS	NS	356.7	367.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	20	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	4	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	NLE	45400	NS	NS	46880	52030	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	100	N/A	NS	NS	1.8	3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NLE	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	1000	65.6	NS	NS	40	23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	431000	NS	NS	4112	5774	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	10	N/A	1.8	1.4	7	ND	0.5	ND	ND	ND	ND	ND	ND	1.3	1.31	ND	ND	ND	ND
Magnesium	NLE	62700	NS	NS	4970	5480	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	50	331	NS	NS	92.8	107.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	2	N/A	NS	NS	0.4	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	187	NS	NS	2.4	2.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	NLE	137000	NS	NS	7120	7390	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	50000	21500	NS	NS	76190	48910	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NLE	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	5000	233	NS	NS	63	37	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

Exceedences of NJDEP GWQS are shaded and **bold**

*Sampling results that exceeded calibration limits were not run again with dilution due to a laboratory error.

ND: Analyte not detected in sample

N/A: Not Applicable NS: Not Sampled

D: Diluted Sample

NLE: No cleanup standard exists for this analyte

⁽¹⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1	2567-MW1
			710	1615404	1621102	1610704	1635604	1657304	2011204	2033104	2058504	2076204	3008304	3028304	3039704	3063404	4004304	
			02/09/01	5/31/2001	6/25/2001	05/08/01	08/15/01	11/09/01	2/26/2002*	05/28/02	08/20/02	10/28/02	02/26/03	06/11/02	07/22/03	10/07/03	01/16/04	
Round No.			16	LF1 ⁽²⁾	LF2 ⁽²⁾	17	18	19	20	21	22	23	24	25	26	27	28	
Volatiles																		
Acetone	700	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽³⁾	70	N/A	4.83	NS	NS	2.1	ND	1.09	1.61	ND	ND	ND	ND	1.78	1.93	ND	2.08	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	1488.05	NS	NS	764.25	248.74	ND	859.38	331.75	441.16	259.69	828.6	186.42	205.86	175.48	224.08	
Toluene	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Metals																		
Aluminum	200	121000	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	526	0.528	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	68200	64.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	8580	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	ND	ND	ND	0.93	ND	ND	ND	ND	1.22	1.4	ND	ND	ND	ND	ND	
Magnesium	NLE	62700	NS	7900	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	148	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	6060	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	51200	47.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	9.4	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

Exceedences of NJDEP GWQS are shaded and **bold**

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N/A: Not Applicable NS: Not Sampled

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⁽¹⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2
			2446.05	2940.04	3188.03	3381.04	3605.04	3912.04	4144.04	4296.04	4524.04	4635.04	4872.02	5167.05	5417.02	5647.05	5825.05	
Round No.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Volatiles																		
Acetone	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.99	ND
Benzene	1	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE ⁽²⁾	70	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes ⁽³⁾	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	ND	6.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene ⁽³⁾	100	N/A	NS	NS	4.79	6.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Di-n-butylphthalate	900	N/A	NS	NS	1.08	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyridine ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides/PCBs			NS NS ND ND NS NS NS NS NS NS NS NS NS NS NS NS NS NS															
Metals																		
Aluminum	200	121000	NS	NS	78	261	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	2000	699	NS	NS	796.2	188.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	20	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	4	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	NLE	45400	NS	NS	67840	21250	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	100	N/A	NS	NS	1.7	1.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NLE	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	1000	65.6	NS	NS	8	23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	431000	NS	NS	16290	12450	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	10	N/A	10.7	ND	20	8	1.4	ND	ND	ND	ND	ND	1.2	1.49	ND	ND	ND	ND
Magnesium	NLE	62700	NS	NS	7520	2030	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	50	331	NS	NS	271.8	99.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	2	N/A	NS	NS	0.4	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	187	NS	NS	3.9	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	NLE	137000	NS	NS	8730	7880	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	50000	21500	NS	NS	58690	26640	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NLE	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	5000	233	NS	NS	53	93	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

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⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2	2567-MW2
			711	1616803	1621105	1610705	1635605	1657305	2011205	2033105	2058505	2076205	3008305	3028305	3039705	3063405	4004305	
Round No.			16	LF1	LF2	17	18	19	20	21	22	23	24	25	26	27	28	
Volatiles																		
Acetone	700	N/A	ND	NS	NS	3.31	ND	ND	ND	ND	ND	ND	4.19	ND	ND	ND	ND	
Benzene	1	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	NS	NS	2.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	NS	NS	ND	ND	ND	ND	ND	1.94	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽²⁾	70	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs																		
Metals																		
Aluminum	200	121000	NS	72.1	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	398	283	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	ND	1.81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	52400	26700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	0.574	1.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	4.72	8.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	5890	14300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	ND	ND	ND	1.02	ND	ND	ND	ND	ND	2.47	ND	ND	ND	0.831	ND	
Magnesium	NLE	62700	NS	5490	3370	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	113	125	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	0.13	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	6630	4380	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	98300	27300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	ND	2.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	ND	27.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

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Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

			Well ID	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3
Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	2446.07 04/11/97	2940.06 08/28/97	3188.07 12/02/97	3381.05 03/04/98	3605.05 06/01/98	3916.02 09/25/98	4144.06 12/16/98	4296.05 02/24/99	4524.05 05/29/99	4635.05 07/21/99	4872.03 10/21/99	5167.06 02/14/00	5417.03 05/15/00	5647.06 08/22/00	5825.06 11/01/00	
Round No.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Volatiles																		
Acetone	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	N/A	ND	ND	4.31	19	4.68	5.96	15.45	1.03	1.7	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	1.04	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽³⁾	70	N/A	ND	62	188	102	81.82	27.27	20.54	3.3	26.34	8.98	13.08	3.78	9.35	5.36	20.24	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	940	ND	ND	27.52	ND	19.38	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	ND	ND	8.6	ND	3.62	3.67	ND	1.29	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	ND	1.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	1.92	1.67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	3.9	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	4.5	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs			NS NS ND ND NS NS NS NS NS NS NS NS NS NS NS NS NS NS															
Metals																		
Aluminum	200	121000	NS	NS	341	1832	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	NS	212.1	356.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	NS	27450	39820	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	NS	1.5	3.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	NS	79	22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	NS	5342	13860	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	2.5	ND	10	ND	ND	ND	ND	1	ND	ND	1.3	1.22	ND	ND	ND	
Magnesium	NLE	62700	NS	NS	2910	4560	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	NS	56.6	144.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	NS	0.4	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	NS	2	1.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	NS	5440	6460	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	NS	26920	39610	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	NS	ND	2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	NS	81	30	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

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Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3	2567-MW3
			712	1616802	1621104	1610706	1635606	1657306	2011206	2033106	2058506	2076206	3008306	3028306	3039706	3063406	4004306
			02/09/01	5/31/2001	6/25/2001	05/08/01	08/15/01	11/09/01	02/26/02	05/28/02	08/20/02	10/28/02	02/26/03	06/11/03	07/22/03	10/07/03	01/16/04
Round No.			16	LF1	LF2	17	18	19	20	21	22	23	24	25	26	27	28
Volatiles																	
Acetone	700	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	2.97	ND	ND	ND	ND
Benzene	1	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	N/A	ND	ND	ND	ND	31.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE ⁽³⁾	70	N/A	1.96	NS	NS	11.95	17.8	5.51	4.14	3.13	ND	2.37	3.64	ND	6.82	4.56	ND
Di-isopropyl ether ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	NS	NS	ND	67.42	ND	31.59	ND	ND	ND	ND	ND	ND	13.51	ND
Toluene	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes ⁽³⁾	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.38	ND
Semi-Volatiles																	
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides/PCBs			NS NS NS NS NS NS NS NS NS NS NS NS NS NS NS NS NS NS														
Metals																	
Aluminum	200	121000	NS	195	22.1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	2000	699	NS	298	275	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	20	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	4	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	NLE	45400	NS	32200	33100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	100	N/A	NS	2.97	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NLE	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	1000	65.6	NS	6.27	9.93	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	431000	NS	12400	4670	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	10	N/A	ND	1.92	ND	0.96	ND	ND	ND	ND	ND	ND	ND	0.983	ND	ND	ND
Magnesium	NLE	62700	NS	3490	4030	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	50	331	NS	137	74.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	2	N/A	NS	0.11	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	187	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	NLE	137000	NS	4660	5470	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	50000	21500	NS	30700	61100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NLE	N/A	NS	2.46	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	5000	233	NS	22.7	16.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
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Exceedences of NJDEP GWQS are shaded and **bold**

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⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4
			2446.03	2940.05	3188.04	3381.06	3605.07	3912.03	4144.05	4296.06	4524.06	4635.06	4872.04	5167.07	5417.08	5647.07	5825.07	
Round No.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Volatiles																		
Acetone	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.57	ND
Benzene	1	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE ⁽²⁾	70	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes ⁽³⁾	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	ND	1.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Di-n-butylphthalate	900	N/A	NS	NS	1.37	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyridine ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides/PCBs			NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Metals																		
Aluminum	200	121000	NS	NS	1208	608	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	2000	699	NS	NS	156	103.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	20	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	4	N/A	NS	NS	ND	2.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	NLE	45400	NS	NS	19850	14720	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	100	N/A	NS	NS	9	1.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NLE	N/A	NS	NS	1.7	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	1000	65.6	NS	NS	14	11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	431000	NS	NS	3586	4212	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	10	N/A	2.3	ND	9	ND	ND	ND	ND	ND	ND	ND	1.2	1.4	ND	ND	ND	ND
Magnesium	NLE	62700	NS	NS	2320	1700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	50	331	NS	NS	90	78.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	2	N/A	NS	NS	0.3	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	187	NS	NS	4.8	10.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	NLE	137000	NS	NS	2810	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	50000	21500	NS	NS	15600	12580	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NLE	N/A	NS	NS	3	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	5000	233	NS	NS	57	79	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

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Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

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⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4	2567-MW4
			713	1615403	1621103	1610707	1635607	1657307	2011207	2033107	2058507	2076207	3008307	3028307	3039707	3063407	4004307	
Round No.			16	LF1	LF2	17	18	19	20	21	22	23	24	25	26	27	28	
Volatiles																		
Acetone	700	N/A	ND	NS	NS	4.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	ND	ND	2.88	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽³⁾	70	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs																		
Metals																		
Aluminum	200	121000	NS	20.2	602	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	233	196	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	ND	1.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	27100	20900	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	0.729	1.79	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	0.757	1.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	ND	29.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	6510	4160	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	ND	ND	6.18	ND	2.2	ND	ND	ND	ND	ND	ND	2.26	1.22	ND	ND	
Magnesium	NLE	62700	NS	3090	3240	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	160	118	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	ND	0.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	2.68	8.27	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	3300	2980	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	22800	19300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	1.47	1.73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	18.6	30.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

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Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

			Well ID	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5
Lab Sample ID	NJDEP	Site Specific	2446.04	2940.03	3188.05	3381.08	3605.06	3916.03	4144.07	4296.07	4535.01	4635.07	4872.05	5167.08	5417.05	5647.08	5825.08	
Sample Date	Criteria	MBC ⁽¹⁾	04/11/97	08/28/97	12/02/97	03/04/98	06/01/98	09/25/98	12/16/98	02/24/99	06/08/99	07/21/99	10/21/99	02/14/00	05/15/00	08/22/00	11/01/00	
Round No.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Volatiles																		
Acetone	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽²⁾	70	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																		
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	1.3	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs			NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Metals																		
Aluminum	200	121000	NS	NS	406	362.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	NS	93.1	58.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	NS	1.3	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	NS	21120	12180	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	NS	5.5	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	NS	14	13.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	NS	19180	16370	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	2.7	ND	7	ND	ND	ND	ND	1	ND	ND	4.4	1.21	ND	1.6	2.4	
Magnesium	NLE	62700	NS	NS	3410	1961	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	NS	100.2	56.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	NS	0.4	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	NS	6.5	3.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	NS	3530	2675	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	NS	10480	9134	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	NS	5	6.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	NS	91	43.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

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Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Well ID	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5	2567-MW5
			714	1615402	1621404	1610708	1635608	1657308	2011208	2033108	2058508	2076208	3008308	3028308	3039708	3063408	4004308
Round No.			16	LF1	LF2	17	18	19	20	21	22	23	24	25	26	27	28
Volatiles																	
Acetone	700	N/A	ND	NS	NS	4.35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	300	N/A	ND	ND	ND	2.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	2	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE ⁽³⁾	70	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropyl ether ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes ⁽³⁾	1000	N/A	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semi-Volatiles																	
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Pesticides/PCBs																	
Metals																	
Aluminum	200	121000	NS	893	557	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Barium	2000	699	NS	86.8	68.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Beryllium	20	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cadmium	4	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Calcium	NLE	45400	NS	21000	18000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Chromium	100	N/A	NS	5.32	5.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Cobalt	NLE	N/A	NS	1.96	0.803	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Copper	1000	65.6	NS	6.17	12.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Iron	300	431000	NS	8850	3910	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lead	10	N/A	ND	8.47	3.21	4.53	8.4	9.7	6.5	3.6	32.3	49.5	3.57	43.9	22.1	22.1	ND
Magnesium	NLE	62700	NS	2910	2440	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Manganese	50	331	NS	86.1	46.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Mercury	2	N/A	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nickel	100	187	NS	4.22	4.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Potassium	NLE	137000	NS	3610	3470	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Sodium	50000	21500	NS	19200	17300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vanadium	NLE	N/A	NS	8.23	4.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	5000	233	NS	57.5	36.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

Exceedences of NJDEP GWQS are shaded and **bold**

*Sampling results that exceeded calibration limits were not run again with dilution due to a laboratory error.

ND: Analyte not detected in sample

N/A: Not Applicable NS: Not Sampled

D: Diluted Sample

NLE: No cleanup standard exists for this analyte

⁽¹⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

			Well ID	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6	2567-MW6
Lab Sample ID	NJDEP	Site Specific	5647.09	5825.09	715	1616805	1621403	1610709	1635609	1657309	2011209	2033109	2058509	2076209	3008309	3028309	3039709	3063409	4004309	
Sample Date	Criteria	MBC ⁽¹⁾	08/22/00	11/01/00	02/09/01	6/5/2001	6/26/2001	05/08/01	08/15/01	11/09/01	02/26/02	05/28/02	08/20/02	10/28/02	02/26/03	06/11/03	07/22/03	10/07/03	01/16/04	
Round No.			14	15	16	LF1	LF2	17	18	19	20	21	22	23	24	25	26	27	28	
Volatiles																				
Acetone	700	N/A	4.02	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽³⁾	70	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																				
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs			NS																	
Metals																				
Aluminum	200	121000	NS	NS	NS	381	320	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	NS	NS	94.3	79.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	NS	NS	0.887	1.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	NS	NS	ND	1.25	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	NS	NS	11900	8170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	NS	NS	3.11	2.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	NS	NS	2.09	5.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	NS	NS	2.53	19.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	NS	NS	6000	3920	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	ND	ND	ND	ND	ND	1.48	ND	ND	ND	ND	1.32	ND	ND	ND	ND	ND	ND	
Magnesium	NLE	62700	NS	NS	NS	1700	1360	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	NS	NS	44.2	29.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	NS	NS	5.77	10.6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	NS	NS	2510	1930	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	NS	NS	18100	15000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	NS	NS	1.74	0.871	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	NS	NS	61.8	101	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
Groundwater Quality Criteria (GWQC) per NJAC 7-9-6

Exceedences of NJDEP GWQS are shaded and**bold**

*Sampling results that exceeded calibration limits were not run again with dilution due to a laboratory error.

ND: Analyte not detected in sample

N/A: Not Applicable NS: Not Sampled

D: Diluted Sample

NLE: No cleanup standard exists for this analyte

⁽¹⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-1
Groundwater Monitoring Well Sampling Results
Site 2567
Fort Monmouth, New Jersey

			Well ID	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7	2567-MW7
Lab Sample ID	NJDEP	Site Specific	5647.1	5825.1	716	1616804	1621402	1610710	1635610	1657310	2011210	2033110	2058510	2076210	3008310	3028310	3039710	3063410	4004310	
Sample Date	Criteria	MBC ⁽¹⁾	08/22/00	11/01/00	02/09/01	6/5/2001	6/26/2001	05/08/01	08/15/01	11/09/01	02/26/02	05/28/02	08/20/02	10/28/02	02/26/03	06/11/03	07/22/03	10/07/03	01/16/04	
Round No.			14	15	16	LF1	LF2	17	18	19	20	21	22	23	24	25	26	27	28	
Volatiles																				
Acetone	700	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Benzene	1	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone	300	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon Disulfide	NLE	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	700	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	2	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
MTBE ⁽³⁾	70	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Di-isopropyl ether ⁽³⁾	100	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tert-Butyl Alcohol (TBA) ⁽³⁾	100	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	1000	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Xylenes ⁽³⁾	1000	N/A	ND	ND	ND	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Semi-Volatiles																				
bis(2-Ethylhexyl)phthalate	30	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Naphthalene ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Di-n-butylphthalate	900	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pyridine ⁽³⁾	100	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Pesticides/PCBs			NS																	
Metals																				
Aluminum	200	121000	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Barium	2000	699	NS	NS	NS	220	255	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Beryllium	20	N/A	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cadmium	4	N/A	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Calcium	NLE	45400	NS	NS	NS	25500	30100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chromium	100	N/A	NS	NS	NS	0.852	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Cobalt	NLE	N/A	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Copper	1000	65.6	NS	NS	NS	2.78	10.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Iron	300	431000	NS	NS	NS	5250	6520	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Lead	10	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.855	ND	ND	ND	
Magnesium	NLE	62700	NS	NS	NS	2950	4380	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Manganese	50	331	NS	NS	NS	113	157	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Mercury	2	N/A	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Nickel	100	187	NS	NS	NS	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Potassium	NLE	137000	NS	NS	NS	4260	4970	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Sodium	50000	21500	NS	NS	NS	33300	30800	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vanadium	NLE	N/A	NS	NS	NS	0.75	0.602	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Zinc	5000	233	NS	NS	NS	13.9	9.11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) &
Groundwater Quality Criteria (GWQC) per NJAC 7-9-6

Exceedences of NJDEP GWQS are shaded and**bold**

*Sampling results that exceeded calibration limits were not run again with dilution due to a laboratory error.

ND: Analyte not detected in sample

N/A: Not Applicable NS: Not Sampled

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NLE: No cleanup standard exists for this analyte

⁽¹⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽²⁾Low Flow Sampling Method used to collect sample

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-2
Geoprobe Groundwater Sampling Results
Site 2567
Fort Monmouth, New Jersey

Lab Sample ID Sample Date	NJDEP Criteria	Site Specific MBC ⁽¹⁾	Geoprobe ID	GW-1	GW-2	GW-3	W-1	W-2	W-3	W-4
			4008903	4008905	4008906	4031603	4031604	4031606	4031607	
			02/02/04	02/02/04	02/02/04	04/30/04	04/30/04	04/30/04	04/30/04	04/30/04
Volatiles										
MTBE ⁽²⁾	70	N/A	5.52	2.63	0.47	3.37	3.29	1.2	ND	
tert-Butyl Alcohol (TBA) ⁽²⁾	100	N/A	ND	ND	46	ND	ND	ND	ND	

Notes

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

NJDEP Criteria: Higher of Practical Quantitation Limits (PQLs) & Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

Exceedences of NJDEP GWQS are shaded and **bold**

ND: Analyte not detected in sample

N/A: Not Applicable

⁽¹⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽²⁾Interim Criteria used as NJDEP criteria

Table 5-3
Determination of Contaminants of Concern
Site 2567
Fort Monmouth, New Jersey

Analyte	NJDEP Criteria ⁽¹⁾	Site Specific Groundwater MBC ⁽²⁾	Maximum Result	No. of NJDEP Criteria Exceedences	No. of Site Maximum Background Exceedences	Comments
Volatiles						
Acetone	700	N/A	5.99	0	N/A	No exceedence of NJDEP criteria
Benzene	1	N/A	39.4	8	N/A	Not a Contaminant of Concern. Benzene has not been detected at Site 2567 since July 1999.
2-Butanone	300	N/A	31.95	0	N/A	No exceedence of NJDEP criteria
Carbon Disulfide	NLE	N/A	1.94	0	N/A	No exceedence of NJDEP criteria
Ethylbenzene	700	N/A	1.04	0	N/A	No exceedence of NJDEP criteria
Methylene Chloride	2	N/A	25	1	N/A	Not a Contaminant of Concern: only one exceedence of NJDEP Cleanup Criteria.
MTBE⁽³⁾	70	N/A	240	4	N/A	Not a Contaminant of Concern. MTBE has not been detected in wells at Site 2567 above the NJDEP Groundwater Criteria⁽¹⁾ since June 1998.
Di-isopropyl ether ⁽³⁾	100	N/A	3.66	0	N/A	No exceedence of NJDEP criteria
Tert-Butyl Alcohol (TBA)⁽³⁾	100	N/A	1488.05	24	N/A	Contaminant of Concern. exceedences primarily at well 2567-MW1. There was only one other well with an exceedence of the NJDEP criteria (2567-MW3 in August 1997).
Toluene	1000	N/A	1.3	0	N/A	No exceedence of NJDEP criteria
Xylenes ⁽³⁾	1000	N/A	72.7	0	N/A	No exceedence of NJDEP criteria
Semi-Volatiles						
bis(2-Ethylhexyl)phthalate	30	N/A	6.98	0	N/A	No exceedence of NJDEP criteria
Naphthalene ⁽³⁾	100	N/A	6.98	0	N/A	No exceedence of NJDEP criteria
Di-n-butylphthalate	900	N/A	3.9	0	N/A	No exceedence of NJDEP criteria
Pyridine ⁽³⁾	100	N/A	4.5	0	N/A	No exceedence of NJDEP criteria

Table 5-3
Determination of Contaminants of Concern
Site 2567
Fort Monmouth, New Jersey

Analyte	NJDEP Criteria ⁽¹⁾	Site Specific Groundwater MBC ⁽²⁾	Maximum Result	No. of NJDEP Criteria Exceedences	No. of Site Maximum Background Exceedences	Comments
Pesticides/PCBs: None Detected						
Metals						
Aluminum	200	121000	1832	7	0	Not a Contaminant of Concern: no exceedence of the Site Specific MBC
Barium	2000	699	796.2	0	1	No exceedence of NJDEP criteria
Beryllium	20	N/A	1.3	0	N/A	No exceedence of NJDEP criteria
Cadmium	4	N/A	2.2	0	N/A	No exceedence of NJDEP criteria
Calcium	NLE	45400	67840	N/A	3	No NJDEP Groundwater Criteria
Chromium	100	N/A	9	0	N/A	No exceedence of NJDEP criteria
Cobalt	NLE	N/A	2.5	N/A	N/A	No NJDEP Groundwater Criteria
Copper	1000	65.6	79	0	1	No exceedence of NJDEP criteria
Iron	300	431000	19180	10	0	Not a Contaminant of Concern: no exceedence of the Site Specific MBC
Lead	10	N/A	49.5	7	N/A	Not a Contaminant of Concern: only seven exceedences of NJDEP criteria at two monitoring wells.
Magnesium	NLE	62700	7520	N/A	0	No NJDEP Groundwater Criteria
Manganese	50	331	271.8	10	0	Not a Contaminant of Concern: no exceedence of the Site Specific MBC.
Mercury	2	N/A	0.4	0	N/A	No exceedence of NJDEP criteria
Nickel	100	187	10.8	0	0	No exceedence of NJDEP criteria
Potassium	NLE	137000	8730	N/A	0	No NJDEP Groundwater Criteria
Sodium	50000	21500	76190	2	6	Not a Contaminant of Concern due to the proximity of the site to sea water.
Vanadium	NLE	N/A	6.8	N/A	N/A	No NJDEP Groundwater Criteria
Zinc	5000	233	93	0	0	No exceedence of NJDEP criteria

Notes:

All concentrations in micrograms per liter (ug/L), equivalent to parts per billion (ppb).

NJDEP GWQC: New Jersey Department of Environmental Protection Groundwater Quality Criteria.

N/A = Not Applicable

Exceeds NJDEP GWQC =

ND: Analyte not detected in sample

NLE: No limit established for this analyte

⁽¹⁾Higher of Practical Quantitation Limits (PQLs) and Groundwater Quality Criteria (GWQC) per NJAC 7:9-6

⁽²⁾Fort Monmouth Site-specific Groundwater Maximum Background Concentrations (MBCs), background (native) metals only (Weston SI Report Dated 1995)

⁽³⁾Interim Criteria used as NJDEP criteria

Table 5-4
Aquifer Dissolved Oxygen
Site 2567
Fort Monmouth, New Jersey

2567-MW1		2567-MW2		2567-MW3		2567-MW4		2567-MW5	
Sample Date	DO (mg/L)	Sample Date	DO (mg/L)	Sample Date	DO (mg/L)	Sample Date	DO (mg/L)	Sample Date	DO (mg/L)
04/11/97	3.00	04/11/97	2.50	04/11/97	2.50	04/11/97	2.40	04/11/97	2.20
08/28/97	2.40	08/28/97	2.40	08/28/97	2.20	08/28/97	2.50	08/28/97	3.40
12/02/97	1.40	12/02/97	1.90	12/02/97	1.00	12/02/97	1.50	12/02/97	1.80
03/04/98	4.10	03/04/98	5.40	03/04/98	3.50	03/04/98	3.50	03/04/98	2.60
06/01/98	2.10	06/01/98	2.30	06/01/98	2.20	06/01/98	1.70	06/01/98	1.10
09/24/98	5.18	09/24/98	5.92	09/25/98	6.90	09/24/98	6.76	09/25/98	7.27
12/16/98	7.87	12/16/98	6.72	12/16/98	7.33	12/16/98	7.63	12/16/98	8.04
02/24/99	3.85	02/24/99	3.27	02/24/99	3.37	02/24/99	3.64	02/24/99	3.68
05/29/99	4.77	05/29/99	5.70	05/29/99	2.95	05/29/99	4.27	06/08/99	4.80
07/21/99	3.07	07/21/99	2.77	07/21/99	3.31	07/21/99	3.74	07/21/99	4.18
10/21/99	4.33	10/21/99	4.37	10/21/99	4.41	10/21/99	4.57	10/21/99	4.17
02/14/00	5.17	02/14/00	5.16	02/14/00	4.71	02/14/00	5.20	02/14/00	5.19
05/15/00	4.23	05/15/00	4.81	05/15/00	4.57	05/15/00	5.34	05/15/00	5.36
08/22/00	3.17	08/22/00	3.07	08/22/00	3.04	08/22/00	3.11	08/22/00	3.24
11/01/00	3.87	11/01/00	3.21	11/01/00	3.37	11/01/00	3.71	11/01/00	3.76
02/09/01	5.22	02/09/01	5.07	02/09/01	5.07	02/09/01	5.20	02/09/01	5.31
05/08/01	5.17	05/08/01	5.14	05/08/01	5.05	05/08/01	5.20	05/08/01	5.18
08/15/01	0.01	08/15/01	0.05	08/15/01	0.00	08/15/01	0.13	08/15/01	0.17
11/09/01	1.40	11/09/01	0.73	11/09/01	0.41	11/09/01	1.16	11/09/01	0.87
02/26/02	1.60	02/26/02	0.98	02/26/02	1.11	02/26/02	1.08	02/26/02	0.97
05/28/02	2.10	05/28/02	1.97	05/28/02	1.97	05/28/02	2.11	05/28/02	1.66
08/20/02	2.71	08/20/02	2.47	8/20/2002	2.91	08/20/02	2.31	08/20/02	2.32
10/28/02	0.00	10/28/02	0.29	10/28/02	0.08	10/28/02	0.63	10/28/02	5.10
02/26/03	1.03	02/26/03	2.17	02/26/03	2.69	02/26/03	2.99	02/26/03	2.50
06/11/03	1.84	06/11/03	2.11	06/11/03	2.52	06/11/03	2.32	06/11/03	2.30
07/22/03	0.40	07/22/03	0.43	07/22/03	0.40	07/22/03	0.52	07/22/03	1.38
10/07/03	1.74	10/07/03	1.11	10/07/03	1.96	10/07/03	2.01	10/07/03	2.03
01/16/04	2.61	01/16/04	2.21	01/16/04	2.08	01/16/04	2.17	01/16/04	2.17
Min:	0.00	Min:	0.05	Min:	0.00	Min:	0.13	Min:	0.17
Max:	7.87	Max:	6.72	Max:	7.33	Max:	7.63	Max:	8.04
Average:	3.01	Average:	3.01	Average:	2.91	Average:	3.12	Average:	3.31

Table 5-4
Aquifer Dissolved Oxygen
Site 2567
Fort Monmouth, New Jersey

2567-MW6		2567-MW7	
Sample Date	DO (mg/L)	Sample Date	DO (mg/L)
08/22/00	3.27	08/22/00	3.31
11/01/00	3.81	11/01/00	3.87
02/09/01	5.27	02/09/01	NA
05/08/01	5.23	05/08/01	5.22
08/15/01	0.30	08/15/01	0.05
11/09/01	0.89	11/09/01	0.42
02/26/02	1.17	02/26/02	1.04
05/28/02	1.07	05/28/02	1.02
08/20/02	2.04	08/20/02	1.98
10/28/02	1.17	10/28/02	0.39
02/26/03	1.71	02/26/03	1.38
06/11/03	2.01	06/11/03	2.30
07/22/03	0.91	07/22/03	0.57
10/07/03	2.10	10/07/03	2.17
01/16/04	2.09	01/16/04	2.23
Min:	0.30	Min:	0.05
Max:	5.27	Max:	5.22
Average:	2.20	Average:	1.85

Notes:

- 1.) DO: Dissolved Oxygen
- 2.) NA: Not Available

Table 6-1
tert-Butyl Alcohol Biodegradation at Monitoring Well 2567-MW1
Site 2567 - Charles Woods Area
Fort Monmouth, New Jersey

Duration of tert-Butyl Alcohol Degradation Based on Published Biodegradation Rate		
Input		
Parameters	Units	Constituent: tert-Butyl Alcohol (TBA)
Δt	days	90
T _{1/2}	days	365
k ⁽¹⁾	days ⁻¹	0.00190
Initial Concentration, C ₀ ⁽²⁾	μg/L	1488.05
February 9, 2001		
Calculation and Results		
Time (days)	Date	Predicted Concentrations, C (ug/L)
0	February 9, 2001	1488.05
90	May 10, 2001	1254.27
180	August 8, 2001	1057.22
270	November 6, 2001	891.12
360	February 4, 2002	751.12
450	May 5, 2002	633.12
540	August 3, 2002	533.65
630	November 1, 2002	449.81
720	January 30, 2003	379.14
810	April 30, 2003	319.58
900	July 29, 2003	269.37
990	October 27, 2003	227.05
1080	January 25, 2004	191.38
1170	April 24, 2004	161.31
1260	July 23, 2004	135.97
1350	October 21, 2004	114.61
1440	January 19, 2005	96.60
Time until NJDEP criteria is reached:		
1,440	January 19, 2005	96.60
New Jersey Criteria	μg/L	100
Notes:		
NJ Criteria = Interim Groundwater Quality Criteria		
Constituent Predicted Concentration: C _p (t) = C _p (t-1) * e ^{-kΔt}		
Time to reach NJ Criteria = TNJC		
Reaction Rate Constant = k = -ln(0.5)/t _{1/2}		
Length of Impacted Area Based on Available Published Biodegradation Rates		
Input Data		
Hydraulic Conductivity ⁽³⁾ (K)	ft/day	25.9
Hydraulic Gradient ⁽⁴⁾ (i):	ft/ft	0.02
Effective Porosity ⁽⁵⁾ (n _e):	---	0.4
Bulk Density of Formation ⁽⁵⁾ (ρ _b)	kg/L	1.59
n-Octanol/Carbon Partition ⁽⁶⁾ (K _{oc}):	L/kg	2.27
Fraction of Organic Carbon ⁽⁷⁾ (f _{oc})	---	0.003
Sorption Coefficient (K _d)	L/kg	0.007
Calculation and Results		
Seepage Velocity (ft/day)	vs = K*i/ne =	1.295
Retardation Factor	Rd = 1 + (Kd * ρ _b / ne) =	1.03
Pollutant Transport Rate (ft/day)	vpt = vs/Rd =	1.261
or (ft/year)		460.22
TNJC (days)	Determined above	1,440
TNJC (years)		3.9
Length (ft)	vpt * TNJC =	1,800
Notes:		
(1) Half-Life for aerobic biodegradation in groundwater, upper limit: Howard, P.H. et. al. 1991. <i>Handbook of Environmental Degradation Rates</i> . Lewis Publishers.		
(2) Initial concentration (Co) is the most recent concentration that was detected during the groundwater monitoring program.		
(3) Hydraulic conductivity of surficial fill, K = 25.9 ft/day (Geometric mean of slug tests performed by Versar in August 2001)		
(4) Hydraulic gradient (i) derived from ground water elevation contours (August 2000)		
(5) Effective porosity, n = 0.4, and bulk density, ρ _b = 1.5 g/mL (consistent with the type of soil - clayey sands, at the Site).		
(6) K _{oc} data reference: USEPA Soil Screening Guidance 1996.		
(7) f _{oc} = 0.003 (the geometric mean of the minimum and maximum range of f _{oc}). <i>USEPA 1996</i> .		

**Table 6-2
Well Search Summary
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey**

NJDEP Permit Number	Depth (feet)	Use*	Permit Date	Latitude	Longitude
2900151	300	D	7/13/1951	401746	740546
2901121	70	D	6/2/1954	401706	740519
2901154	70	D	6/17/1954	401800	740546
2903374	50	D	8/15/1960	401733	740546
2903863	90	D	6/29/1962	401733	740546
2905076	100	D	5/20/1966	401733	740546
2907536	150	D	6/14/1974	401813	740533
2908442	60	D	8/3/1976	401826	740426
2911733	150	D	12/4/1981	401813	740533
2912070	40	G	5/14/1982	401720	740346
2912719	40	G	4/8/1983	401726	740406
2913187	80	G	9/12/1983	401819	740446
2913524	20	M	3/21/1984	401712	740406
2913525	20	M	3/21/1984	401712	740406
2913526	20	M	3/21/1984	401712	740406
2913527	20	M	3/21/1984	401712	740406
2913528	20	M	3/21/1984	401712	740406
2913529	20	M	3/21/1984	401712	740406
2913551	20	M	3/21/1984	401712	740406
2913552	20	M	3/21/1984	401712	740406
2913581	50	E	7/20/1984	401712	740406
2914431	20	G	1/15/1985	401819	740446
2916207	220	D	2/17/1986	401726	740406
2916766	20	M	6/30/1986	401659	740432
2916767	20	M	6/30/1986	401659	740432
2916768	20	M	6/30/1986	401659	740432
2916769	20	M	6/30/1986	401659	740432
2916770	20	M	6/30/1986	401659	740432
2916771	20	M	6/30/1986	401659	740432
2916772	20	M	6/30/1986	401659	740432
2916773	20	M	6/30/1986	401659	740432
2916774	20	M	6/30/1986	401659	740432
2916775	15	M	6/30/1986	401752	740552
2916776	15	M	6/30/1986	401752	740552
2916777	20	M	6/30/1986	401659	740512
2916778	20	M	6/30/1986	401659	740512
2916779	20	M	6/30/1986	401726	740406
2916780	20	M	6/30/1986	401659	740446
2916781	20	M	6/30/1986	401659	740446
2916782	20	M	6/30/1986	401659	740446
2916783	20	M	6/30/1986	401659	740446
2916784	20	M	6/30/1986	401659	740446
2916785	20	M	6/30/1986	401659	740446
2916786	15	M	6/30/1986	401712	740406
2916787	15	M	6/30/1986	401712	740406
2916788	20	M	6/30/1986	401659	740432
2916789	20	M	6/30/1986	401659	740432
2917933	13	W	2/10/1987	401739	740406
2917934	13	W	2/10/1987	401739	740406
2917935	13	W	2/10/1987	401739	740406
2917936	13	W	2/10/1987	401739	740406
2917937	13	W	2/10/1987	401739	740406
2917938	13	W	2/10/1987	401739	740406
2917939	13	W	2/10/1987	401739	740406
2917940	13	W	2/10/1987	401739	740406
2917941	13	W	2/10/1987	401739	740406
2917942	13	W	2/10/1987	401739	740406
2917943	13	W	2/10/1987	401739	740406

NJDEP Permit Number	Depth (feet)	Use*	Permit Date	Latitude	Longitude
2917944	13	W	2/10/1987	401739	740406
2917945	13	W	2/10/1987	401739	740406
2917946	13	W	2/10/1987	401739	740406
2917947	13	W	2/10/1987	401739	740406
2917948	13	W	2/10/1987	401739	740406
2917949	13	W	2/10/1987	401739	740406
2917950	13	W	2/10/1987	401739	740406
2917951	13	W	2/10/1987	401739	740406
2917952	13	W	2/10/1987	401739	740406
2918127	13	W	3/17/1987	401739	740406
2918128	13	W	3/17/1987	401739	740406
2918129	13	W	3/17/1987	401739	740406
2918130	13	W	3/17/1987	401739	740406
2918131	13	W	3/17/1987	401739	740406
2918132	13	W	3/17/1987	401739	740406
2918579	13	W	5/18/1987	401746	740413
2918580	13	W	5/18/1987	401746	740413
2918581	13	W	5/18/1987	401746	740413
2918582	13	W	5/18/1987	401746	740413
2918583	13	W	5/18/1987	401746	740413
2918584	13	W	5/18/1987	401746	740413
2918585	13	W	5/18/1987	401746	740413
2918586	13	W	5/18/1987	401746	740413
2918587	13	W	5/18/1987	401746	740413
2918588	13	W	5/18/1987	401746	740413
2918589	13	W	5/18/1987	401746	740413
2918590	13	W	5/18/1987	401746	740413
2919285	40	M	9/11/1987	401720	740413
2919286	40	M	9/11/1987	401720	740413
2919287	40	M	9/11/1987	401720	740413
2919288	40	M	9/11/1987	401720	740413
2919540	200	D	11/9/1987	401733	740453
2920979	80	G	7/20/1988	401720	740346
2921634	200	G	10/19/1988	401733	740346
2921698	190	R	11/9/1988	401813	740519
2921967	30	M	12/22/1988	401733	740533
2922685	30	M	5/1/1989	401746	740519
2922686	30	M	5/1/1989	401746	740519
2922982	35	M	6/8/1989	401653	740453
2923160	30	M	7/17/1989	401733	740533
2923339	20	B	8/23/1989	401706	740440
2923916	20	M	12/11/1989	401720	740506
2923917	20	M	12/11/1989	401720	740506
2923918	20	M	12/11/1989	401720	740506
2923919	20	M	12/11/1989	401720	740453
2923920	20	M	12/11/1989	401720	740453
2923921	20	M	12/11/1989	401720	740453
2923922	10	B	12/11/1989	401720	740506
2923923	10	B	12/11/1989	401720	740506
2923924	10	B	12/11/1989	401720	740506
2923925	10	B	12/11/1989	401720	740453
2923926	10	B	12/11/1989	401720	740453
2923927	10	B	12/11/1989	401720	740453
2923928	10	B	12/11/1989	401720	740453
2923929	10	B	12/11/1989	401720	740453
2923930	10	B	12/11/1989	401720	740453
2923931	10	B	12/11/1989	401720	740453
2923932	10	B	12/11/1989	401720	740453
2923933	10	B	12/11/1989	401720	740453

Table 6-2
Well Search Summary
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey

NJDEP Permit Number	Depth (feet)	Use*	Permit Date	Latitude	Longitude
2923934	10	B	12/11/1989	401720	740453
2923935	10	B	12/11/1989	401720	740453
2923936	10	B	12/11/1989	401720	740453
2923937	10	B	12/11/1989	401720	740453
2923938	10	B	12/11/1989	401720	740453
2923939	10	B	12/11/1989	401720	740453
2923940	10	B	12/11/1989	401720	740453
2923941	10	B	12/11/1989	401720	740453
2923942	10	B	12/11/1989	401720	740453
2923943	10	B	12/11/1989	401720	740453
2923944	10	B	12/11/1989	401720	740453
2924555	30	M	4/10/1990	401733	740533
2924890	30	B	6/12/1990	401800	740453
2924891	30	B	6/12/1990	401800	740453
2924892	30	B	6/12/1990	401800	740453
2924893	30	B	6/12/1990	401800	740453
2924894	30	B	6/12/1990	401800	740453
2924895	30	B	6/12/1990	401800	740453
2924896	30	B	6/12/1990	401800	740453
2924897	30	B	6/12/1990	401800	740453
2924898	30	B	6/12/1990	401800	740453
2924899	30	B	6/12/1990	401800	740453
2925352	3	M	10/10/1990	401733	740533
2925775	13	M	1/29/1991	401720	740506
2926312	13	M	6/6/1991	401720	740506
2926590	25	M	7/18/1991	401706	740506
2926591	25	M	7/18/1991	401706	740506
2926592	25	M	7/18/1991	401706	740506
2926724	60	D	8/8/1991	401653	740453
2927443	25	M	1/21/1992	401733	740546
2927444	25	M	1/21/1992	401733	740546
2927453	25	M	1/23/1992	401733	740546
2927643	20	Z	3/5/1992	401813	740426
2927644	20	Z	3/5/1992	401813	740426
2927645	20	Z	3/5/1992	401813	740426
2927756	20	Z	3/31/1992	401733	740453
2927757	20	Z	3/31/1992	401733	740453
2927758	20	Z	3/31/1992	401733	740453
2928781	25	M	9/22/1992	401720	740546
2928782	25	M	9/22/1992	401720	740546
2929189	78	Y	12/30/1992	401653	740453
2929421	25	M	3/23/1993	401720	740506
2929607	25	M	4/29/1993	401720	740546
2929623	25	M	5/4/1993	401720	740546
2929742	30	M	6/3/1993	401733	740519
2929743	30	M	6/3/1993	401733	740519
2929744	30	M	6/3/1993	401733	740519
2929745	30	M	6/3/1993	401733	740519
2929752	14	M	6/3/1993	401706	740519
2929753	14	M	6/3/1993	401706	740519
2929754	14	M	6/3/1993	401706	740519
2930115	45	M	8/19/1993	401800	740346
2930116	45	M	8/19/1993	401800	740346
2930117	45	M	8/19/1993	401800	740346
2930118	45	M	8/19/1993	401800	740346
2930119	45	M	8/19/1993	401800	740346
2930120	45	M	8/19/1993	401800	740346
2930480	20	M	11/18/1993	401800	740400
2930494	35	M	11/24/1993	401800	740346

NJDEP Permit Number	Depth (feet)	Use*	Permit Date	Latitude	Longitude
2930495	35	M	11/24/1993	401800	740346
2930514	20	M	12/3/1993	401720	740453
2930958	15	M	4/5/1994	401800	740506
2930959	15	M	4/5/1994	401800	740506
2930960	15	M	4/5/1994	401800	740506
2930969	15	M	4/5/1994	401746	740533
2931238	15	Z	5/11/1994	401733	740506
2931239	15	M	5/11/1994	401733	740506
2931240	15	M	5/11/1994	401733	740506
2931561	20	M	7/5/1994	401813	740413
2931562	20	M	7/5/1994	401813	740413
2931563	20	M	7/5/1994	401813	740413
2932158	60	G	9/27/1994	401813	740440
2932159	60	G	9/27/1994	401813	740440
2932160	60	G	9/27/1994	401813	740440
2932161	60	G	9/27/1994	401813	740440
2932162	60	G	9/27/1994	401813	740440
2932163	60	G	9/27/1994	401813	740440
2932590	25	M	11/29/1994	401746	740519
2932591	25	M	11/29/1994	401746	740519
2932592	25	M	11/29/1994	401746	740519
2932593	25	M	11/29/1994	401746	740519
2932594	25	M	11/29/1994	401746	740519
2932595	25	M	11/29/1994	401746	740519
2932596	25	M	11/29/1994	401746	740519
2932597	25	M	11/29/1994	401746	740519
2932598	25	M	11/29/1994	401746	740519
2932599	25	M	11/29/1994	401800	740440
2932600	25	M	11/29/1994	401800	740440
2932601	25	M	11/29/1994	401800	740440
2932602	25	M	11/29/1994	401800	740440
2932603	25	M	11/29/1994	401800	740440
2932604	25	M	11/29/1994	401800	740519
2932605	25	M	11/29/1994	401800	740519
2932894	20	M	3/1/1995	401720	740533
2932895	20	M	3/1/1995	401720	740533
2932896	20	V	3/1/1995	401720	740533
2932897	20	J	3/1/1995	401720	740533
2933763	20	M	7/19/1995	401813	740440
2934753	15	M	1/10/1996	401733	740453
2934754	15	M	1/10/1996	401733	740453
2934755	15	M	1/10/1996	401733	740453
2935236	100	G	4/23/1996	401720	740413
2935462	180	D	5/29/1996	401813	740533
2936178	180	D	10/31/1996	401813	740533
2936179	180	D	10/31/1996	401813	740533
2936202	180	D	11/7/1996	401813	740533
2936204	180	D	11/7/1996	401813	740533
2936284	180	D	11/25/1996	401813	740533
2936563	10	V	2/5/1997	401720	740533
2936564	6	V	2/5/1997	401720	740533
2936565	6	V	2/5/1997	401720	740533
2936566	6	V	2/5/1997	401720	740533
2936567	6	V	2/5/1997	401720	740533
2936568	35	V	2/5/1997	401720	740533
2936569	35	V	2/5/1997	401720	740533
2936570	35	V	2/5/1997	401720	740533
2936571	20	M	2/5/1997	401720	740533
2936653	180	D	2/28/1997	401813	740533

Table 6-2
Well Search Summary
Site 2567 - Charles Wood Area
Fort Monmouth, New Jersey

NJDEP Permit Number	Depth (feet)	Use*	Permit Date	Latitude	Longitude
2936654	180	D	2/28/1997	401813	740533
2936658	180	D	3/4/1997	401813	740533
2936753	10	M	3/31/1997	401720	740506
2936968	100	G	5/20/1997	401720	740426
2936969	100	G	5/20/1997	401720	740426
2937036	10	V	6/4/1997	401720	740533
2937037	35	V	6/4/1997	401720	740533
2937899	50	B	11/20/1997	401800	740506
2938654	180	U	5/15/1998	401826	740519
2938660	100	G	5/15/1998	401720	740426
2939028	180	I	7/30/1998	401813	740519

Notes:

Source: State of New Jersey Department of Environmental Protection - Well Permitting and Regulations Section of the Bureau of Water Allocation, Trenton, NJ.
Search date: 6 August 2001.

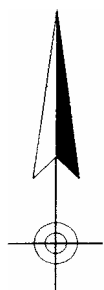
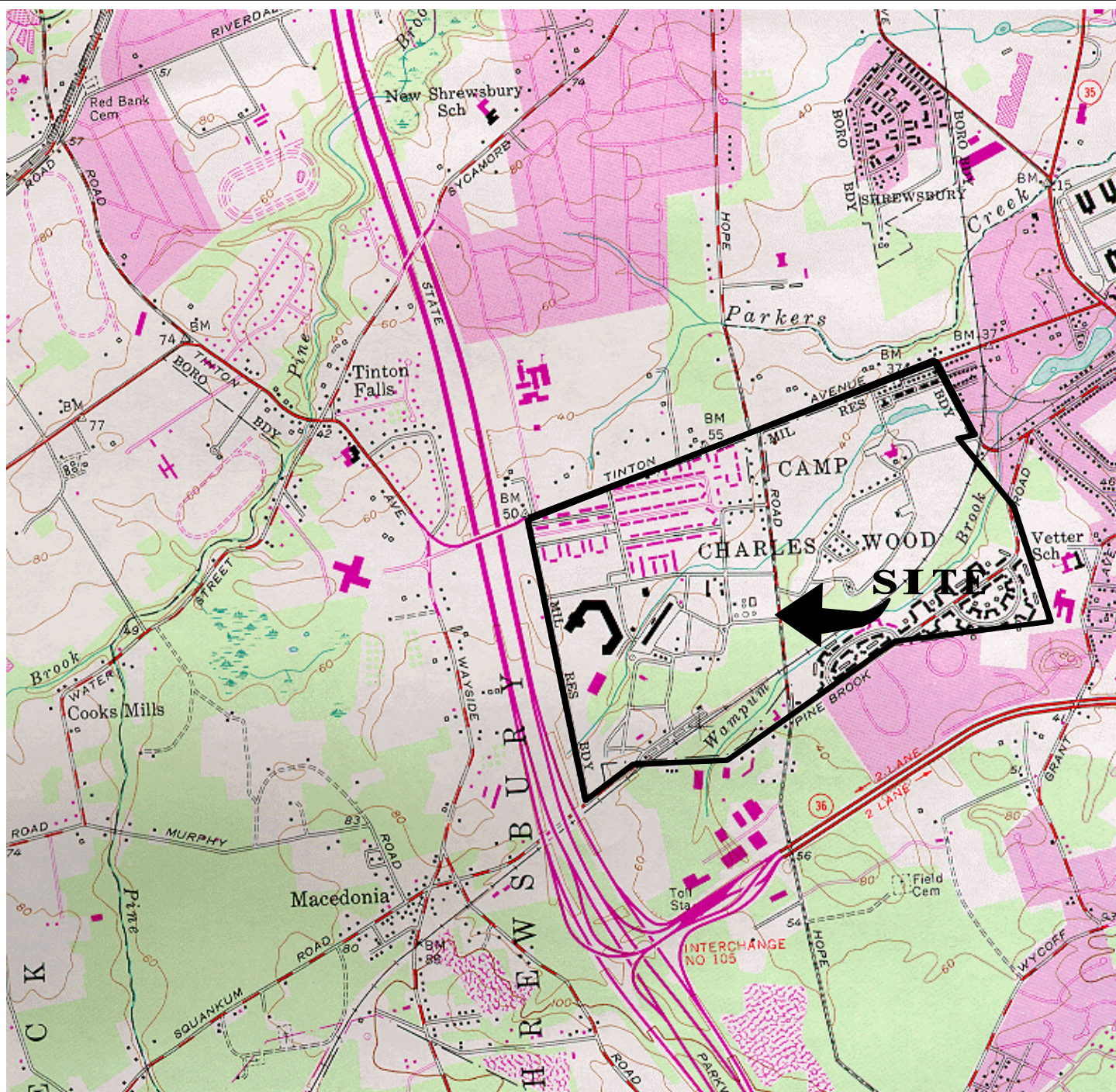
Well search was performed for a 1-mile radius surrounding the center point of Site 2567, U.S. Army Garrison Fort Monmouth, Fort Monmouth, New Jersey.

2567 Location: latitude = North 40° 17' 45",
longitude = West 74° 04' 46".

***Well Use Codes**

A - Unknown/Well Record Use Only
B - Boring
C - Commercial
D - Domestic (Potable)
E - Recovery/Decontamination Pollution Control/Leachate with Pump Capacity
F - Fire
G - Irrigation
H - Heat Pump/Geothermal (Return Well)
I - Industrial
J - Injection
K - Inclinator
L - Livestock
M - Monitoring Well (Observation)
N - Public Non Community
O - Oil/Gas Exploration
P - Public Supply
Q - Recharge
R - Replacement (Replacement Codes: 1 - Domestic, 2 - Public Community, 5 - Irrigation)
S - Closed Loop
T - Test
U - Non Public (Supply)
V - Gas Vent
W - Dewatering
X - Agricultural/Horticultural/Irrigation Wells
Y - Cathodic Protection
Z - Piezometer

FIGURES



LONG BRANCH, N. J.

40073-C8-TF-024

1954

PHOTOREVISED 1981

DMA 6164 I SE-SERIES V822



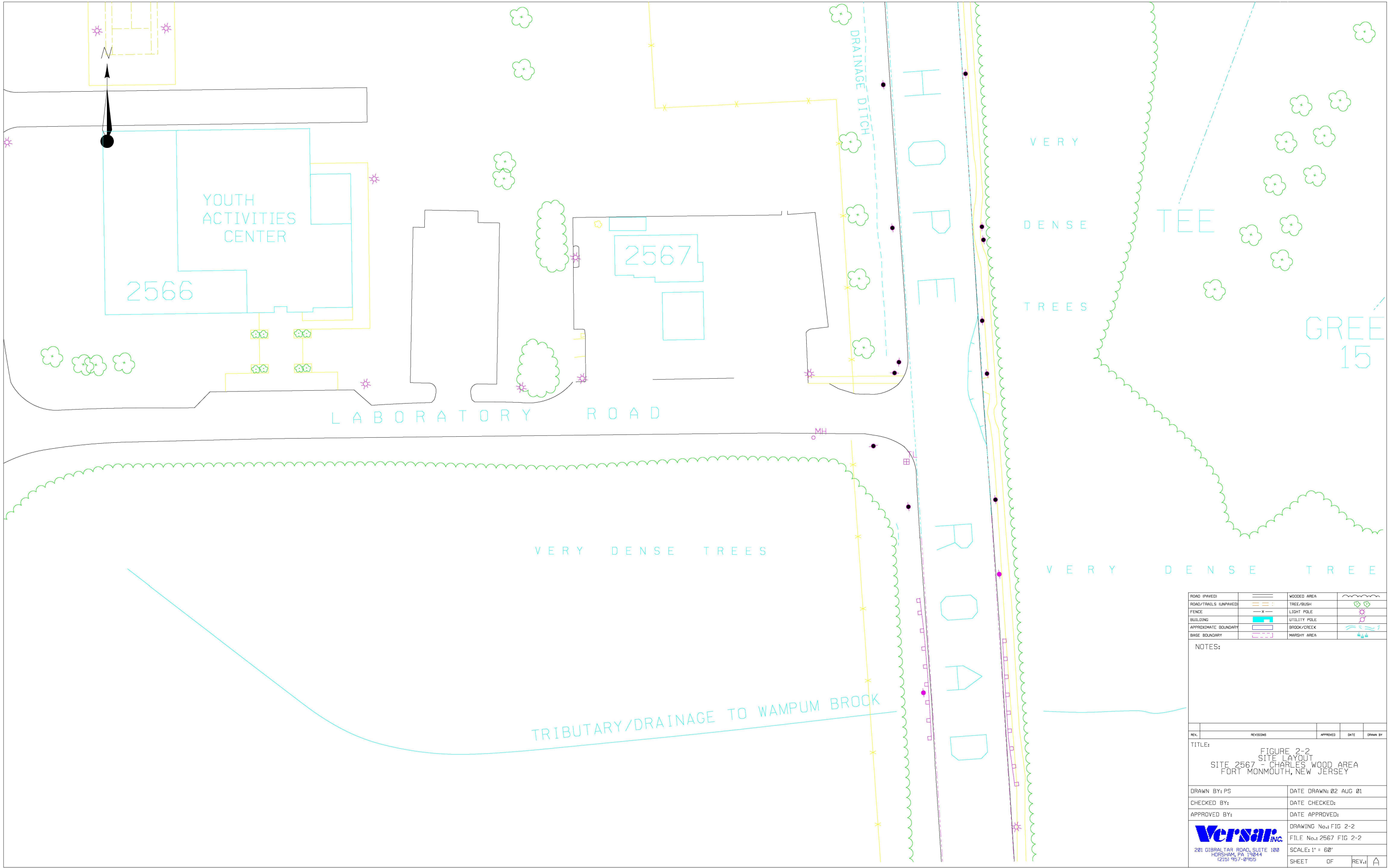
QUADRANGLE LOCATION

Mapped, edited and published by the Geological Survey

Figure 2-1
Site Location Map
Site 2567

Fort Monmouth, New Jersey

Versar INC. 201 Gibraltar Road, Suite 100
Horsham, PA 19044
(215) 957-0955

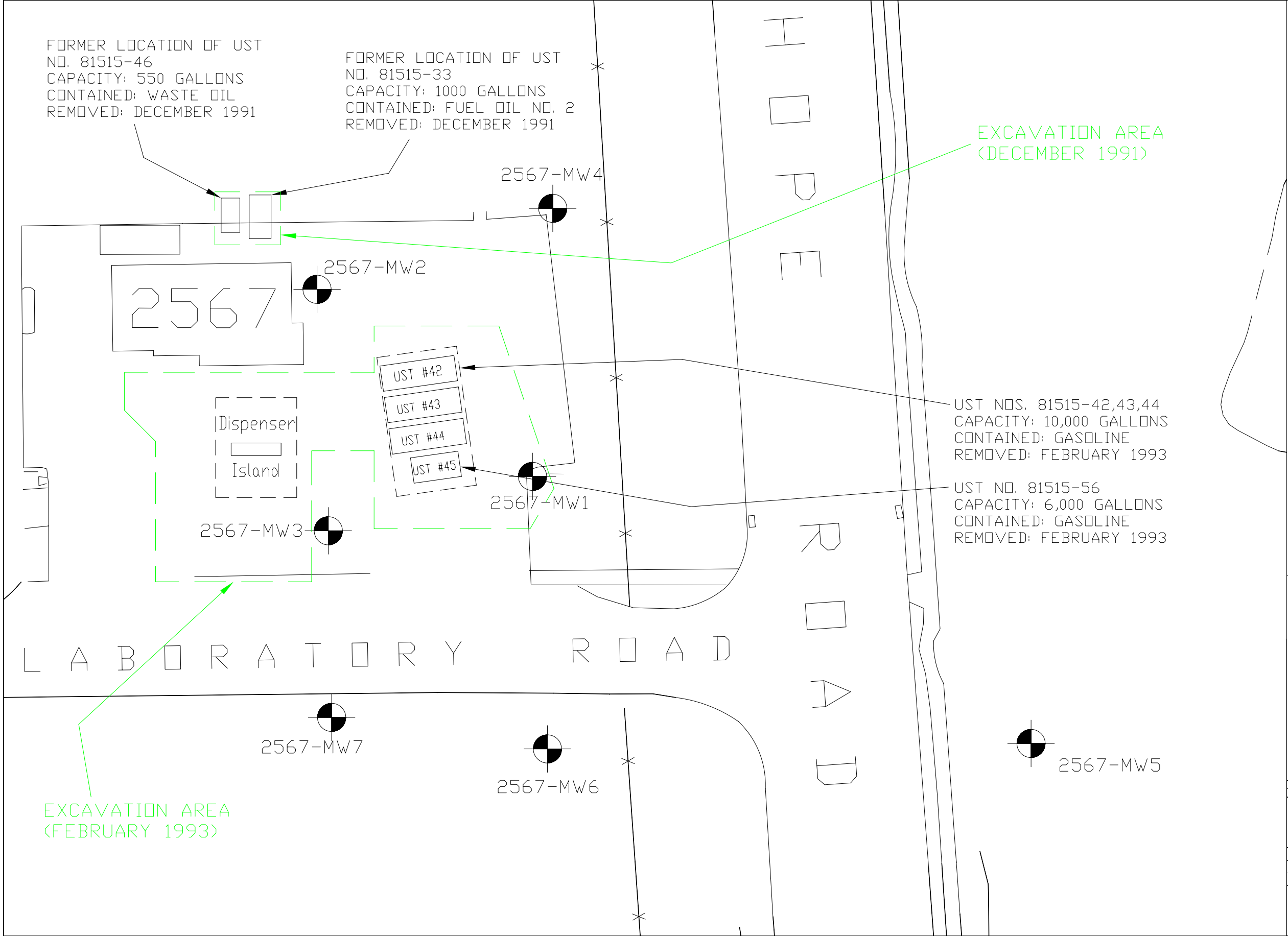


ROAD (PAVED)	WOODED AREA	
ROAD/TRAILS (UNPAVED)	TREE/BUSH	
FENCE	LIGHT POLE	
BUILDING	UTILITY POLE	
APPROXIMATE BOUNDARY	BROOK/CREEK	
BASE BOUNDARY	MARSHY AREA	

NOTES:

FIGURE 2-2
SITE LAYOUT
SITE 2567 - CHARLES WOOD AREA
FORT MONMOUTH, NEW JERSEY

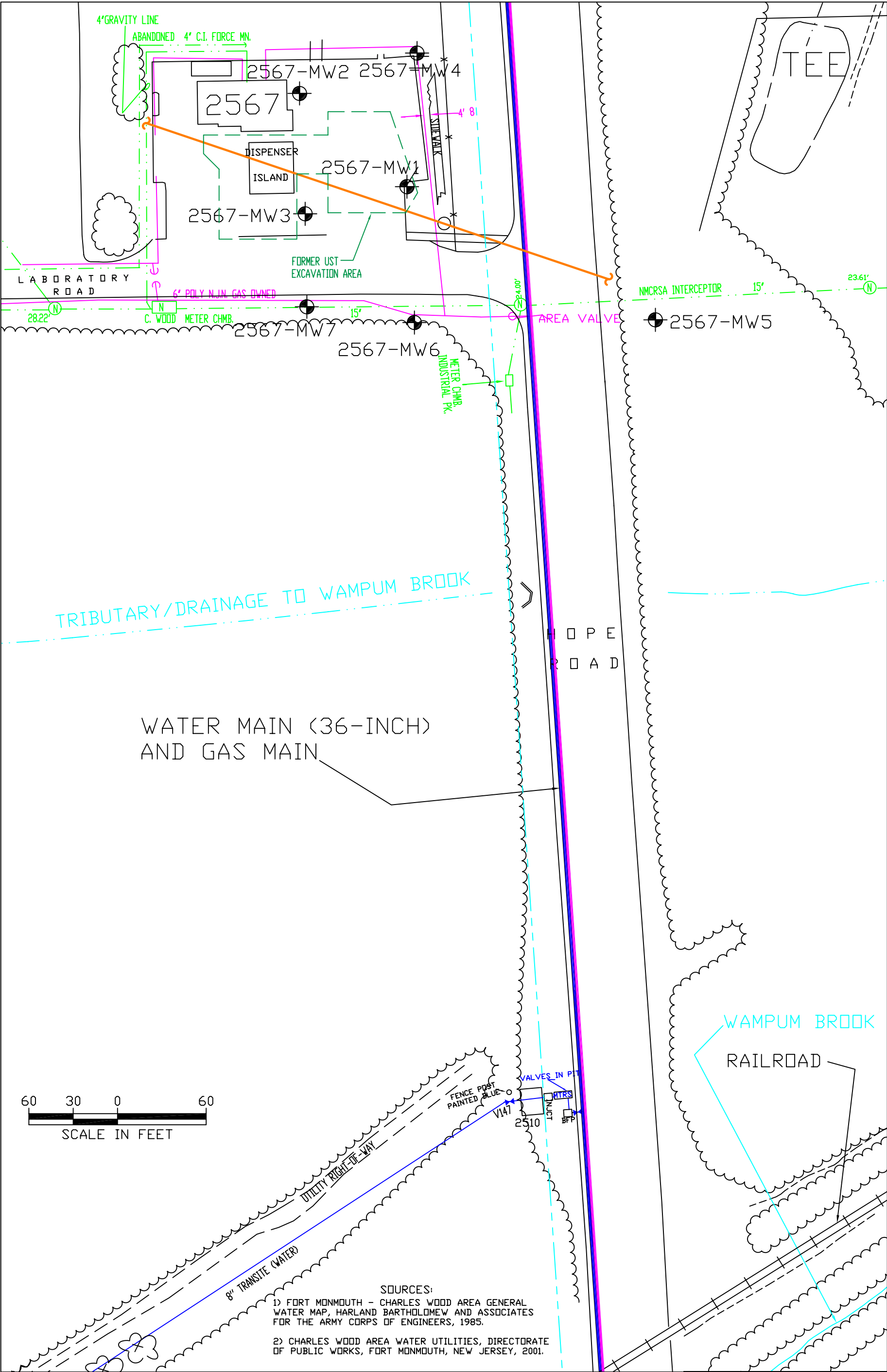
DRAWN BY: PS	DATE DRAWN: 02 AUG 01
CHECKED BY:	DATE CHECKED:
APPROVED BY:	DATE APPROVED:
Versar inc.	DRAWING No.: FIG 2-2
201 GIBRALTAR ROAD, SUITE 100 HORSBURN, PA 19044 (215) 957-0955	FILE No.: 2567 FIG 2-2
SCALE: 1" = 60'	SHEET OF REV.: A



NOTES:

- BUILDING
- ROAD/CURB
- FENCE
- MONITORING WELL (CURRENT)
- EXCAVATION AREA

REV.	REVISIONS	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 2-4 FORMER UST LOCATION MAP SITE 2567 - CHARLES WOOD AREA FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 2558 PEARL BUCK ROAD, SUITE 1 BRISTOL, PA 19007 (215) 788-7844		DRAWING No.: FIGURE 2-4		
		FILE No.: 2567 FIGURE 2-4		
		SCALE: 1" = 30'		
SHEET 1 OF 1				REV: A



60 30 0 60
SCALE IN FEET

SOURCES:
1) FORT MONMOUTH - CHARLES WOOD AREA GENERAL WATER MAP, HARLAND BARTHOLOMEW AND ASSOCIATES FOR THE ARMY CORPS OF ENGINEERS, 1985.
2) CHARLES WOOD AREA WATER UTILITIES, DIRECTORATE OF PUBLIC WORKS, FORT MONMOUTH, NEW JERSEY, 2001.

NOTES:

- BUILDING
- ROAD/CURB
- FENCE
- MONITORING WELL
- TREES/VEGETATION
- CULVERT

- SANITARY SEWER
- NMCRSA MANHOLE (S) WITH INVERT ELEVATION (FT ABOVE MEAN SEA LEVEL)
- GAS
- WATER
- ABANDONED SEWER LINE
- SWALE



REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 2-5 UNDERGROUND UTILITIES LOCATION MAP SITE 2567 - CHARLES WOOD AREA FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 11 DEC 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
Versar, Inc.		DRAWING No: FIGURE 2-5		
201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		FILE No: 2567 FIGURE 2-5		
		SCALE: 1" = 60'		
		SHEET 1 OF 1 REV: A		

Geologic Map of New Jersey

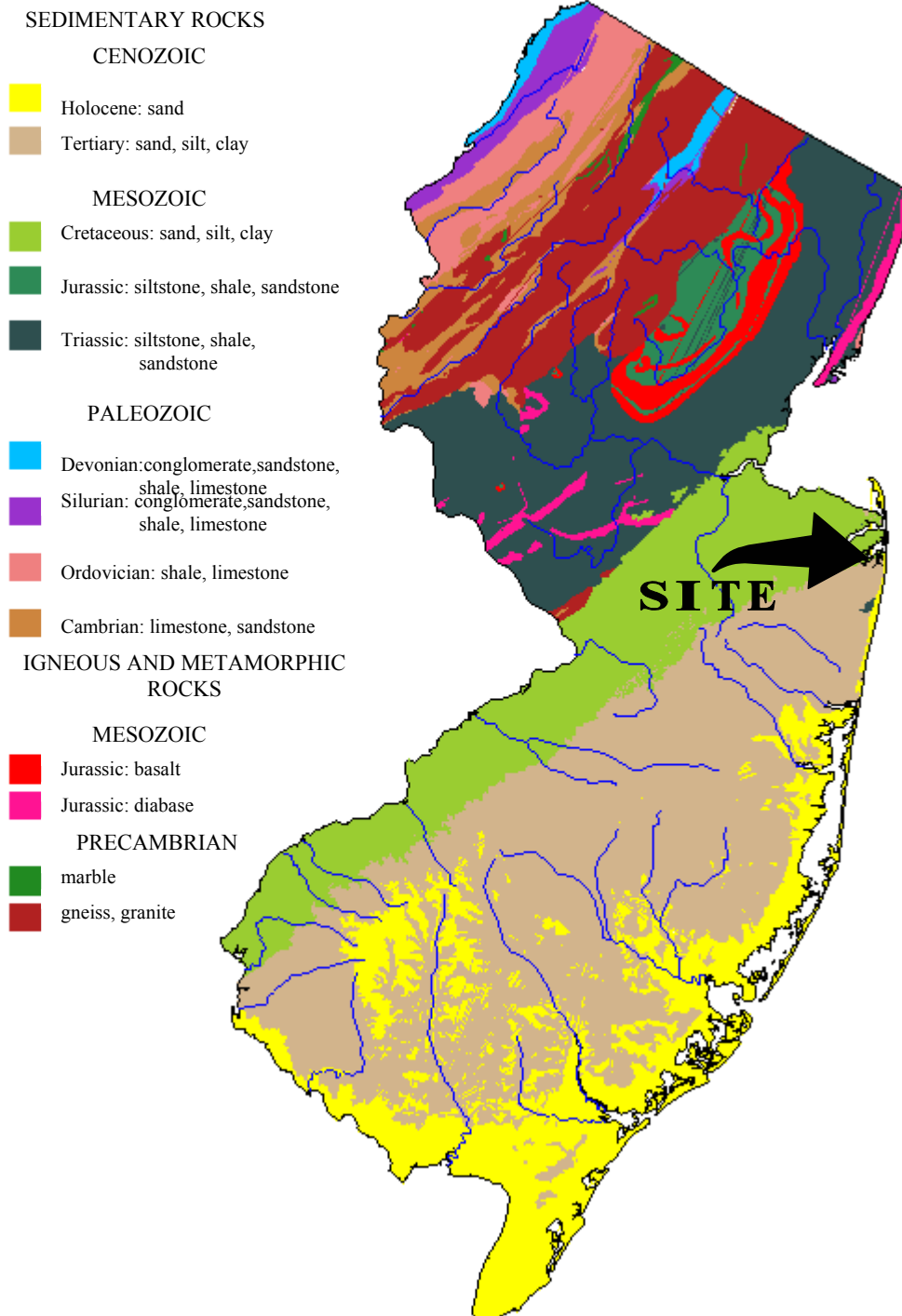


FIGURE 2-6
Geologic Map of New Jersey
Site 2567
Fort Monmouth, New Jersey

Versar INC.

2558 Pearl Buck Road, Suite 1
Bristol, Pennsylvania, 19007
(215)-788-7844

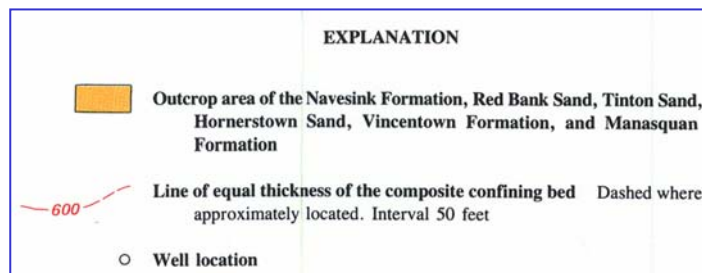
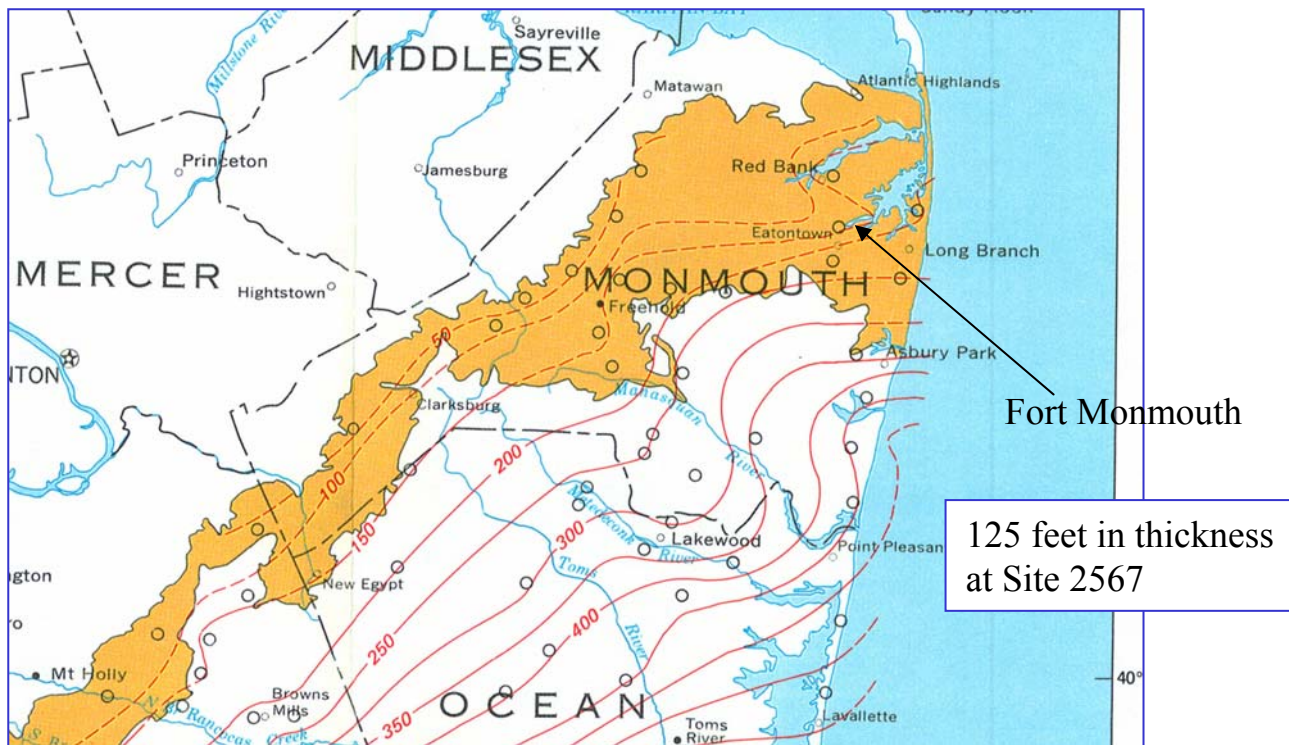


FIGURE 2-7

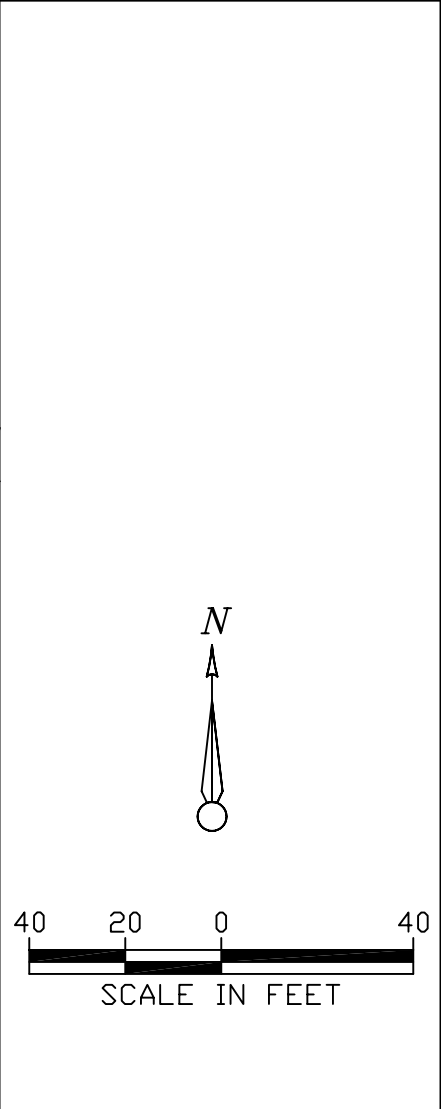
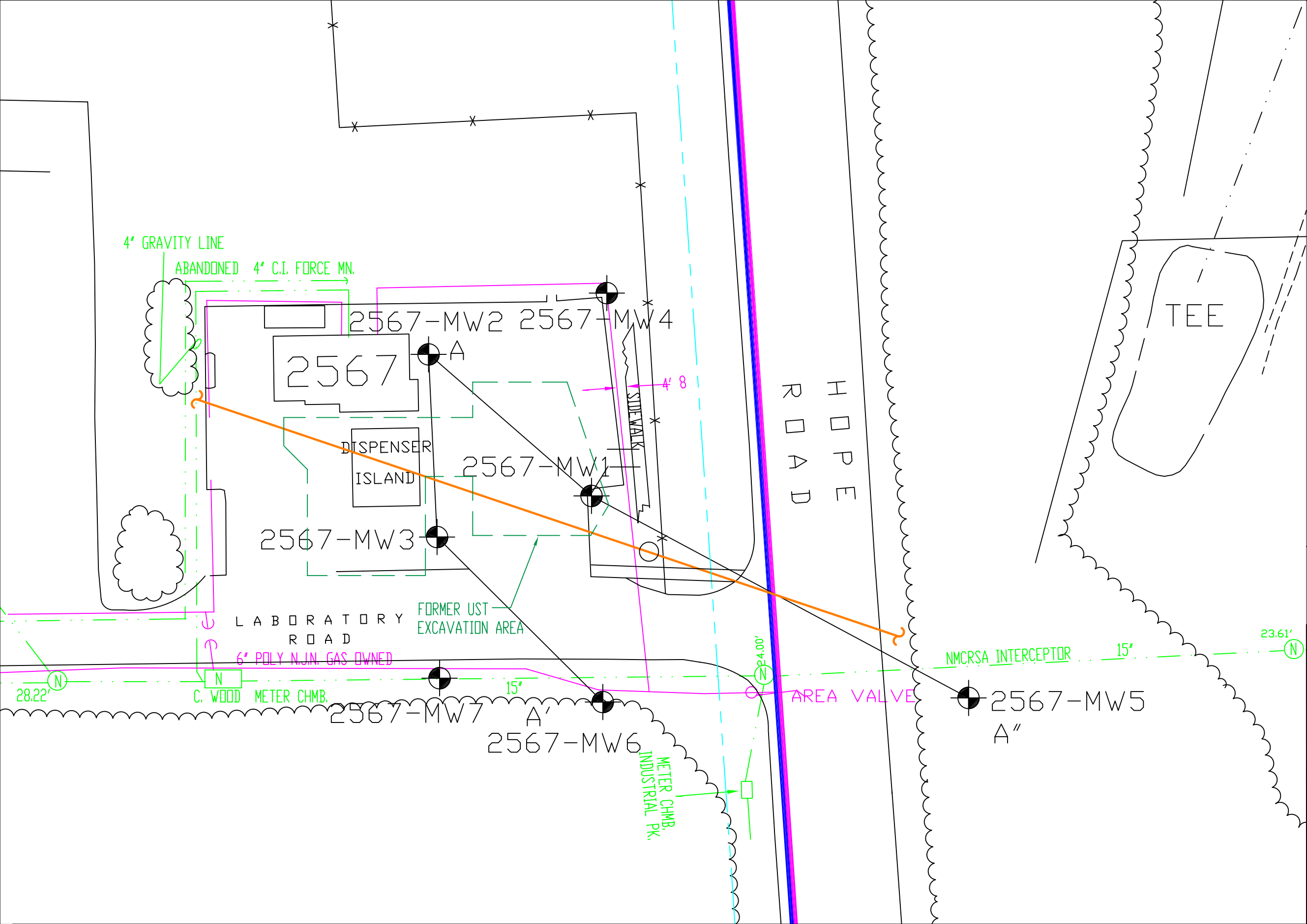
**Outcrop and Thickness of
Composite Confining Unit
Site-2567**

Fort Monmouth, New Jersey

Versar
INC.

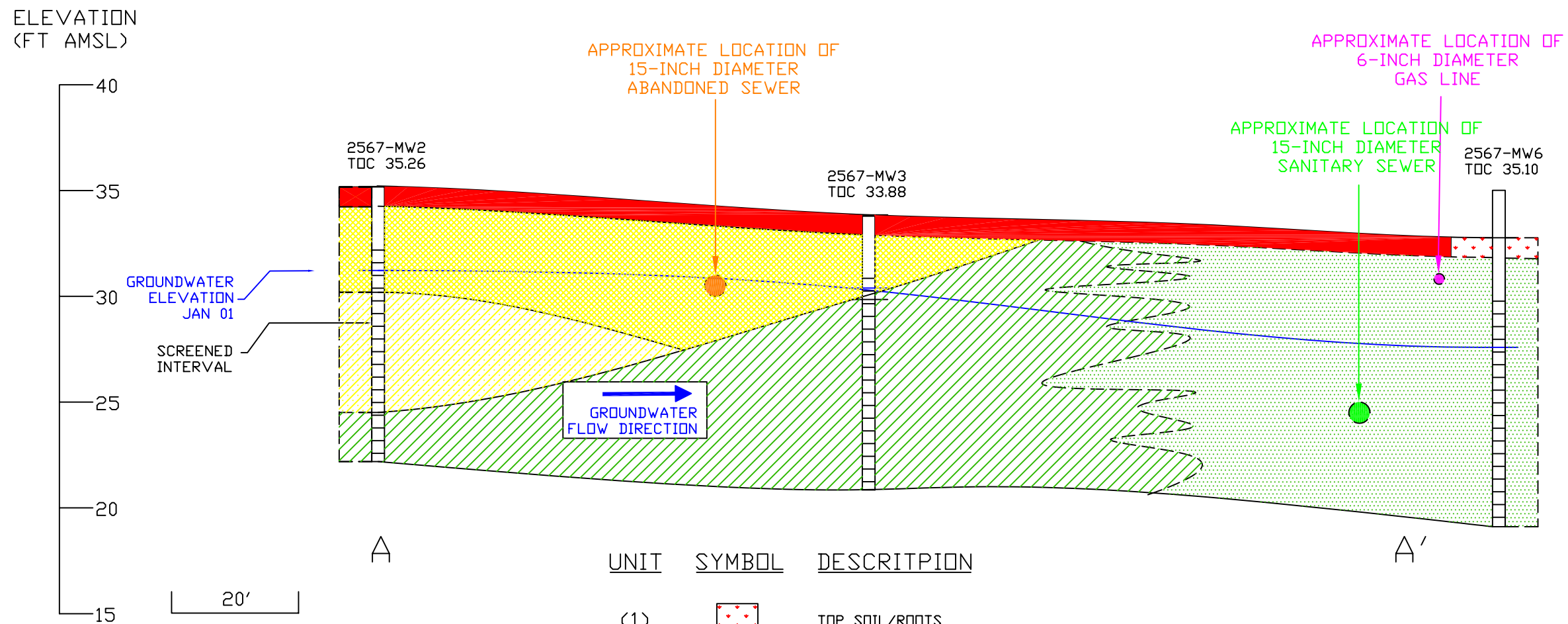
2558 Pearl Buck Road, Suite 1
Bristol, PA 19007
(215) 788-7844

Source: Zapecza, O. 1989. *Hydrogeologic Framework of the New Jersey Coastal Plain*.
USGS Professional Paper 1404-B. U.S. Government Printing Office, Washington, DC.



- NOTES:
- BUILDING
 - ROAD/CURB
 - FENCE
 - WOODED AREA
 - MONITORING WELL
 - SANITARY SEWER
 - NMCRSA MANHOLE (S) WITH INVERT ELEVATION (FT ABOVE MEAN SEA LEVEL)
 - GAS
 - WATER
 - ABANDONED SEWER LINE
 - SWALE
 - APPROXIMATE GROUNDWATER FLOW DIRECTION

REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 4-1 GEOLOGIC CROSS SECTION LOCATION MAP SITE 2567 - CHARLES WOOD AREA FORT MONMOUTH, NEW JERSEY				
DRAWN BY: T.J.K.		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No: FIGURE 4-1		
		FILE No: 2567 FIGURE 4-1		
		SCALE: 1" = 40'		
SHEET 1 OF 1				REV: A



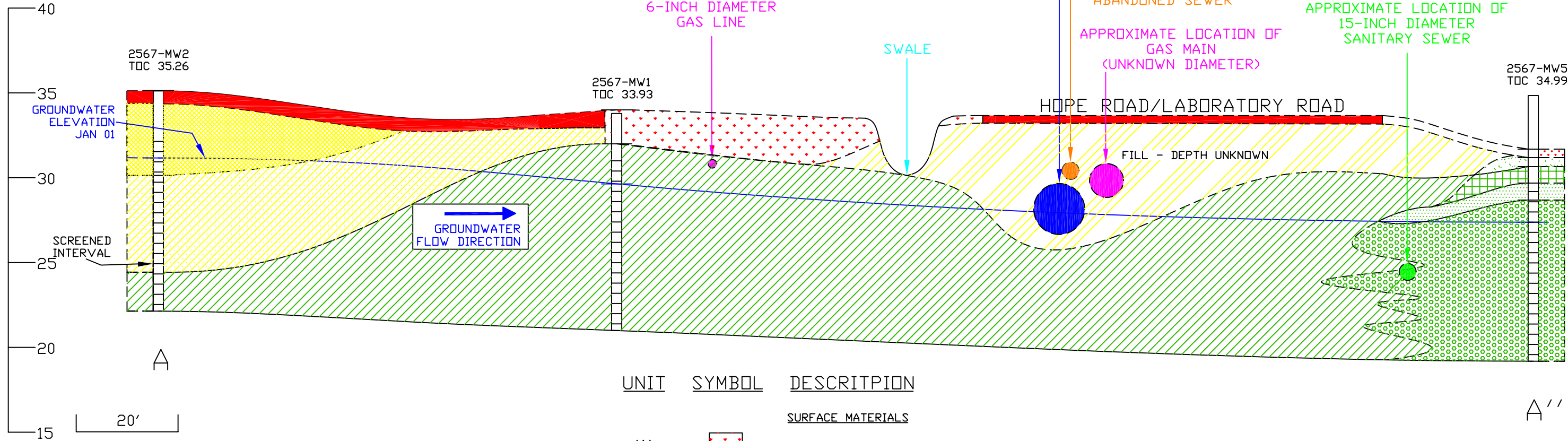
NOTES:

- 1) CROSS SECTION LINE (A TO A') IS SHOWN ON FIGURE 4-1.
- 2) VERTICAL SCALE: 1" = 6',
HORIZONTAL SCALE: 1" = 20',
VERTICAL EXAGGERATION = 3.33.
- 3) TDC = ELEVATION OF INNER WELL CASING SURVEY MARK (FEET AMSL).
- 4) EACH OF THE WELLS HAS A DIAMETER OF 4 INCHES, WHICH IS ENLARGED ON THIS DRAWING FOR PRESENTATION.
- 5) BOUNDARIES ARE DASHED WHERE INFERRED.
- 6) THE SIZE OF THE UNDERGROUND UTILITY PIPES IS PORTRAYED IN THE VERTICAL SCALE (1"=6')

UNIT	SYMBOL	DESCRIPTION
(1)		TOP SOIL/ROOTS
(2)		ASPHALT/BASE STONE
(3)		LIGHT ORANGE SAND - FILL
(4)		LIGHT GREEN SAND - FILL
<u>TINTON FORMATION</u>		
(5)		DARK BROWN/BLACK CLAY WITH SOME FINE SAND
(6)		MEDIUM FINE SAND

REV.	REVISION	APPROVED	DRAWN BY
TITLE: FIGURE 4-2 GEOLOGIC CROSS SECTION A-A' SITE 2567- CHARLES WOOD AREA FORT MONMOUTH, NEW JERSEY			
DRAWN BY: PS/TJK		DATE DRAWN: 10 AUG 01	
CHECKED BY:		DATE CHECKED:	
APPROVED BY:		DATE APPROVED:	
		DRAWING No: FIGURE 4-2	
201 GIBRALTAR ROAD, SUITE 100 HOSHAM, PA 19044 (215) 957-0855		FILE No: 2567 FIG 4-2	
		SCALE: 1" = 20' (VERT:1"=6')	
		SHEET 1 OF 1 REV: A	

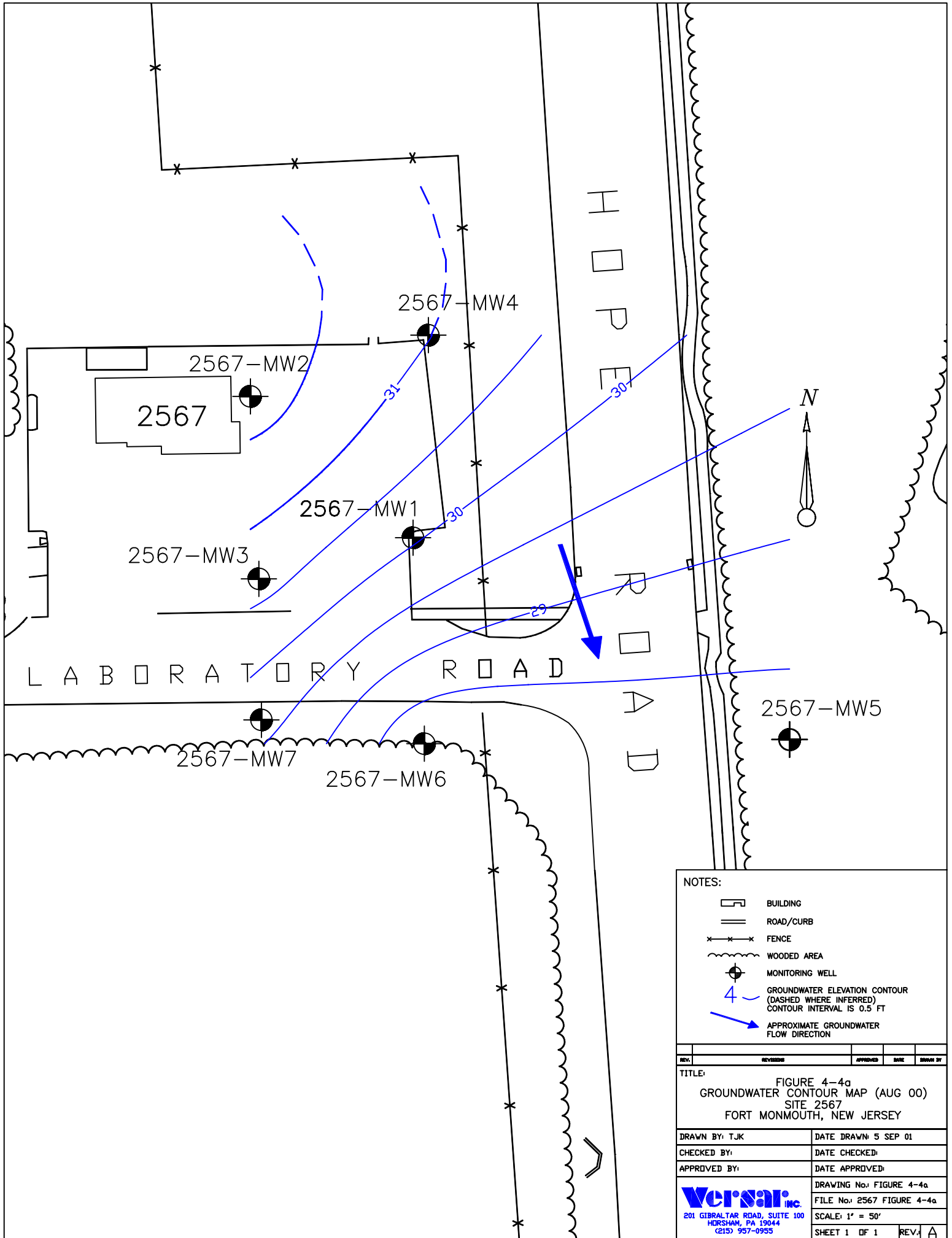
ELEVATION
(FT AMSL)



UNIT	SYMBOL	DESCRIPTION
<u>SURFACE MATERIALS</u>		
(1)		TOP SOIL/ROOTS
(2)		ASPHALT/BASE STONE
(3)		LIGHT ORANGE SAND - FILL
(4)		LIGHT GREEN SAND - FILL
(7)		FILL - UNKNOWN DEPTH AND LITHOLOGY
<u>TINTON FORMATION</u>		
(5)		DARK BROWN/BLACK CLAY WITH SOME FINE GREEN SAND
(8)		BROWN FINE SAND
(9)		BLACK, SOFT CLAY
(10)		BROWN FINE SAND AND SILTS
(11)		GRAY MEDIUM SAND WITH WELL-ROUNDED GRAVEL

- NOTES:
- CROSS SECTION LINE (A TO A'') IS SHOWN ON FIGURE 4-1.
 - VERTICAL SCALE: 1" = 6',
HORIZONTAL SCALE: 1" = 20',
VERTICAL EXAGGERATION = 3.33.
 - TDC = ELEVATION OF INNER WELL CASING SURVEY MARK (FEET AMSL).
 - EACH OF THE WELLS HAS A DIAMETER OF 4 INCHES, WHICH IS ENLARGED ON THIS DRAWING FOR PRESENTATION.
 - BOUNDARIES ARE DASHED WHERE INFERRED.
 - THE SIZE OF THE UNDERGROUND UTILITY PIPES IS PORTRAYED IN THE VERTICAL SCALE (1"=6')
 - THE SIZE OF THE UNDERGROUND UTILITY PIPES IS REPRESENTED IN THE VERTICAL SCALE (1"=6')

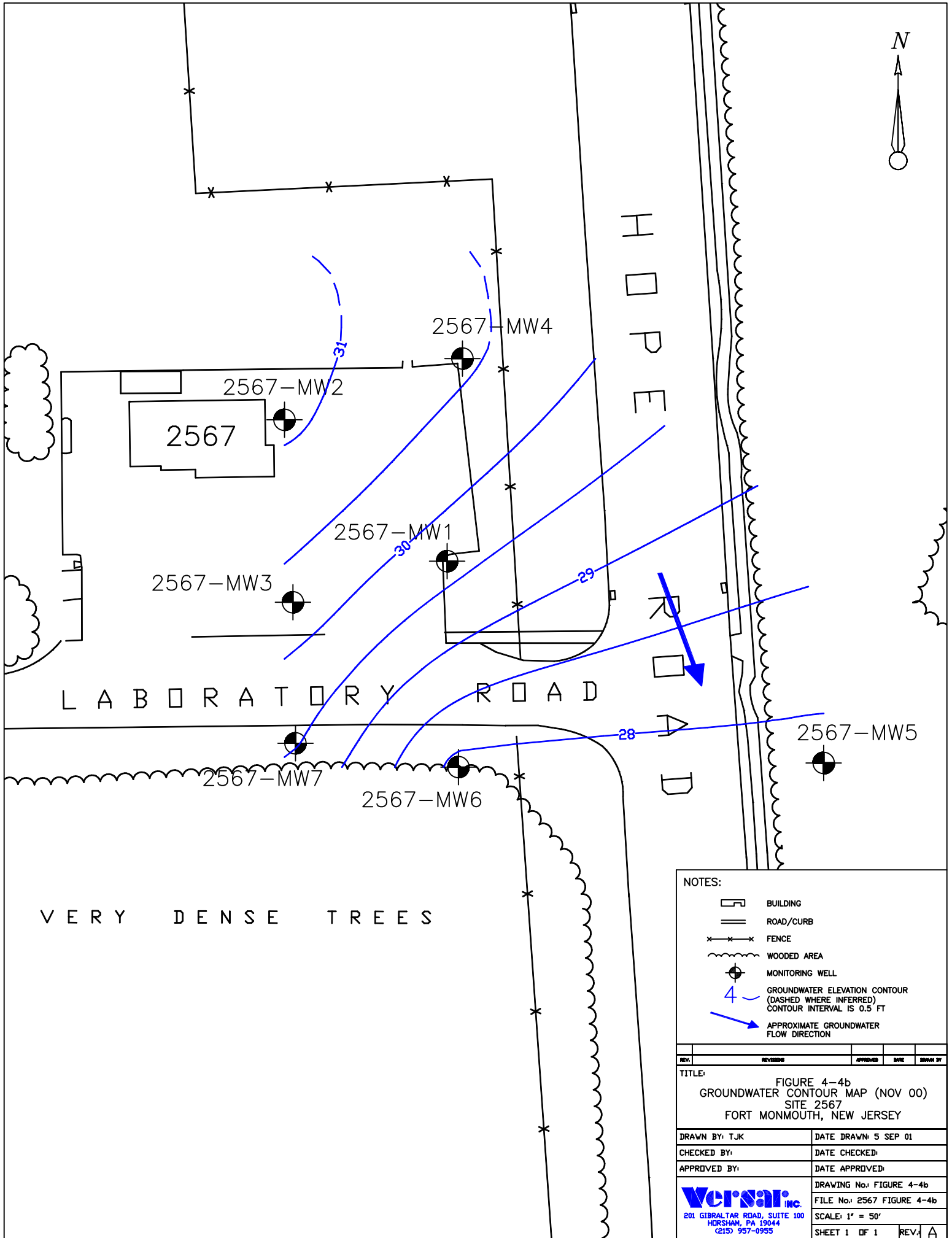
REV.	REVISION	APPROVED	DRAWN BY
TITLE: FIGURE 4-3 GEOLOGIC CROSS SECTION A-A'' SITE 2567- CHARLES WOOD AREA FORT MONMOUTH, NEW JERSEY			
DRAWN BY: PS/TJK		DATE DRAWN: 10 AUG 01	
CHECKED BY:		DATE CHECKED:	
APPROVED BY:		DATE APPROVED:	
		DRAWING No.: FIGURE 4-3	
201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0944		FILE No.: 2567 FIG. 4-3	
		SCALE: 1" = 20' (VERT: 1"=6')	
		SHEET 1 OF 1 REV. A	



NOTES:

-  BUILDING
-  ROAD/CURB
-  FENCE
-  WOODED AREA
-  MONITORING WELL
-  4 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 0.5 FT
-  APPROXIMATE GROUNDWATER FLOW DIRECTION

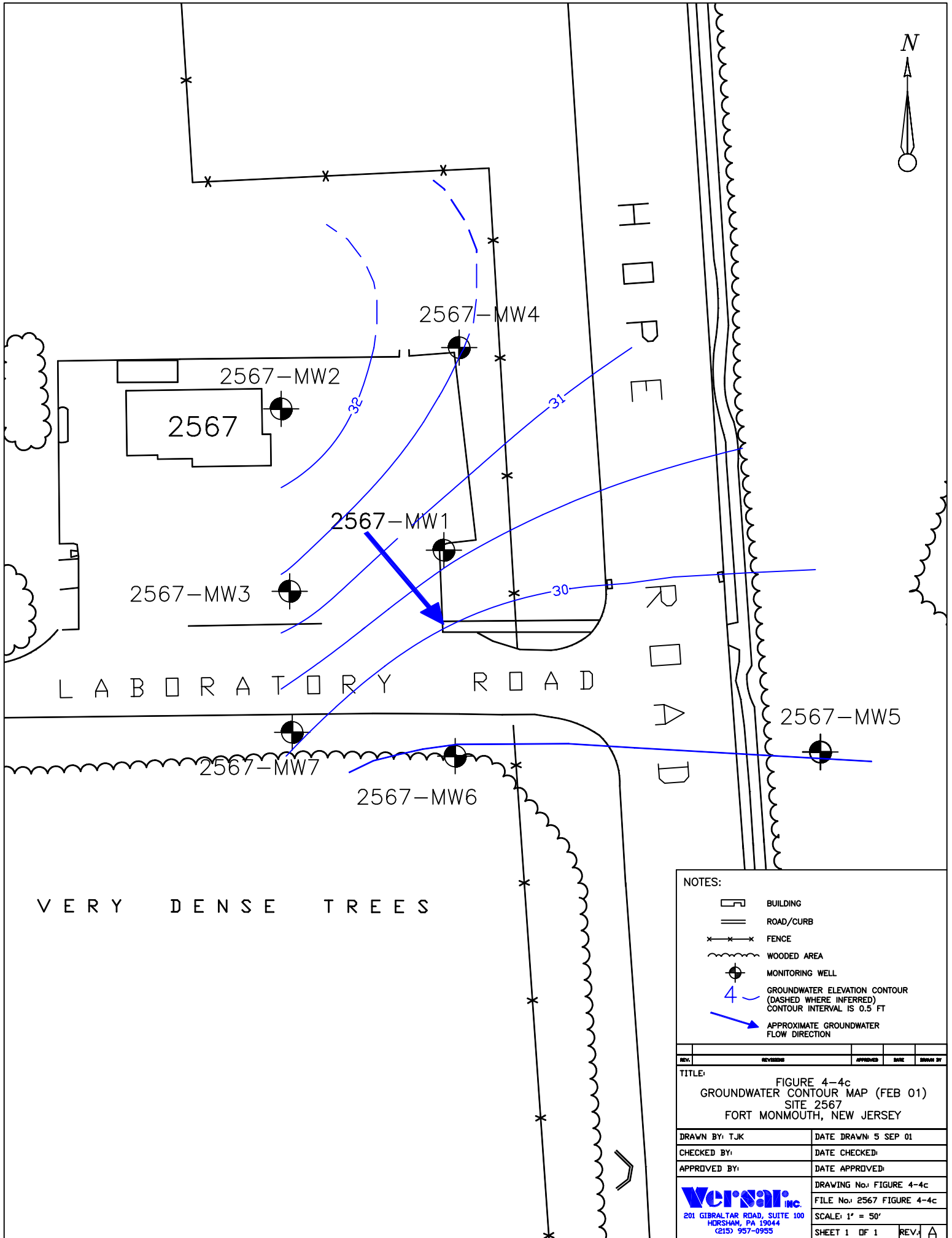
REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE:				
FIGURE 4-4a				
GROUNDWATER CONTOUR MAP (AUG 00)				
SITE 2567				
FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4a		
		FILE No.: 2567 FIGURE 4-4a		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

- BUILDING
- ROAD/CURB
- FENCE
- WOODED AREA
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 0.5 FT
- APPROXIMATE GROUNDWATER FLOW DIRECTION

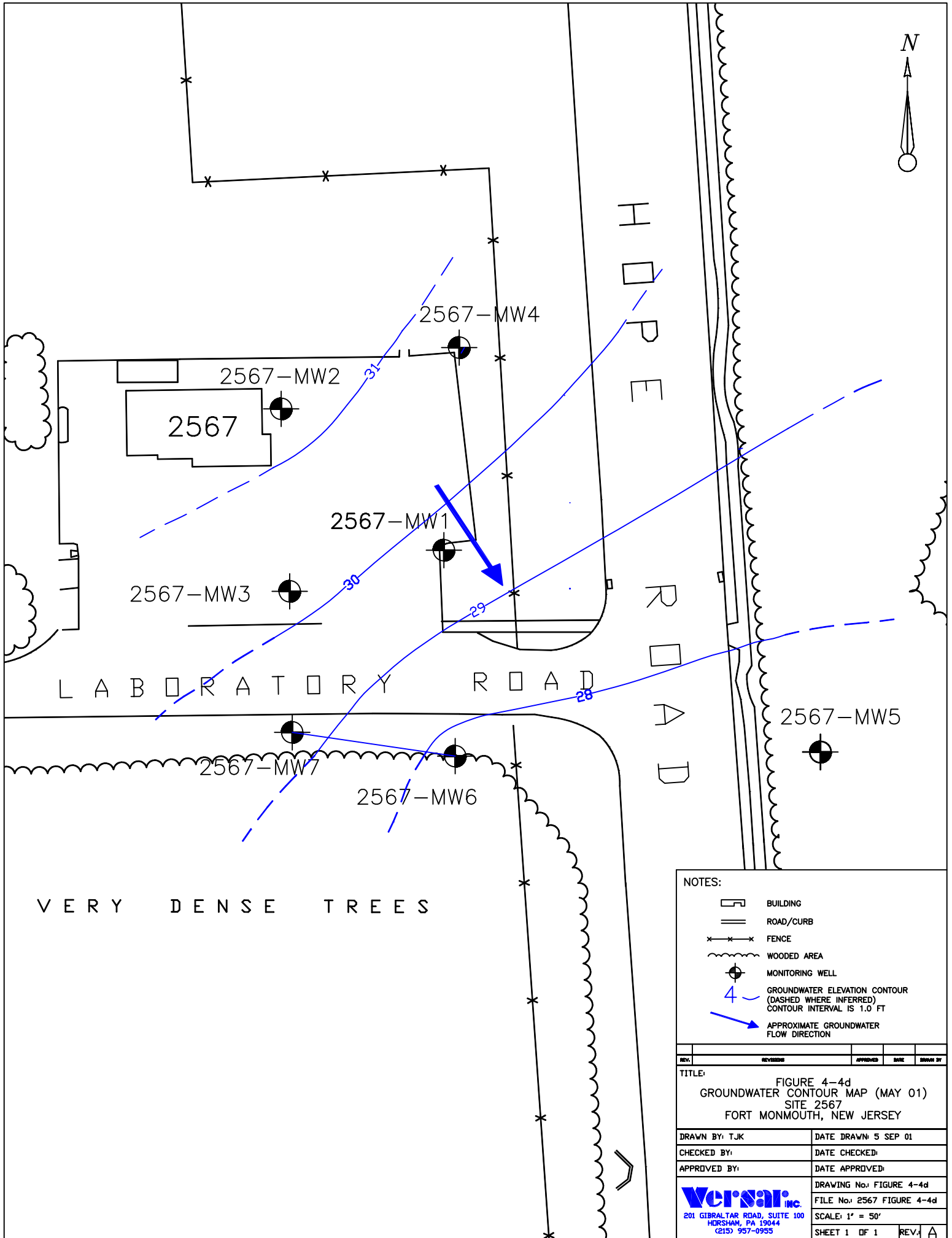
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TITLE:				
FIGURE 4-4b GROUNDWATER CONTOUR MAP (NOV 00) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4b		
		FILE No.: 2567 FIGURE 4-4b		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

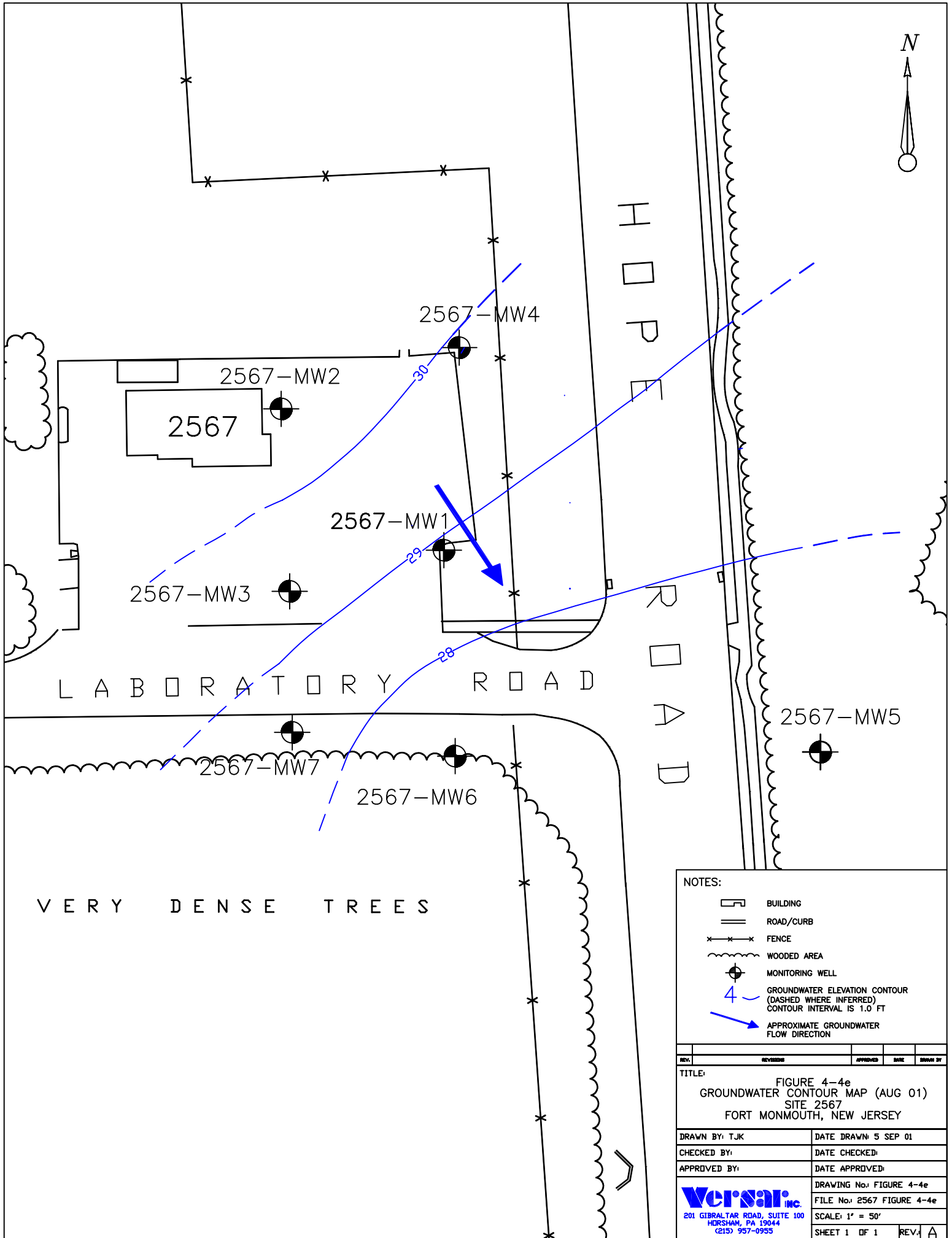
-  BUILDING
-  ROAD/CURB
-  FENCE
-  WOODED AREA
-  MONITORING WELL
-  GROUNDWATER ELEVATION CONTOUR
(DASHED WHERE INFERRED)
CONTOUR INTERVAL IS 0.5 FT
-  APPROXIMATE GROUNDWATER FLOW DIRECTION

REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE:				
FIGURE 4-4c GROUNDWATER CONTOUR MAP (FEB 01) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4c		
		FILE No.: 2567 FIGURE 4-4c		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



- NOTES:
- BUILDING
 - ROAD/CURB
 - FENCE
 - WOODED AREA
 - MONITORING WELL
 - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
 - APPROXIMATE GROUNDWATER FLOW DIRECTION

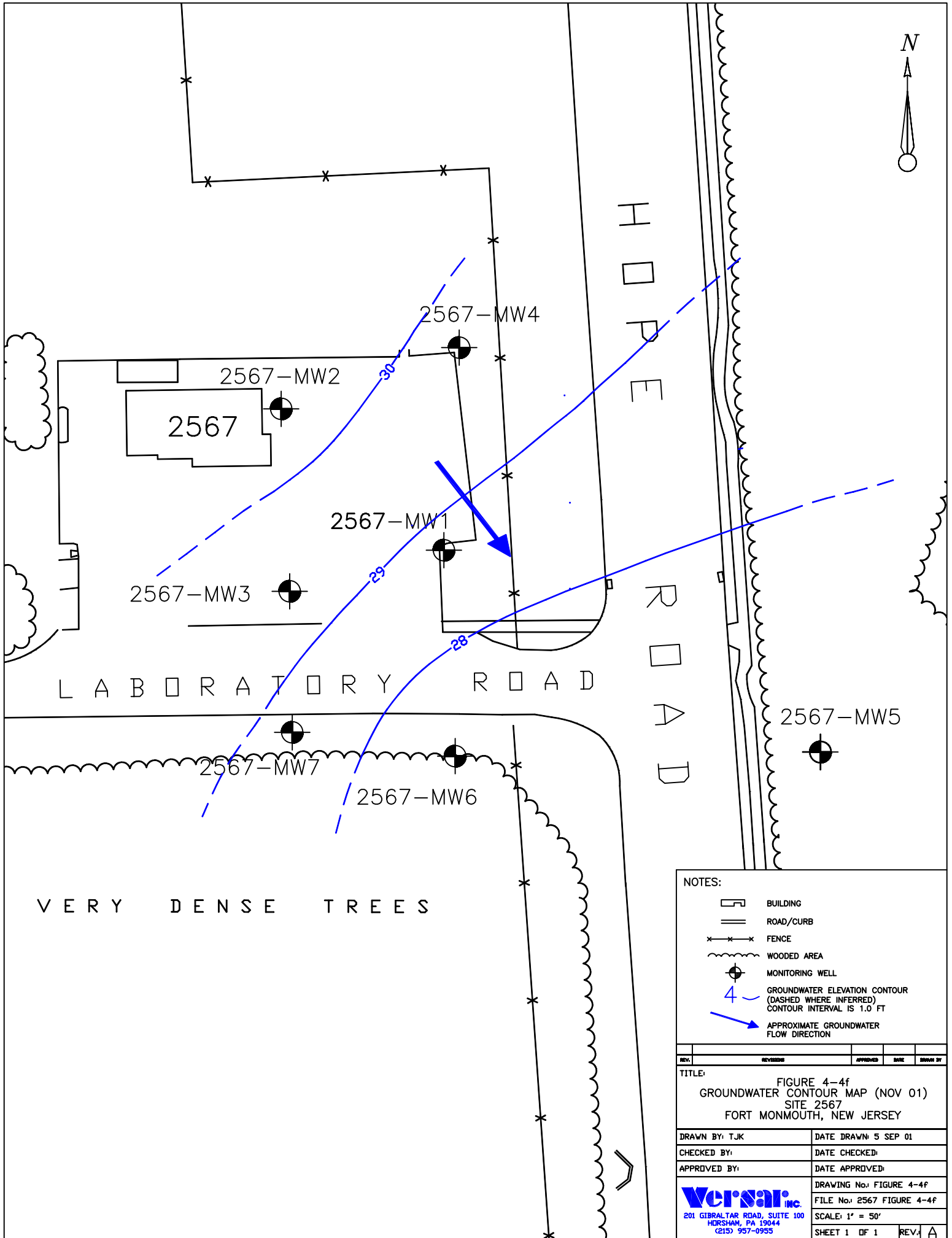
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TITLE:				
FIGURE 4-4d GROUNDWATER CONTOUR MAP (MAY 01) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4d		
		FILE No.: 2567 FIGURE 4-4d		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

- BUILDING
- ROAD/CURB
- FENCE
- WOODED AREA
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
- APPROXIMATE GROUNDWATER FLOW DIRECTION

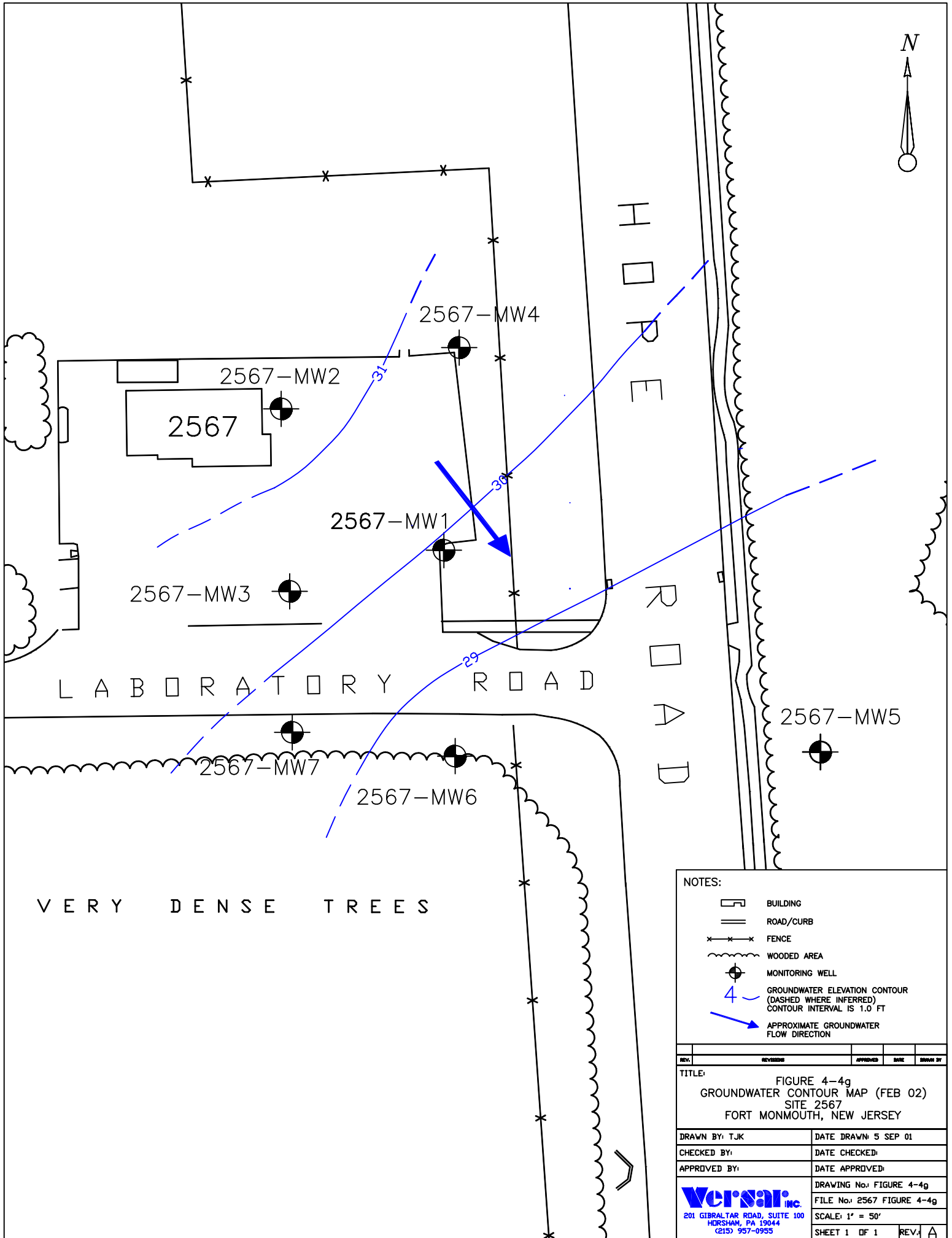
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FIGURE 4-4e GROUNDWATER CONTOUR MAP (AUG 01) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
Versar 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4e		
		FILE No.: 2567 FIGURE 4-4e		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

-  BUILDING
-  ROAD/CURB
-  FENCE
-  WOODED AREA
-  MONITORING WELL
-  GROUNDWATER ELEVATION CONTOUR
(DASHED WHERE INFERRED)
CONTOUR INTERVAL IS 1.0 FT
-  APPROXIMATE GROUNDWATER
FLOW DIRECTION

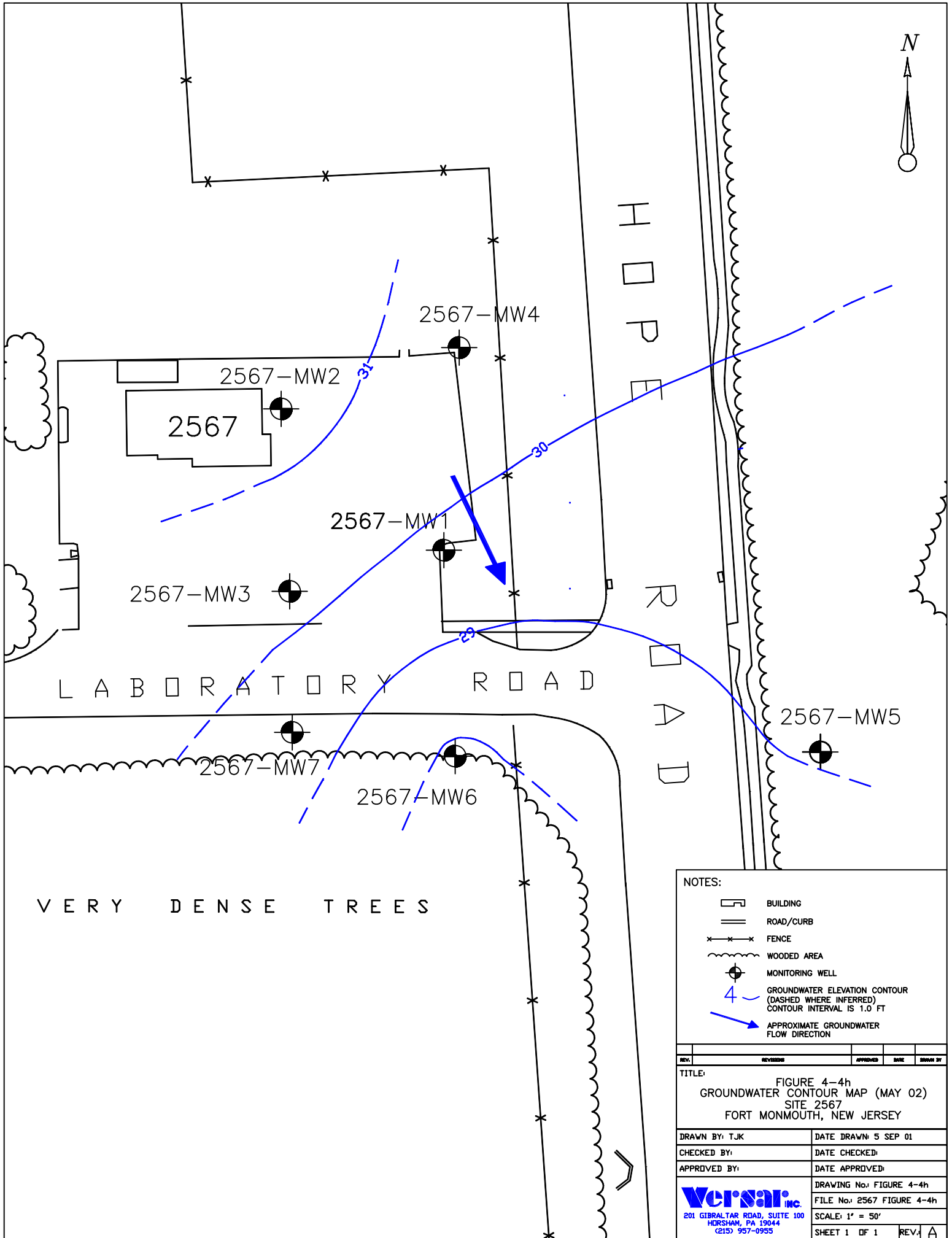
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TITLE:				
FIGURE 4-4f GROUNDWATER CONTOUR MAP (NOV 01) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4F		
		FILE No.: 2567 FIGURE 4-4F		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

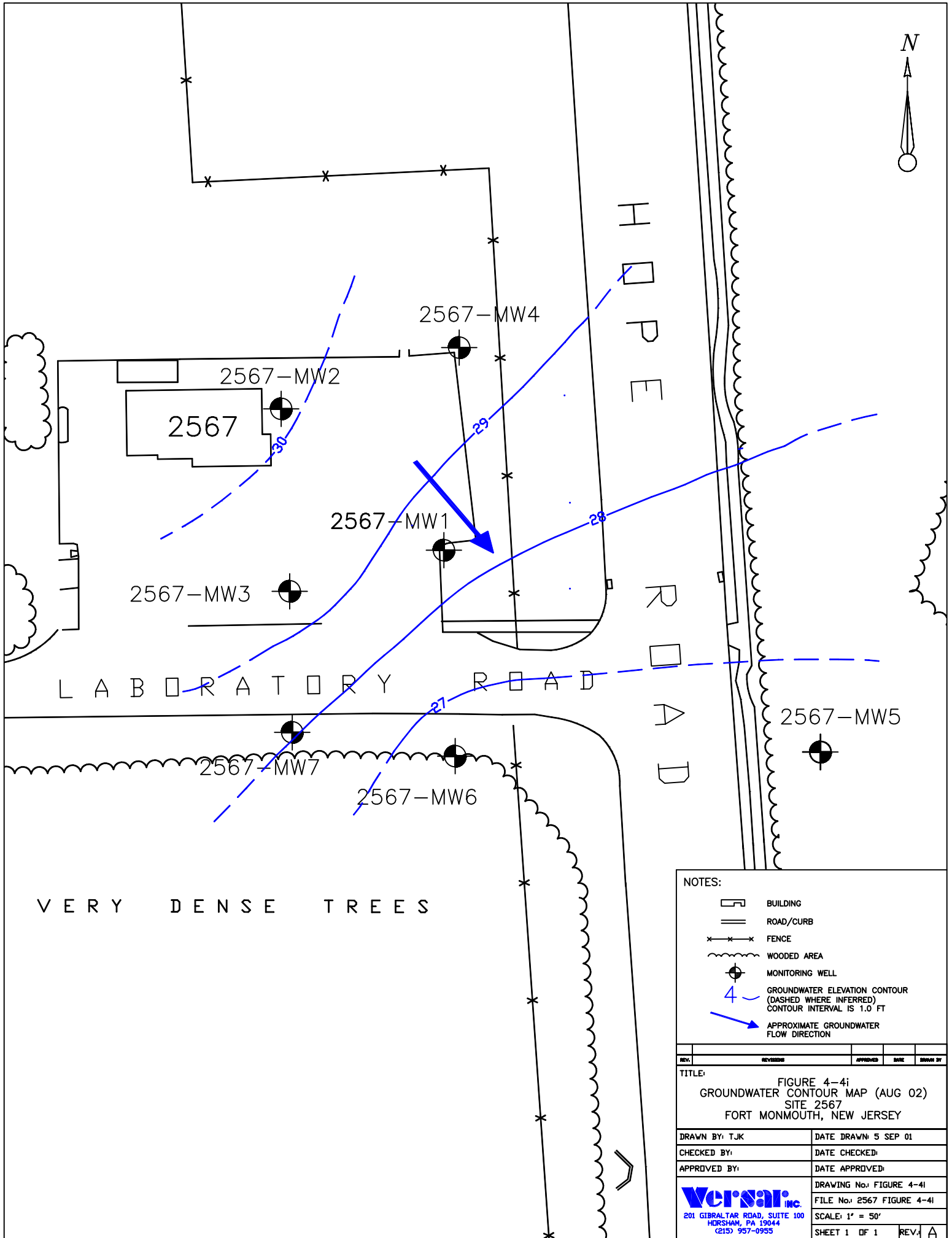
-  BUILDING
-  ROAD/CURB
-  FENCE
-  WOODED AREA
-  MONITORING WELL
-  GROUNDWATER ELEVATION CONTOUR
(DASHED WHERE INFERRED)
CONTOUR INTERVAL IS 1.0 FT
-  APPROXIMATE GROUNDWATER
FLOW DIRECTION

REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE:				
FIGURE 4-4g				
GROUNDWATER CONTOUR MAP (FEB 02)				
SITE 2567				
FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4g		
		FILE No.: 2567 FIGURE 4-4g		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



- NOTES:
- BUILDING
 - ROAD/CURB
 - FENCE
 - WOODED AREA
 - MONITORING WELL
 - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
 - APPROXIMATE GROUNDWATER FLOW DIRECTION

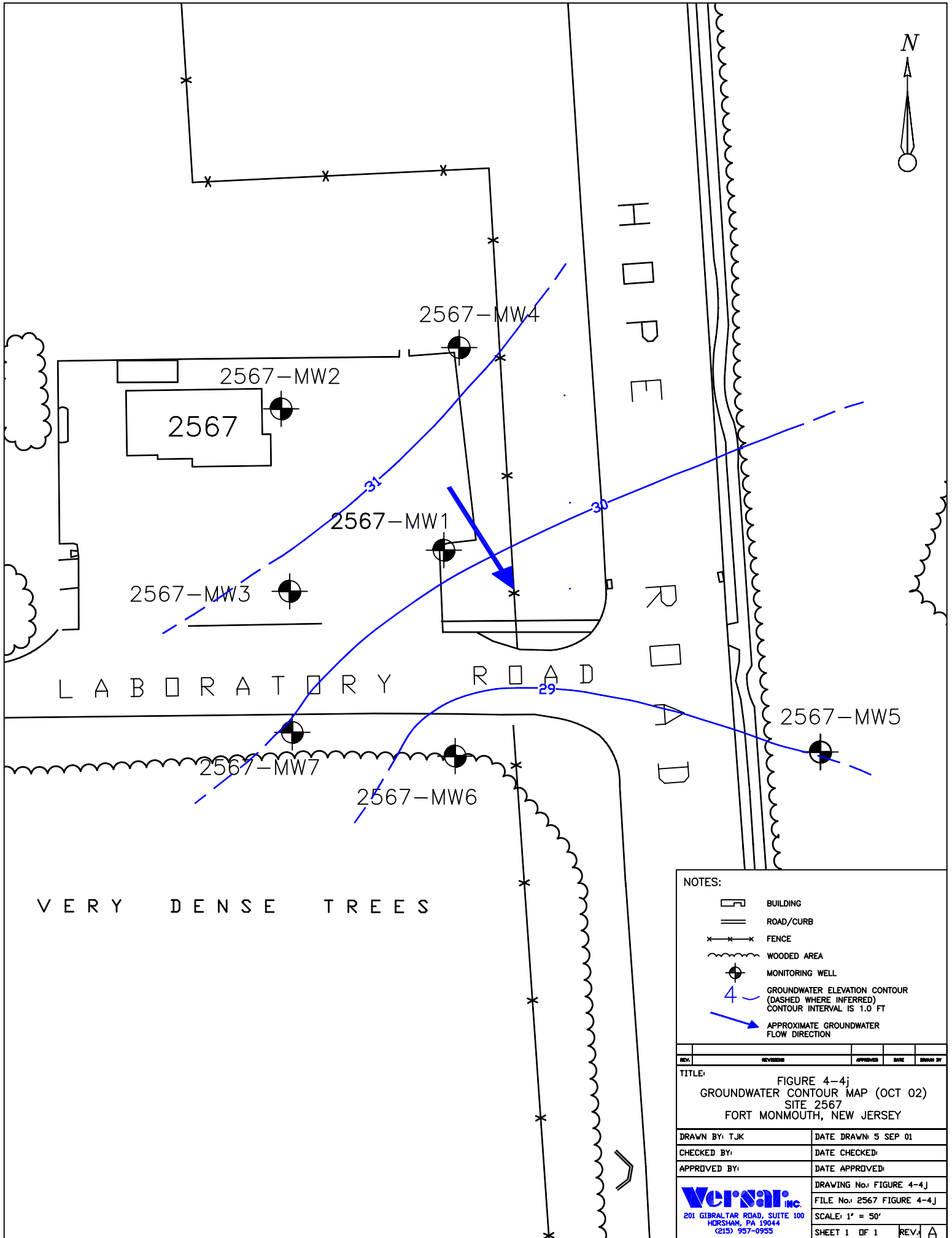
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TITLE:				
FIGURE 4-4h GROUNDWATER CONTOUR MAP (MAY 02) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4h		
		FILE No.: 2567 FIGURE 4-4h		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

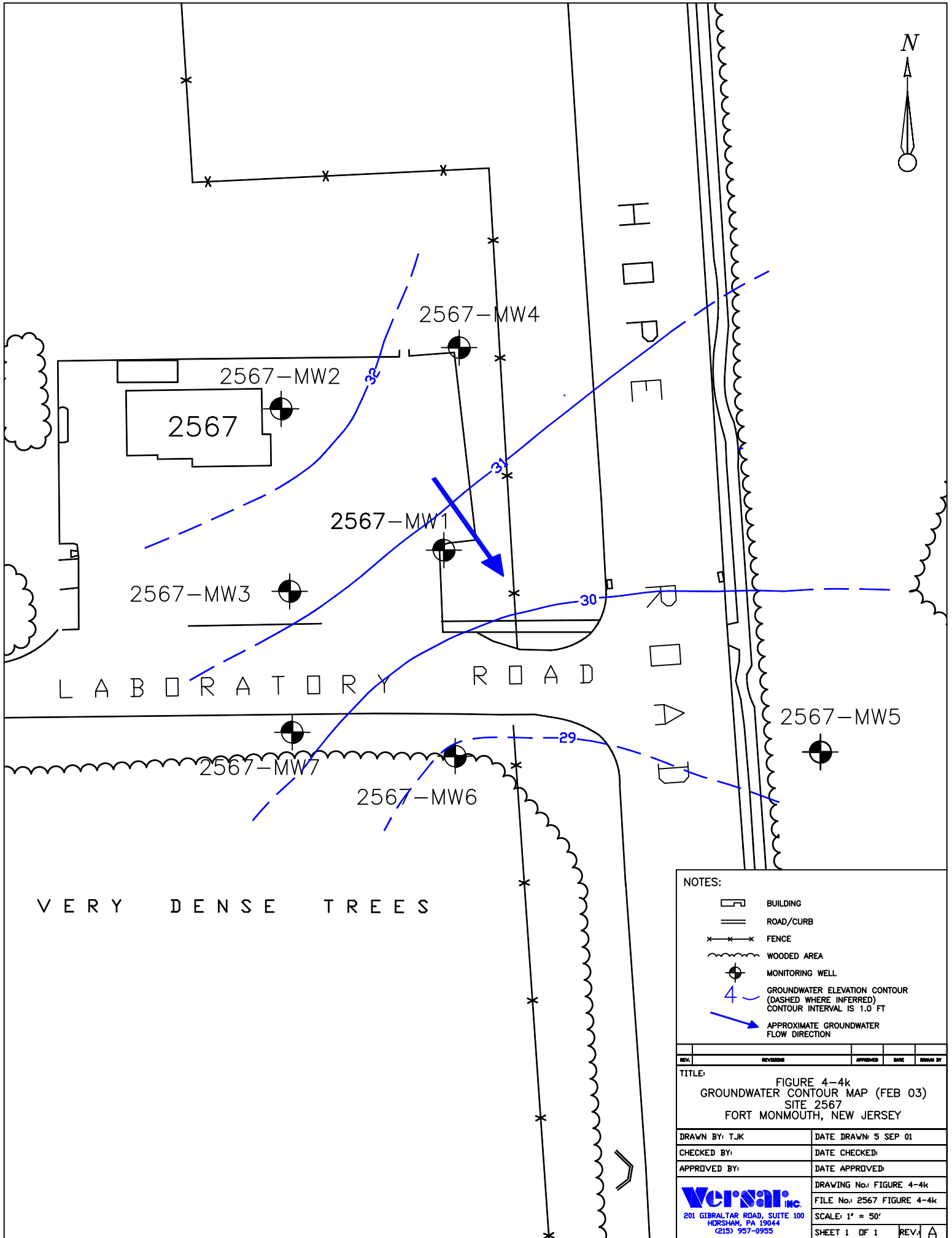
- BUILDING
- ROAD/CURB
- FENCE
- WOODED AREA
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
- APPROXIMATE GROUNDWATER FLOW DIRECTION

REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 4-4i GROUNDWATER CONTOUR MAP (AUG 02) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4i		
		FILE No.: 2567 FIGURE 4-4i		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



- NOTES:
- BUILDING
 - ROAD/CURB
 - FENCE
 - WOODED AREA
 - MONITORING WELL
 - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
 - APPROXIMATE GROUNDWATER FLOW DIRECTION

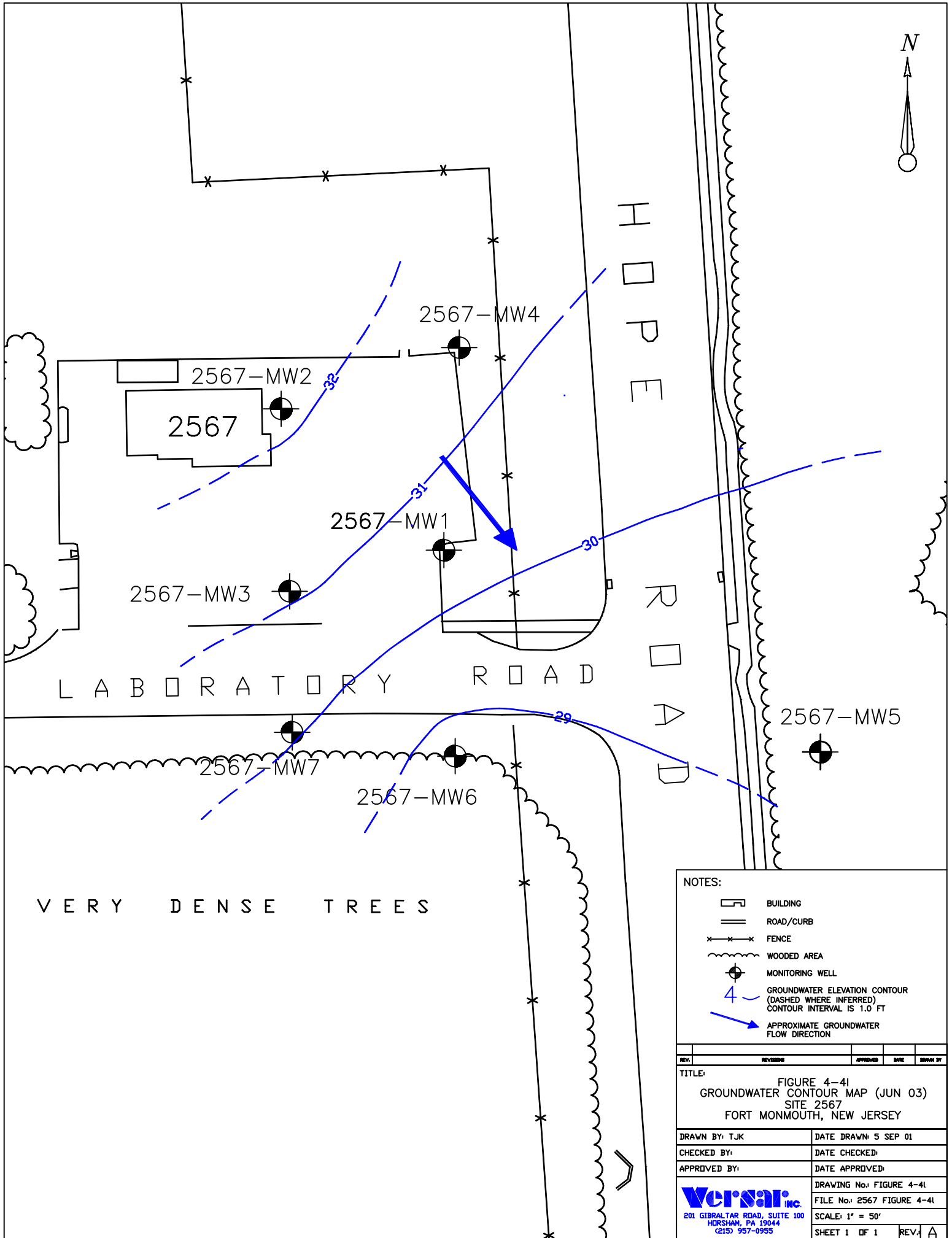
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TITLE: FIGURE 4-4j GROUNDWATER CONTOUR MAP (OCT 02) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4J		
		FILE No.: 2567 FIGURE 4-4J		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

-  BUILDING
-  ROAD/CURB
-  FENCE
-  WOODED AREA
-  MONITORING WELL
-  GROUNDWATER ELEVATION CONTOUR
(DASHED WHERE INFERRED)
CONTOUR INTERVAL IS 1.0 FT
-  APPROXIMATE GROUNDWATER
FLOW DIRECTION

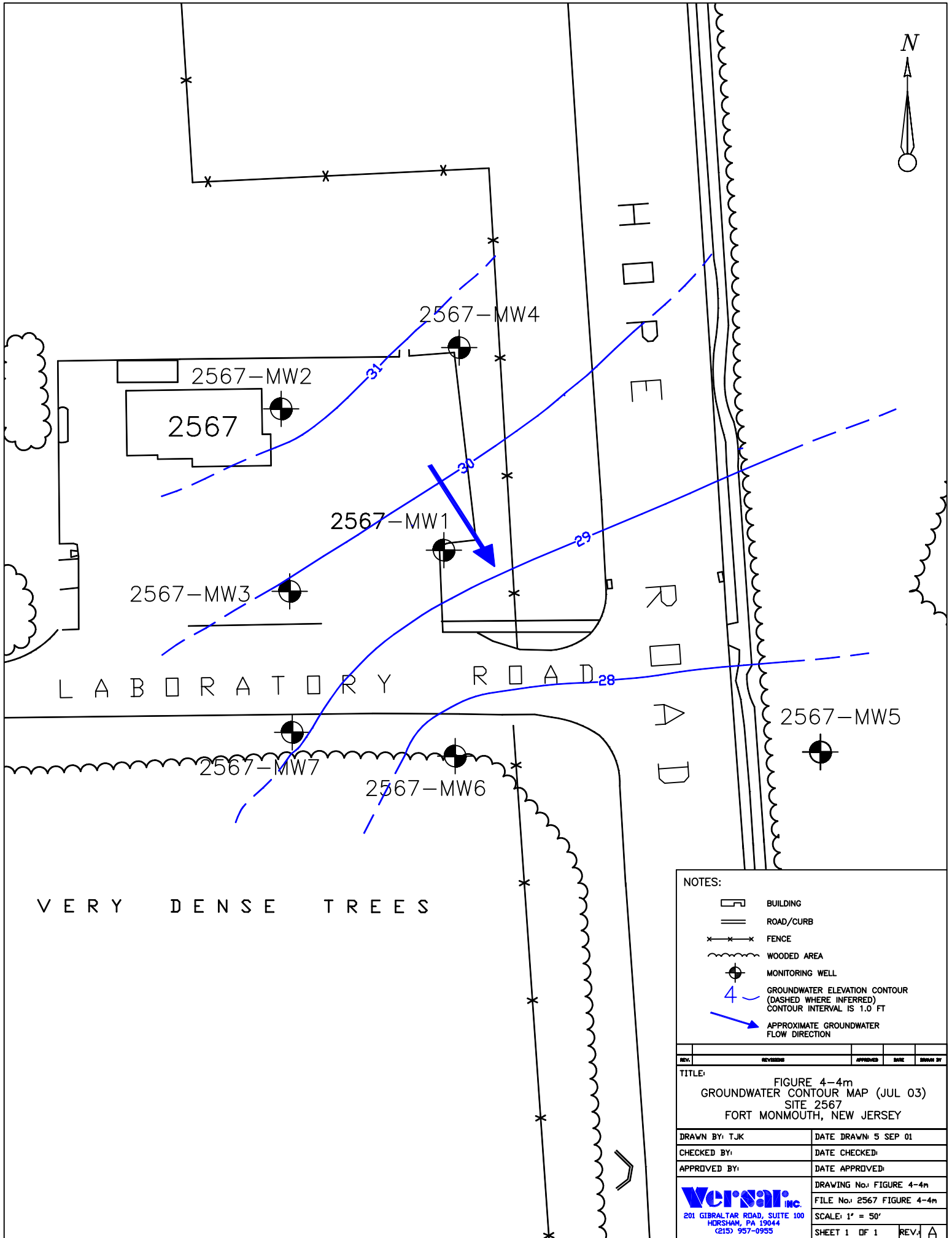
REV.	REVISIONS	APPROVED	DATE	DRAWN BY
TITLE:				
FIGURE 4-4k GROUNDWATER CONTOUR MAP (FEB 03) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4k		
		FILE No.: 2567 FIGURE 4-4k		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

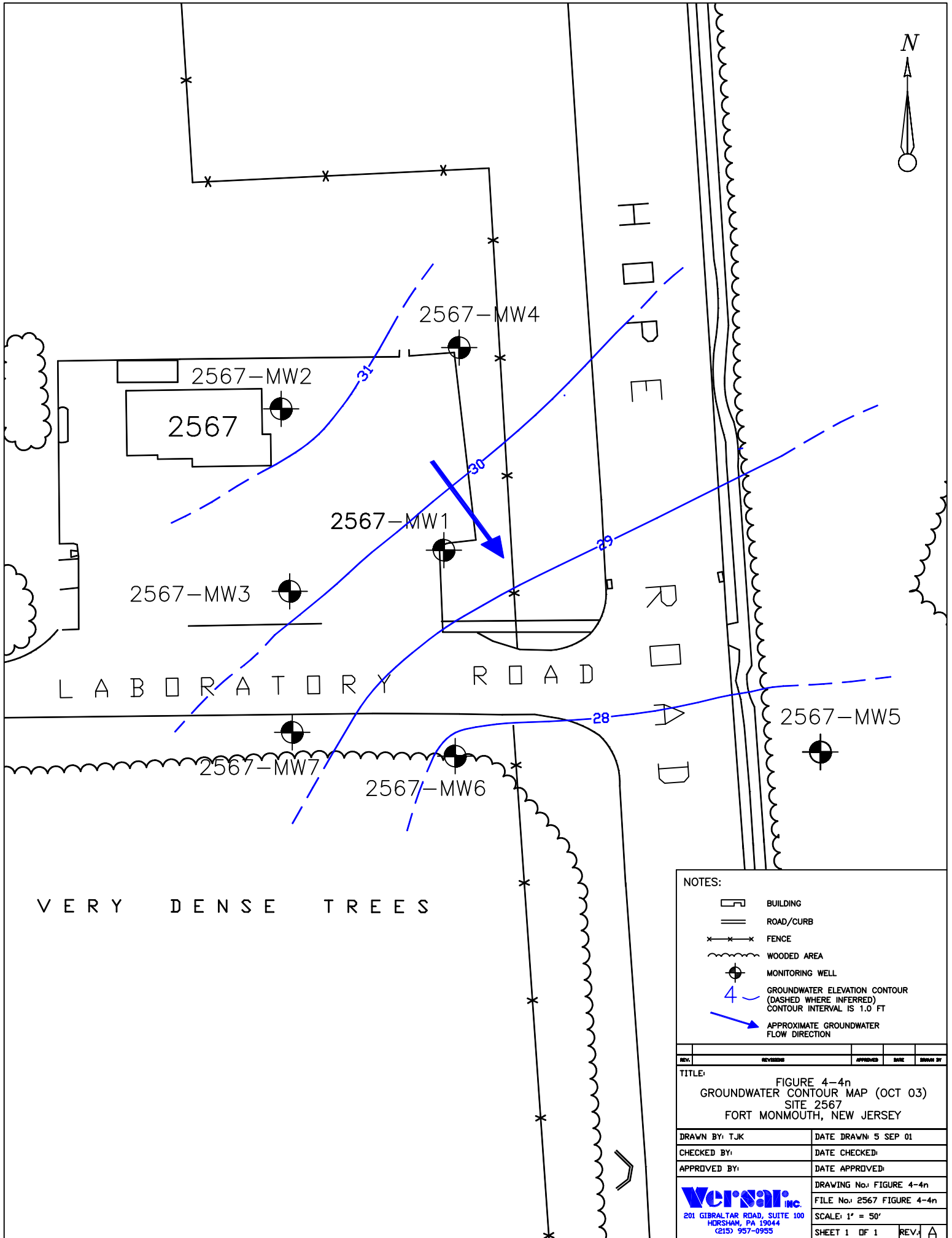
- BUILDING
- ROAD/CURB
- FENCE
- WOODED AREA
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
- APPROXIMATE GROUNDWATER FLOW DIRECTION

REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 4-41 GROUNDWATER CONTOUR MAP (JUN 03) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
Versar inc. 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-41		
		FILE No.: 2567 FIGURE 4-41		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV: A



- NOTES:
- BUILDING
 - ROAD/CURB
 - FENCE
 - WOODED AREA
 - MONITORING WELL
 - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
 - APPROXIMATE GROUNDWATER FLOW DIRECTION

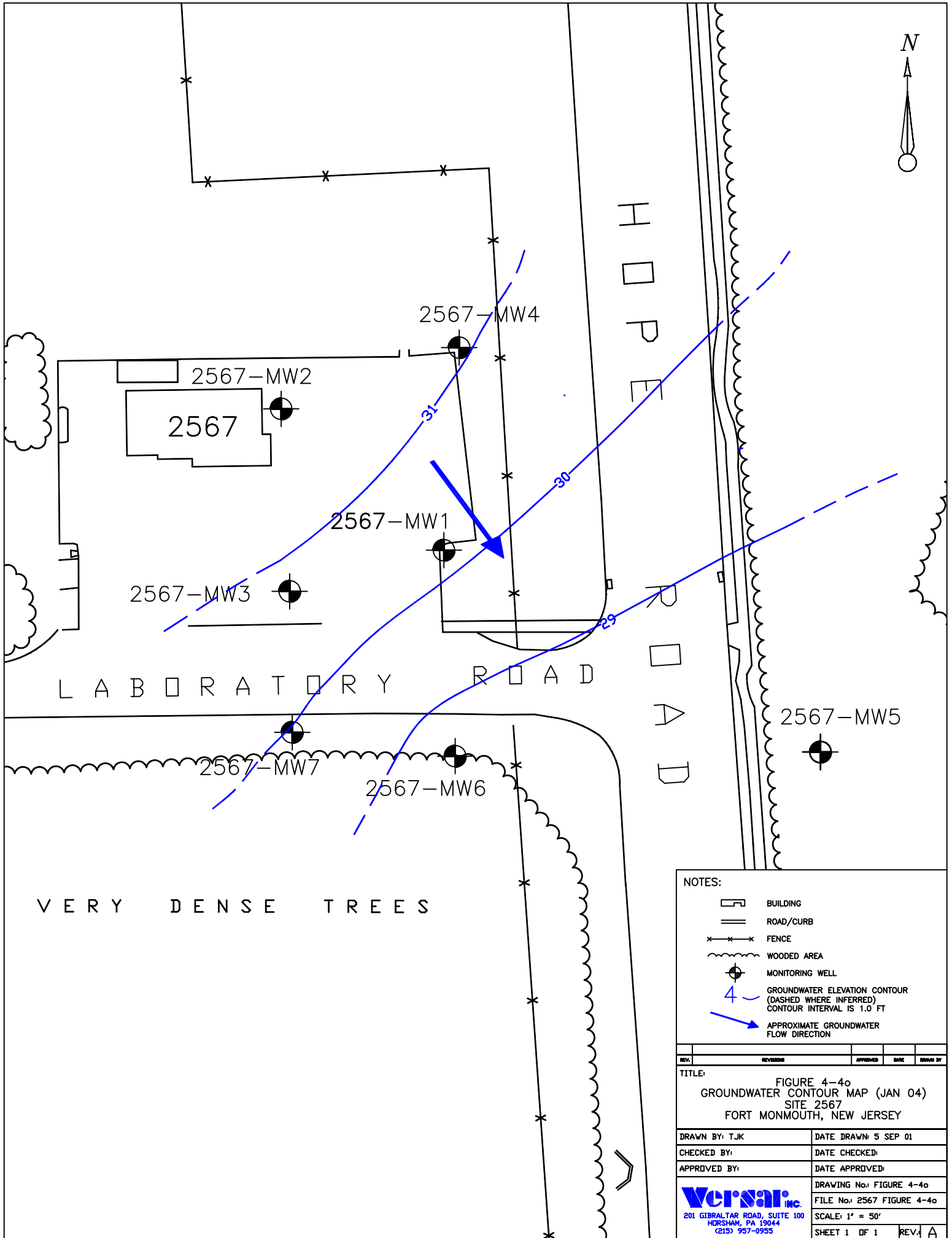
REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 4-4m GROUNDWATER CONTOUR MAP (JUL 03) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4m		
		FILE No.: 2567 FIGURE 4-4m		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A



NOTES:

- BUILDING
- ROAD/CURB
- FENCE
- WOODED AREA
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED) CONTOUR INTERVAL IS 1.0 FT
- APPROXIMATE GROUNDWATER FLOW DIRECTION

REV.	REVISIONS	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 4-4n GROUNDWATER CONTOUR MAP (OCT 03) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4n		
		FILE No.: 2567 FIGURE 4-4n		
		SCALE: 1" = 50'		
SHEET 1 OF 1		REV. A		

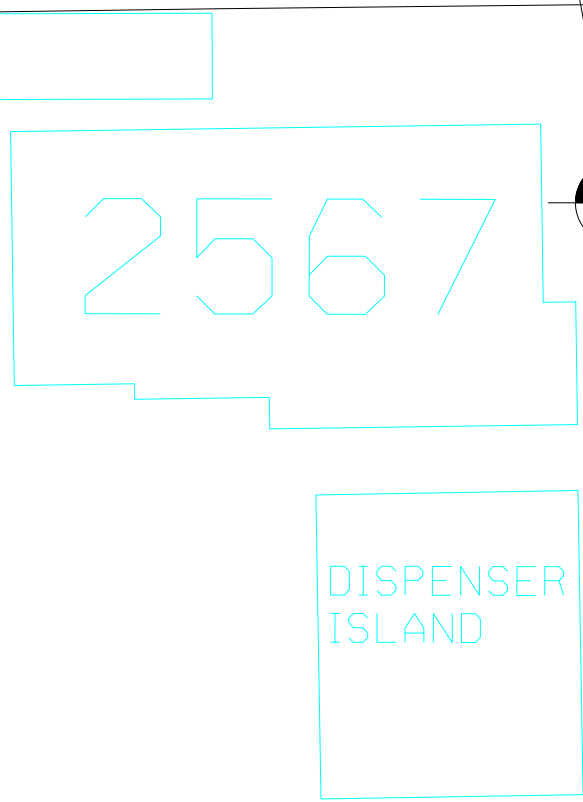
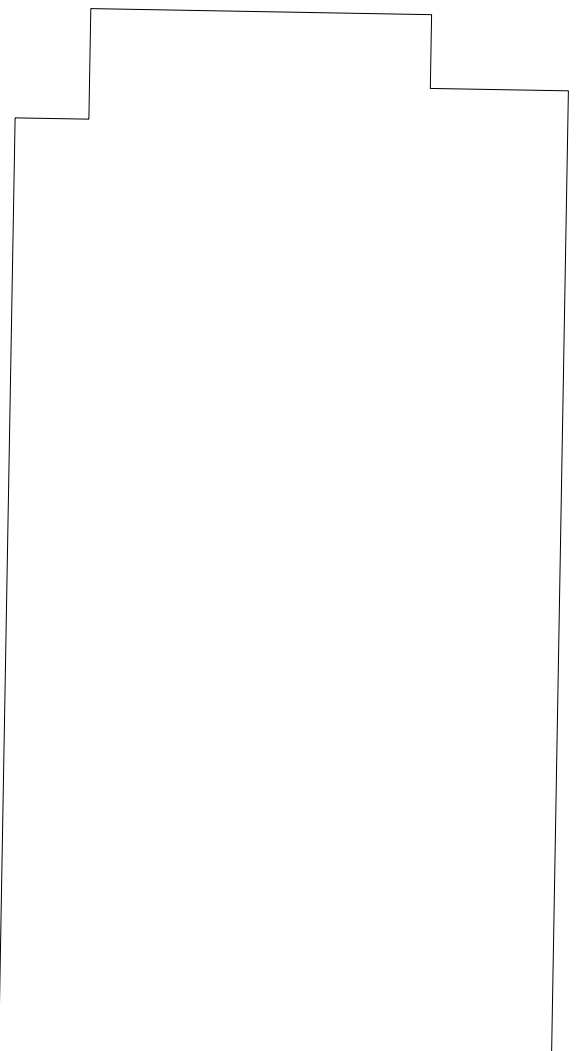
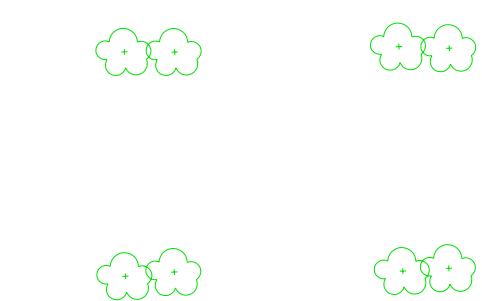
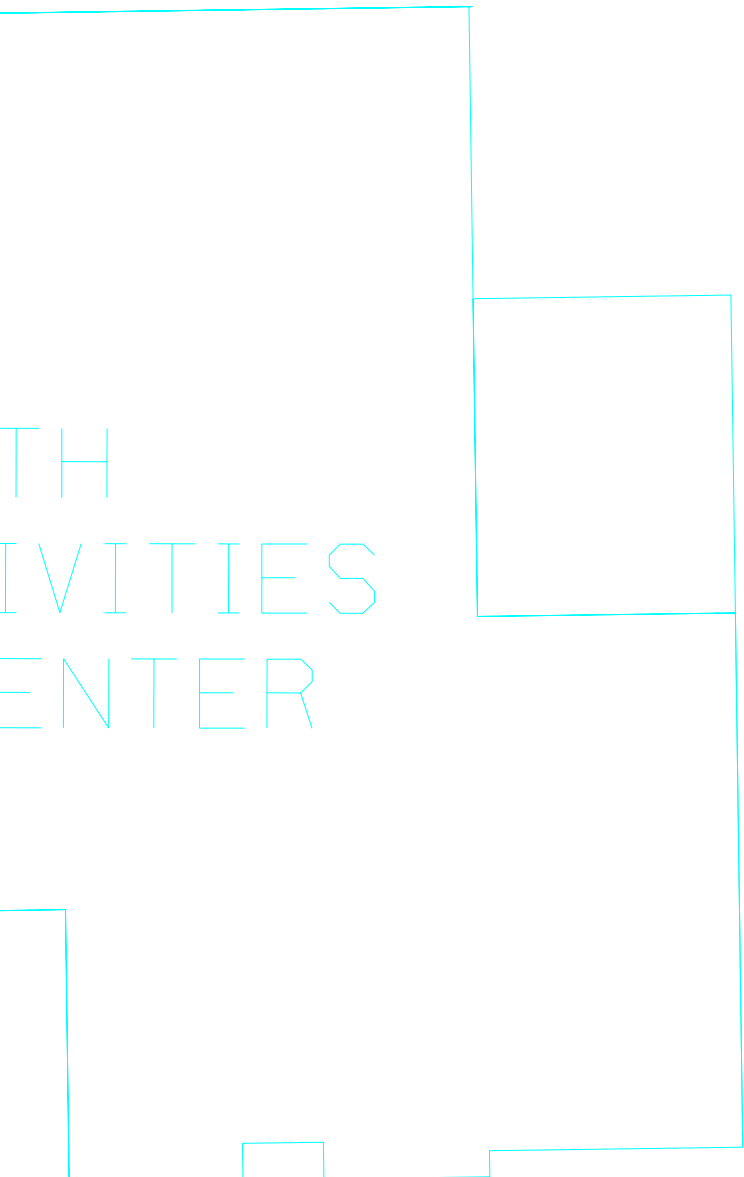
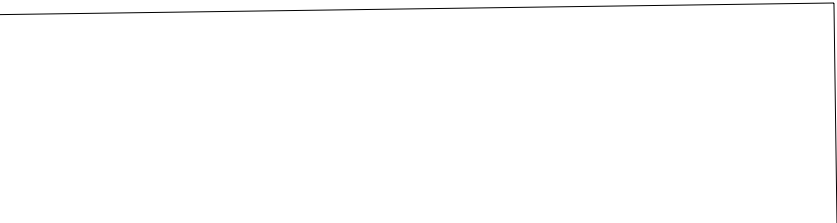


NOTES:

-  BUILDING
-  ROAD/CURB
-  FENCE
-  WOODED AREA
-  MONITORING WELL
-  GROUNDWATER ELEVATION CONTOUR
(DASHED WHERE INFERRED)
CONTOUR INTERVAL IS 1.0 FT
-  APPROXIMATE GROUNDWATER
FLOW DIRECTION

REV.	REVISION	APPROVED	DATE	DRAWN BY
TITLE:				
FIGURE 4-4o GROUNDWATER CONTOUR MAP (JAN 04) SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: TJK		DATE DRAWN: 5 SEP 01		
CHECKED BY:		DATE CHECKED:		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HORSHAM, PA 19044 (215) 957-0955		DRAWING No.: FIGURE 4-4o		
		FILE No.: 2567 FIGURE 4-4o		
		SCALE: 1" = 50'		
SHEET 1 OF 1				REV. A

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/11/97	6/28/97	12/2/97	3/4/98	6/1/98	9/24/98	12/16/98	2/24/99	5/29/99	7/21/99	10/21/99	2/14/00	5/15/00	8/22/00	11/1/00	2/9/01
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04				
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				



CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/11/97	8/28/97	12/2/97	3/4/98	6/1/98	9/25/98	12/16/98	2/24/99	5/29/99	7/21/99	10/21/99	2/14/00	5/15/00	8/22/00	11/1/00	2/9/01
TBA	100*	ND	27.52	ND	ND	27.52	ND	19.38	ND	ND	ND	ND	ND	ND	ND	ND	ND
		5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04				
TBA	100*	ND	61.42	ND	31.59	ND	ND	ND	ND	ND	ND	ND	ND				

LABORATORY ROAD

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	8/22/00	11/1/00	2/9/01	5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

VERY DENSE TREES

TRIBUTARY/DRAINAGE TO WAMPUM BROOK

2567-MW4

2567-MW2

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/11/97	8/28/97	12/2/97	3/4/98	6/1/98	9/24/98	12/16/98	2/24/99	5/29/99	7/21/99	10/21/99	2/14/00	5/15/00	8/22/00	11/1/00	2/9/01
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04				
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				

GW1 2567

2567-MW1

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	2/2/04
TBA	100*	ND

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/11/97	8/28/97	12/2/97	3/4/98	6/1/98	9/24/98	12/16/98	2/24/99	5/29/99	7/21/99	10/21/99	2/14/00	5/15/00	8/22/00	11/1/00	2/9/01
TBA	100*	ND	ND	ND	ND	ND	95.63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04	ND	ND	ND	ND
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

GW2 2567

GW3 2567

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	2/2/04
TBA	100*	ND

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	2/2/04
TBA	100*	46

W2 2567

W3 2567

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/30/04
TBA	100*	ND

W1 2567

2567-MW7

2567-MW6

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/30/04
TBA	100*	ND

W4 2567

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	4/30/04
TBA	100*	ND

2567-MW5

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	8/22/00	11/1/00	2/9/01	3/4/98	6/1/98	9/25/98	12/16/98	2/24/99	6/8/99	7/21/99	10/21/99	2/14/00	5/15/00	8/22/00	11/1/00	2/9/01
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04				
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				

CONTAMINANT OF CONCERN	NJDEP CRITERIA (ug/L)	8/22/00	11/1/00	2/9/01	5/8/01	8/15/01	11/9/01	2/26/02	5/28/02	8/20/02	10/28/02	2/26/03	6/11/03	7/22/03	10/7/03	1/16/04
TBA	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

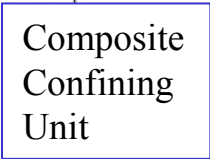
ROAD (PAVED)		WOODED AREA	
ROAD/TRAILS (UNPAVED)		TREE/BUSH	
FENCE		LIGHT POLE	
BUILDING		UTILITY POLE	
APPROXIMATE BOUNDARY		BROOK/CREEK	
BASE BOUNDARY		MARSHY AREA	

NOTES:

- ALL CONCENTRATIONS ARE GIVEN IN MICROGRAMS PER LITER (ug/L), EQUIVALENT TO PARTS PER BILLION (PPB).
- NJDEP CLEANUP CRITERIA: HIGHER OF PRACTICAL QUANTITION LIMITS (PQLs) AND GROUNDWATER QUALITY STANDARDS (GWQS) PER N.J.A.C. 7:9-6.
- EXCEEDANCES OF THE NJDEP CLEANUP CRITERIA ARE HIGHLIGHTED AND PRINTED IN BOLD-FACED TYPE.
- ND: ANALYTE NOT DETECTED IN SAMPLE.
- * = INTERIM GROUNDWATER CRITERIA
- TBA = TERT BUTYL ALCOHOL

- = MONITORING WELL
- = GEOPROBE LOCATION

REV.	REVISIONS	APPROVED	DATE	DRAWN BY
TITLE: FIGURE 5-1 GROUNDWATER SAMPLING RESULTS FOR TBA SITE 2567 FORT MONMOUTH, NEW JERSEY				
DRAWN BY: JMM		DATE DRAWN: 25 AUG 01		
CHECKED BY: TJK		DATE CHECKED: 27 AUG 01		
APPROVED BY:		DATE APPROVED:		
 201 GIBRALTAR ROAD, SUITE 100 HOBOKEN, NJ 07030 (201) 967-0900		DRAWING No.: 2567 FIG 5-1		
		FILE No.: 2567 FIG 5-1		
		SCALE: 1" = 20'		
SHEET		OF	REV.	

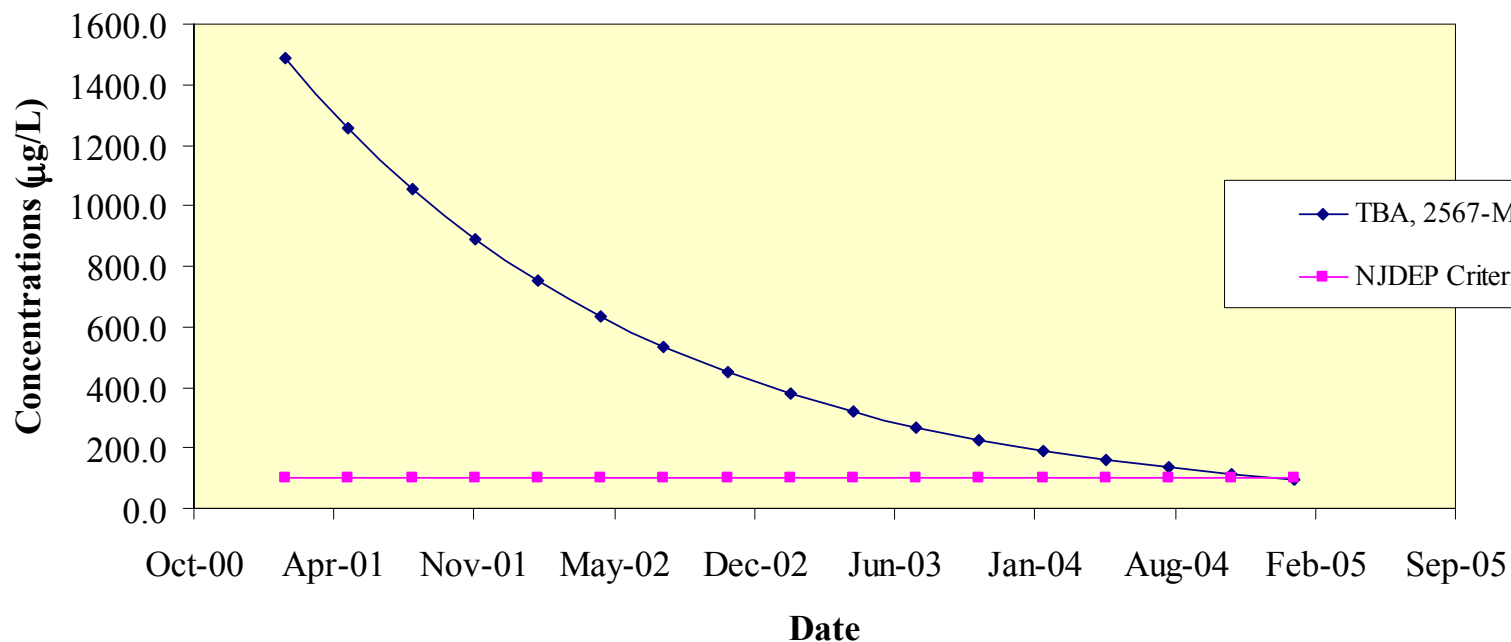


Geologic Cross-Section B-B'
Site-2567
Fort Monmouth, New Jersey

2558 Pearl Buck Road, Suite 1
Bristol, PA 19007
(215) 788-7844

Source: Zapecza, O. 1989. *Hydrogeologic Framework of the New Jersey Coastal Plain*. USGS Professional Paper 1404-B. U.S. Government Printing Office, Washington, DC.

Prediction TBA Concentration at Monitoring Well 2567-MW1

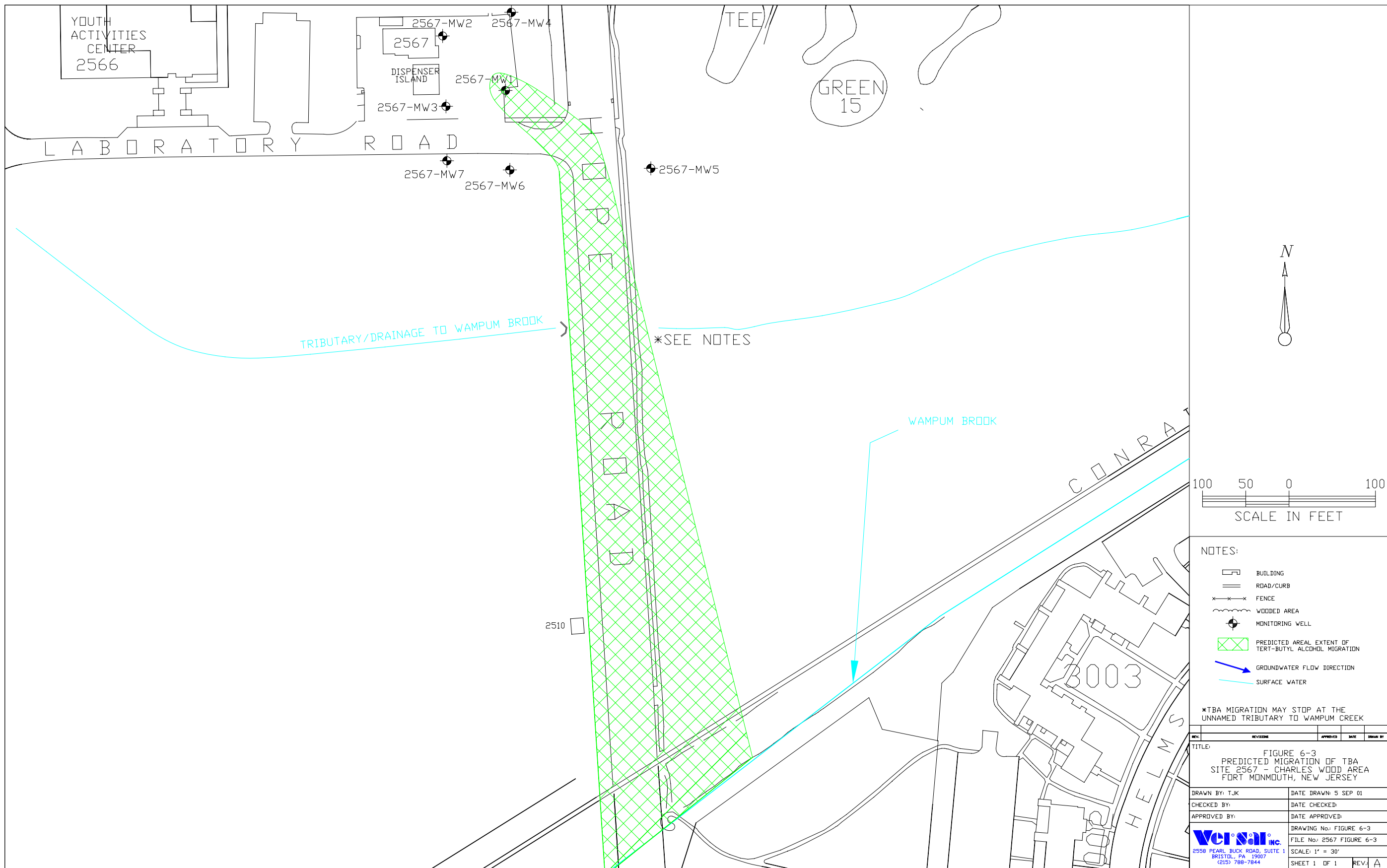


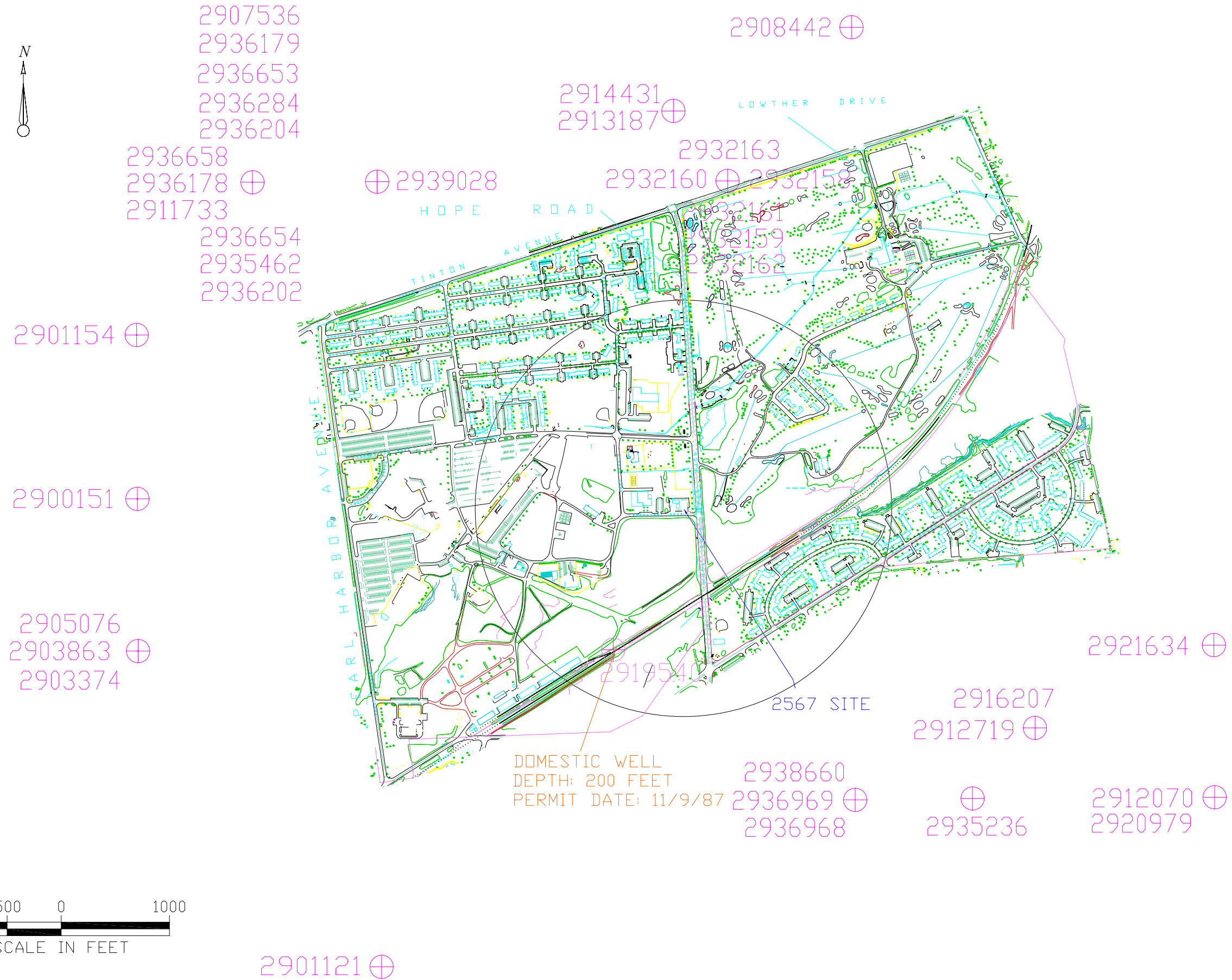
Notes:

- 1) Concentration is shown in micrograms per liter (ug/L), equivalent to parts per billion
- 2) Initial TBA concentration at well 2567-MW1 was considered to be 1488.05 ug/L on February 9, 2001.
- 3) Estimated time for NJDEP compliance is 3.9 years.

FIGURE 6-2

**Predicted TBA Concentration
at Well 2567-MW1
Site 2567
Fort Monmouth, New Jersey**





NOTES:	
⊕	DOMESTIC/IRRIGATION WELL WITH PERMIT NUMBER (LOCATION WITHIN 100 FOOT ACCURACY)
○	CIRCLE PORTRAYS 1800-FOOT DISTANCE FROM SITE. THE WELL SEARCH IDENTIFIED ONE DOMESTIC WELL WITHIN 1800 FEET OF THE 2567 SITE.
TITLE: FIGURE 6-4 DOMESTIC AND IRRIGATION WELLS SITE 2567 - CHARLES WOOD AREA FORT MONMOUTH, NEW JERSEY	
DRAWN BY: TJK/PS	DATE DRAWN: 31 AUGUST 01
CHECKED BY:	DATE CHECKED:
APPROVED BY:	DATE APPROVED:
Versar inc. 2558 PEARL BUCK ROAD SUITE 1 BRISTOL, PA 19007 (215) 788-7844	DRAWING No.: FIG. 6-4
	FILE No.: 2567 FIG. 6-4
	SCALE: 1" = 1000'
	SHEET OF REV: A

APPENDICES

APPENDIX A

**UST Closure and Site Assessment Report for Building 2567, Tanks 33 and 46, Roy
F. Weston, Inc., October 1993**



RARITAN PLAZA I
4TH FLOOR, RARITAN CENTER
EDISON, NJ 08837-3616
908-417-5800 • FAX: 908-417-5801

16 November 1993

Lynne Mitchell
Bureau of Underground Storage Tanks
Division of Responsible Party Site Remediation
New Jersey Department of Environmental
Protection and Energy
CN 028
Trenton, New Jersey 08625-0028

**RE: UNDERGROUND STORAGE TANK CLOSURE AND
SITE INVESTIGATION/ASSESSMENT REPORTS
UST NOS.: 0081515-33 AND 90010-14 (TMS C91-2838)**

Dear Lynne:

Roy F. Weston, Inc., (WESTON®), on behalf of the U.S. Army Fort Monmouth Directorate of Public Works (DPW), is pleased to submit copies of the Underground Storage Tank Closure and Site Investigation/Assessment Reports for USTs associated with Buildings 161 and 2567 at U.S. Army Fort Monmouth. Closure of these USTs was conducted under approval and onsite supervision of Douglas Greenfield of the New Jersey Department of Environmental Protection and Energy Central Bureau of Water and Hazardous Waste Enforcement (NJDEPE-CBWHWE).

A waste oil UST and a #2 fuel oil UST were located immediately adjacent to one another at Building 161. The same situation occurred at Building 2567. Closures of the waste oil USTs and the #2 fuel oil USTs at Buildings 161 and 2567 were conducted simultaneously. Due to the presence of a waste oil UST at these sites, closures were performed under approval by the NJDEPE-CBWHWE. At NJDEPE-CBWHWE's request, we have provided copies of the Closure and Site Assessment/Investigation Reports for Buildings 161 and 2567 for your files. The hazardous waste manifest for the contents of UST No. 0081515-33 is not included in the Closure and Site Assessment Report for Building 2567. DPW is currently attempting to obtain a copy of this manifest. No further action has been requested by the NJDEPE-CBWHWE in reference to USTs associated with Buildings 161 or 2567.

Closure and Site Investigation Reports for waste oil tanks associated with Buildings 750, 1122 and 290 at U. S. Army Fort Monmouth have been submitted to, and are on file at, the NJDEPE-CBWHWE. Closure of these USTs is considered complete and no further action has been requested by the NJDEPE-CBWHWE in reference to closure of these USTs.

2567
11/10/93
476
2838





Lynne Mitchell

2

16 November 1993

Should you have any questions or comments, please contact Charles Appleby of the DPW at (908) 532-6224.

Very truly yours,

ROY F. WESTON, INC.,

Scott Hubbard, C.H.M.M
Project Scientist



RARITAN PLAZA I
4TH FLOOR, RARITAN CENTER
EDISON, NJ 08837-3616
908-417-5800 • FAX: 908-417-5801

5 October 1993

Mr. Doug Greenfield
Case Manager
Central Bureau of Water and
Hazardous Waste Enforcement
New Jersey Department of Environmental
Protection and Energy
CN 407
Trenton, NJ 08625-0407

Work Order No.: 03886-088-001

**RE: UNDERGROUND STORAGE TANK CLOSURE AND
SITE ASSESSMENT REPORT - BUILDING 2567**

Dear Mr. Greenfield:

Roy F. Weston Inc. (WESTON®), on behalf of the U.S. Army, Fort Monmouth, Directorate of Engineering and Housing (DEH), is pleased to submit this Underground Storage Tank Closure and Site Assessment Report for Tanks 33 and 46 at Building 2567. At DEH's request, we have provided one (1) copy of the report for your review.

Following closure, the USTs were transported to Mazza and Sons Inc. for recycling, in compliance with all applicable regulations and laws. The tank reclamation certificates from Mazza and Sons and the hazardous waste manifest for the contents of Tank 33 are not included in this report. These documents are in the possession of DEH and will be supplied to your office when available. The Closure and Site Assessment Reports for the remaining waste oil tanks will be submitted to your office no later than 22 October, 1993.

Should you have any questions or comments, please contact Charles Appleby of the DEH at (908) 532-6224.

Very truly yours,

ROY F. WESTON INC.,

Scott E. Hubbard, C.H.M.M
Project Scientist

cc: C. Appleby, DEH





**UNDERGROUND STORAGE TANK
CLOSURE AND SITE ASSESSMENT
REPORT
BUILDING 2567
TANKS 33 AND 46**

October 1, 1993

W.O. No.: 03886-088-001

Prepared For:

**UNITED STATES ARMY, FORT MONMOUTH NEW JERSEY
DIRECTORATE OF ENGINEERING AND
HOUSING ENVIRONMENTAL OFFICE
BUILDING 167
FORT MONMOUTH, NJ 07703**

Prepared by:

**ROY F. WESTON, INC.
Raritan Plaza I, 4th Floor
Edison, New Jersey 08837**

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EXECUTIVE SUMMARY

On 31 December 1991, two single wall, steel underground storage tanks (USTs) were closed at U.S. Army Fort Monmouth, in Fort Monmouth, New Jersey. The USTs, identified as Tanks 33 and 46, were located adjacent to Building 2567 in the Charles Wood section of Fort Monmouth. Tank 33 was a 1,000-gallon capacity, No.2 fuel oil tank. Tank 46 was a 500-gallon capacity, waste oil tank. The tanks were located immediately adjacent to one another and were closed simultaneously. Fabiano and Son, Inc. performed the tank closures.

Soils surrounding the tanks were screened visually and with air monitoring instruments for evidence of contamination. The tanks were inspected following removal for corrosion holes for indications of historical leakage from the tanks. No holes were noted in the tanks and no potentially contaminated soils were identified surrounding the tanks. It should be noted, however that U.S. Army Directorate of Engineering and Housing Environmental office (DEH) records indicated that Tank 46 was never in use. This was confirmed during closure and inspection of Tank 46.

Following removal of the tanks, eight post-excavation soil samples were collected and analyzed for total petroleum hydrocarbons (TPHC). Those samples which contained a concentration of TPHC exceeding 100 milligrams per kilogram (mg/kg) were also analyzed for base neutral compounds with a forward library search for 15 tentatively identified compounds (BN+15). Only one sample (sample C91-675) contained a concentration (190 mg/kg) of TPHC exceeding 100 mg/kg. All samples contained either non-detectable concentrations of contaminants or concentrations below proposed New Jersey Department of Environmental Protection and Energy (NJDEPE) subsurface cleanup criteria.

This site is currently undergoing a groundwater investigation to address groundwater contamination identified during closure of four(4) gasoline USTs in February 1993 (NJDEPE case #89-12-12-1442). Approximately 1,000 cubic yards of potentially contaminated soils and four(4) groundwater monitoring wells were installed as part of closure of Tanks 42, 43, 44, and 45. The closure of Tanks 33 and 46 are being conducted separately from these tanks.

No further action is proposed at this site in reference to Tanks 33 and 46 since no soils were identified during closure of these tanks with concentrations of contaminants exceeding proposed NJDEPE subsurface cleanup criteria.



SECTION 1.0

UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 Overview:

Two underground storage tanks (USTs), identified as Tanks 33 and 46, were closed at Building 2567 at Fort Monmouth, New Jersey on 31 December 1991. This Underground Storage Tank (UST) Closure and Site Assessment Report was prepared by Roy F. Weston Inc., (WESTON®) to assist the United State Army Directorate of Engineering and Housing (DEH) in complying with the New Jersey Department of Environmental Protection and Energy - Bureau of Underground Storage Tanks (NJDEPE-BUST) regulations. The applicable NJDEPE-BUST regulations at the date of closure were the "Interim Closure Requirements for Underground Storage Tank Systems" (NJAC 7:14B-1 et seq. September 1990). This report presents the results of the DEH's implementation of the UST Decommissioning/Closure Plans submitted to the NJDEPE on 12 July 1991. Tank 33 was a 1,000 gallon capacity No.2 heating oil UST and Tank 46 was a 500-gallon capacity waste oil tank.

All activities associated with the decommissioning of Tanks 33 and 46 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: NJAC 7:14B-1 et seq., NJAC 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEPE-approved Decommissioning/Closure Plans were posted on site for inspection. Fabiano and Sons Inc., the contractors that conducted the decommissioning activities, are registered and certified by the NJDEPE for performing UST closure activities. The UST Decommissioning/Closure Plans and the UST Site Assessment Summary Forms for Tanks 33 and 46 have been included in Appendices A and B, respectively.

Based on an inspection of the USTs, field screening of subsurface soils and analytical results of soil samples collected, DEH concluded that no discharges historically occurred from the USTs. This UST Closure and Site Assessment Report provides a summary of the tank closure activities, including the results of the soil sampling investigation. Conclusions and recommendations are included in the final section of this report.

1.2 Site Description

Building 2567 is located on Hope Road in the Charles Wood section of Fort Monmouth. A site location map is provided in Figure 1-1. Building 2567 is an active gasoline service station. Four additional USTs (identified as Tanks 42-45) containing gasoline were closed at Building 2567 in February 1993 (Closure Approval No.C-92-3355/56). Approximately 1,000 cubic yard of potentially contaminated soils were removed and four groundwater monitoring wells were installed as part of closure of these tanks. The closure of these tanks and subsequent groundwater investigation is being conducted separately (NJDEPE case #89-12-12-1442) from the closure of Tanks 33 and 46.

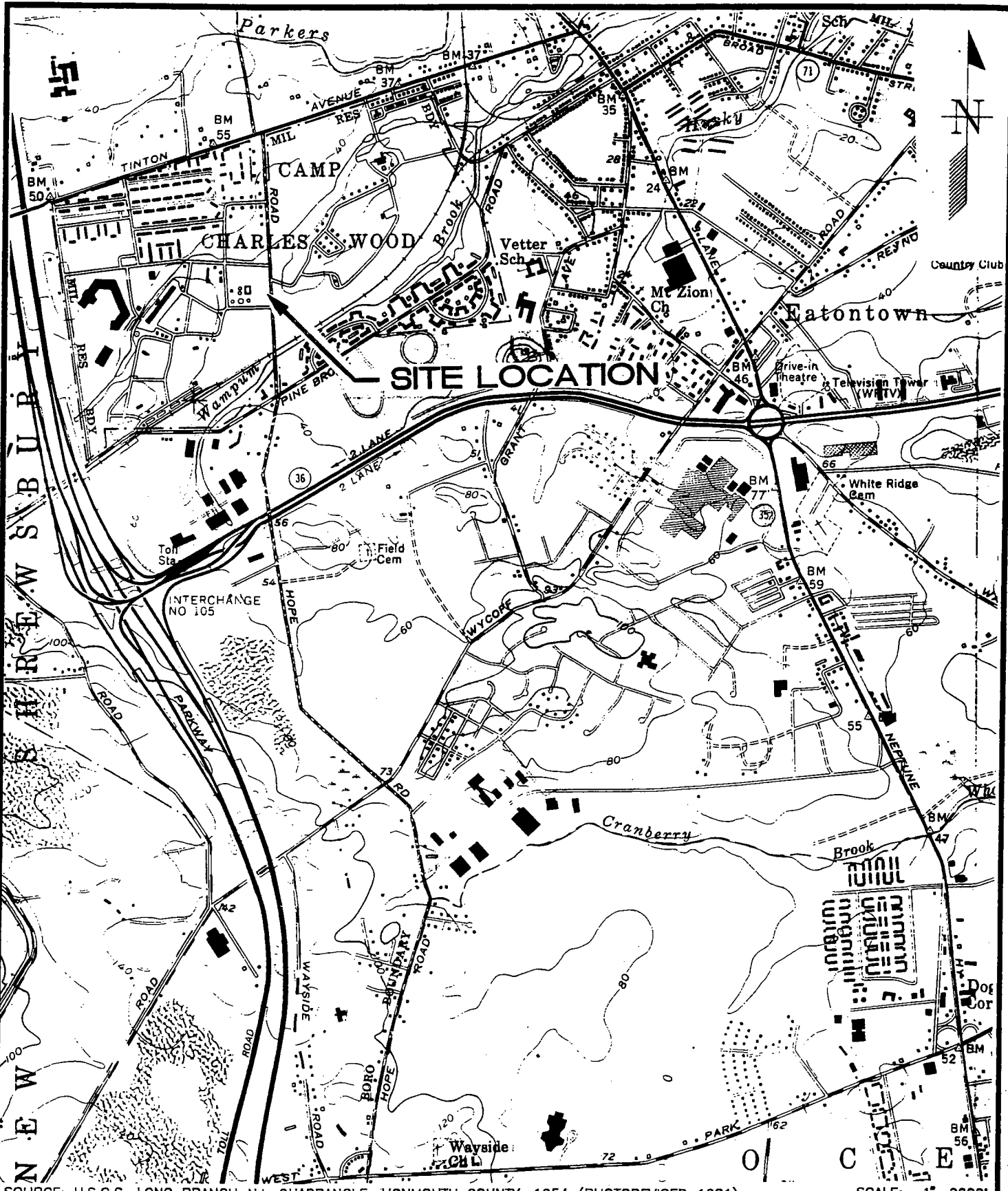
1.3 Health and Safety

Before, during, and after all activities, hazards at the work site which may have posed a threat to the health and safety of all personnel who were involved with, or were affected by, the decommissioning of the UST systems were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing approved equipment. The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

1.4 Removal of Underground Storage Tanks

1.4.1 General Procedures

- All underground obstructions (utilities,... etc.) were marked out by the contractor performing the closure prior to excavation activities.
- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.
- All excavated soils were screened visually and with air monitoring instruments for evidence of contamination. No potentially contaminated soils were identified during closure activities.
- Surface materials (i.e, asphalt, concrete, etc...) were excavated and staged separate from all soils.
- A Sub-Surface Evaluator from the DEH was present during all closure activities.



SOURCE: U.S.G.S. LONG BRANCH NJ, QUADRANGLE, MONMOUTH COUNTY, 1954 (PHOTOREVISED 1981)

SCALE: 1"=2000'

REVISION #: 0000
DATE: 09/27/93
FILE NAME: SITE-LOC.MXD
DRAWN BY: J. ORLEN



PROJECT NAME:
**UNDERGROUND STORAGE TANK CLOSURE
AND SITE ASSESSMENT REPORT
BUILDING 2567**

FORT MONMOUTH, NEW JERSEY

CLIENT NAME:
**U.S. ARMY-DEH
FORT MONMOUTH**

SITE LOCATION MAP

DATE:
09/27/93

FIGURE #:
1-1

1.4.2 Underground Storage Tank Excavation

Soil was excavated to expose the USTs and associated piping. The piping was not removed/disturbed until all free product was drained into the USTs. The USTs were rendered vapor free by purging prior to any cutting or access. After the removal of the associated piping, manways were made in the USTs to allow for the proper cleaning of the USTs. The USTs were completely emptied of all liquids prior to removal of the USTs from the ground. Liquids were transported and disposed of by L and L Oil Co. All of the openings in the tanks were plugged except for one hole (manway).

After each UST was removed from the excavation, it was staged on polyethylene sheeting and examined for corrosion holes. The presence or absence of corrosion holes was documented by the Sub-Surface Evaluator. No corrosion holes were observed upon the inspection of each of the USTs. Soils surrounding the USTs were screened visually and with a Flame Ionization Detector (FID) for evidence of contamination. No evidence of contamination was noted. During removal of Tank 46, the 550 gallon waste oil tank, it was determined that this tank had never been in use. This was consistent with observations made by the NJDEPE representative present during removal of the tanks.

1.5 Underground Storage Tank Transportation and Disposal:

The tanks were transported by Fabiano and Sons and recycled by Mazza and Sons Inc., in compliance with all applicable regulations and laws.

The Subsurface Evaluator labelled each tank prior to transport with the following information:

- site of origin,
- contact person,
- NJDEPE UST Facility ID number,
- name of transporter/contact person, and
- destination site/contact person.

1.6 Management of Excavated Soils:

No potentially contaminated soils were excavated as part of the removal of Tanks 33 and 46. All soils were free of evidence of contamination and were backfilled into the excavation following removal of the USTs.

SECTION 2.0

SITE ASSESSMENT ACTIVITIES

2.1 Overview:

The Site Assessment was managed and carried out by U.S ARMY DEH personnel. All analyses were performed and reported by Environmental Profile Laboratories, a NJDEPE-certified testing laboratory. All sampling was performed under the direct supervision of a NJDEPE Certified Sub-Surface Evaluator according to the methods described in the NJDEPE Field Sampling Procedures Manual (1988). Sampling frequency and parameters analyzed complied with the NJDEPE-BUST document "Interim Closure Requirements for Underground Storage Tank Systems " (September 1990) which was the applicable regulation at the time of the closure. All records of the Site Assessment activities are maintained by Fort Monmouth DEH: Environmental Office.

The following Parties participated in Closure and Site Assessment activities.

- Subsurface Evaluator: DINKERRAI DESAI
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-1475
- Analytical Laboratory: Environmental Profile Laboratories
Contact Person: DANIEL WRIGHT
Phone Number: (908) 244-6278
- NJDEPE Representative: DOUG GREENFIELD
DIVISION OF HAZARDOUS WASTE MANAGEMENT
Phone Number: (609) 584-4200
- Closure Contractor: FABIANO AND SONS.
Contact Person: Mr. Fabiano

2.2 Field Screening/Monitoring

All soils that were excavated as part of the removal of the USTs were screened using a FID, for evidence of contamination. Soils were also visually screened for evidence of contamination (staining, free product, etc.). No evidence of contamination was noted during excavation of soils.

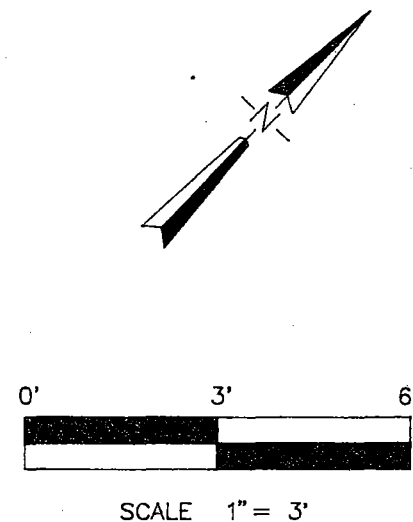
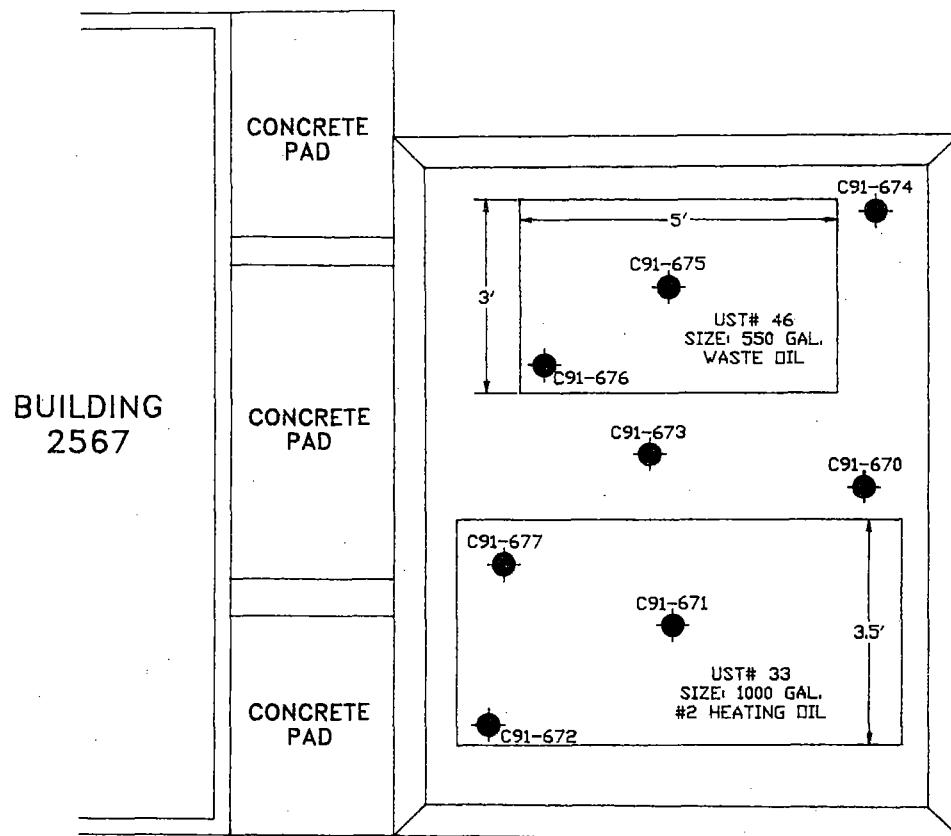
Soils on the sides and base of the excavation were screened with a FID by an individual under the direct supervision of a NJDEPE Certified Sub-Surface Evaluator. No evidence of contamination was noted within soils on the sidewalls or base of the excavation.

2.3 Soil Sampling

Following removal of Tanks 33 and 46, eight post-excavation soil samples were collected in accordance with NJDEPE procedure and the approved closure plan. A summary of sampling activities including parameters analyzed is provided in Table 2-1. Figure 2-1 depicts the location of the post-excavation samples. The samples were typically collected along the base and sidewalls of the excavation using decontaminated stainless steel scoops. Following soil sampling activities, the samples were chilled and delivered to Environmental Profile laboratories located in Toms River, New Jersey.

All samples were analyzed for total petroleum hydrocarbons (TPHC), and in accordance with NJDEPE requirements, samples containing a concentration exceeding 100 milligrams per kilograms (mg/kg) of TPHC were also analyzed for base neutral compounds with a forward library search for fifteen tentatively identified compounds (BN+15). Based on the TPHC analytical results, one sample (C91-675) was analyzed for BN+15.

Analytical parameters for post-excavation samples associated with Tank 46, the 550 gallon waste oil tank, were reduced from a priority pollutant scan plus 40 tentatively identified compounds (PP+40) based on the determination that the tank was never in use. This revised approach was verbally approved by the NJDEPE representative present onsite during closure of Tanks 33 and 46.



C91-670
 ● -- POST-EXCAVATION SAMPLE LOCATION

REVISION #: 0001 DATE: 09/22/93
 FILE NAME: FORT-MONMOUTH DRAWN BY: J. DINEEN



PROJECT NAME:
 UNDERGROUND STORAGE TANK CLOSURE
 AND SITE ASSESSMENT REPORT
 BUILDING 2567
 FORT MONMOUTH, NEW JERSEY
 CLIENT NAME: U.S. ARMY-DEH
 FORT MONMOUTH

POST-EXCAVATION
 SAMPLE LOCATIONS
 UST#'s 33 & 46

DATE:
 09/22/93

FIGURE #:

2-1

TABLE 2-1

**SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
TANK NOS. 33 AND 46
BUILDING NO. 2567
FORT MONMOUTH, NEW JERSEY**

Sample I.D No.	Matrix	Sample Type	Analytical Parameters	Sampling Method
C91-670	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop
C91-671	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop
C91-672	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop
C91-673	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop
C91-674	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop
C91-675	Soil	Post-Excavation	TPHC* BN + 15	Stainless Steel Scoop
C91-676	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop
C91-677	Soil	Post-Excavation	TPHC*	Stainless Steel Scoop

TPHC - Total Petroleum Hydrocarbons. Those samples which contained concentrations of TPHC exceeding 100 mg/kg were also analyzed for BN + 15.

BN + 15 - Base neutral compounds with a forward library search for 15 tentatively identified compounds.

SECTION 3.0

CONCLUSIONS AND RECOMMENDATIONS

3.1 Soil Sampling Results

To evaluate soils conditions following removal of the USTs and associated soils, the post-excavation sample results were compared to proposed NJDEPE subsurface cleanup criteria (NJAC 7:26D and revisions dated 8 March 1993). A summary of the analytical results and applicable subsurface cleanup criteria are provided in Table 3-1. The analytical data package is provided in Appendix C.

TPHC was detected in samples C91-675 and C91-676 at concentrations of 190 mg/kg and 20 mg/kg, respectively. All other samples contained non-detectable concentrations of TPHC. Sample C91-675 contained TPHC at a concentration (190 mg/kg) exceeding 100 mg/kg and as required by NJDEPE, this sample was analyzed for BN+15. Di-n-butylphthalate, butylbenzylphthalate and bis(2-Ethylhexyl) phthalate were detected in sample C91-675; however, at concentrations well below proposed NJDEPE subsurface cleanup criteria. Several tentatively identified base neutral compounds were identified in sample C91-675; however, at concentrations well below proposed NJDEPE subsurface cleanup criteria.

3.2 Conclusions and Recommendations:

DEH successfully removed two USTs at Building 2567 in the Charles Wood section of Fort Monmouth. Based on visual inspection of the USTs and field screening of the soils adjacent to the USTs, it was determined that no discharges had occurred from the USTs. Analytical results of the post-excavation samples confirm that no soils are present with concentrations of contaminants exceeding proposed NJDEPE subsurface cleanup criteria.

No further action is proposed at building 2567 in reference to Tanks 33 and 46.

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS
TANK NOS. 33 AND 46
BUILDING NO. 2567,
FORT MONMOUTH, NEW JERSEY

Sample ID No.		C91-670	C91-671	C91-672	C91-673	NJDEPE Proposed Subsurface Cleanup Criteria
Lab ID No.		7013.1	7013.2	7013.3	7013.4	
Matrix		Soil	Soil	Soil	Soil	
Sample Type		PE	PE	PE	PE	
Analytical Parameter	Units					
TPHC	mg/kg	ND	ND	ND	ND	NC

Sample ID No.		C91-674	C91-675	C91-676	C91-677	NJDEPE Proposed Subsurface Cleanup Criteria
Lab ID No.		7013.5	7013.6	7013.7	7013.8	
Matrix		Soil	Soil	Soil	Soil	
Sample Type		PE	PE	PE	PE	
Analytical Parameter		Units				
TPHC	mg/kg	ND	190	20	ND	NC
Base Neutral Compounds						
Di-n-butylphthalate	mg/kg	NA	1.6	NA	NA	100
Butylbenzylphthalate	mg/kg	NA	.68	NA	NA	100
Bis(2-Ethylhexyl) phthalate	mg/kg	NA	.51	NA	NA	100

TPHC - Total Petroleum Hydrocarbons
PE - Post-Excavation.
ND - Non-Detected.
NC - No cleanup criterion has been proposed for TPHC by NJDEPE; however, the proposed NJDEPE subsurface cleanup criterion for total organic compounds is 10,000 mg/kg.
NA - Not analyzed.
mg/kg - Milligrams per Kilogram

APPENDIX A

UST CLOSURE PLANS

The following UST Closure Plans for Tanks 33 and 46 were submitted by DEH to the NJDEPE in July 1991. Written Closure approvals were not received by DEH for Tanks 33 and 46; however, closure of these tanks proceeded under verbal approval by the NJDEPE Division of Hazardous Waste Management.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION

CN 029, 401 EAST STATE STREET
TRENTON, N.J. 08625-0029

FOR STATE USE ONLY

UST # _____
Date Rec'd _____
CA # _____
Staff _____

UNDERGROUND STORAGE TANK CLOSURE PLAN
APPROVAL APPLICATION

*Under the provisions of the Underground Storage
of Hazardous Substances Act
in accordance with N.J.A.C. 7:14B-9 et seq.*

This application form shall be used by all applicants who plan to close Underground Storage Tank Systems pursuant to N.J.A.C. 7:14B-9 et seq.

INSTRUCTIONS:

- Before completing application form please refer to the attached Application Instruction Sheet.
- Please print legibly or type.
- Fill in all appropriate blanks. This application form requires that additional sheets be attached for some of the information requested. You may call the Bureau of Underground Storage Tanks/Tank Management Section (609/984-3156) for assistance.
- Return one original of this form (including all attachments required) and a copy of the complete Standard Reporting Form (SRF) to the address above. You must sign all forms as required and attach a check for the proper fee (see the fee schedule on Page 3). Make check payable to the Treasurer, State of New Jersey.
- If the subject facility is not registered the Closure Plan will not be approved.
- Please Note: Make sure that all required information on the Standard Reporting Form (SRF) is submitted. The SRF and this Closure Plan Application must be submitted together.

Date of Application 7/12/91

FACILITY REGISTRATION #

0081515 - 33

I. FACILITY NAME AND ADDRESS

U.S. Army Fort Monmouth

DEH Bldg. 167

Fort Monmouth NJ 07703

Telephone No. (908) 532-1475 Dinkerrai Desai

II. THIS CLOSURE PLAN IS FOR:

A. Substance stored in subject tank(s):

1. Petroleum Products

Indicate Type of Product Heating oil #2
(Write out product name; e.g.)

- a. Gasoline, Jet Fuel, or Kerosene
- b. Heating Oil (#2, 4, 6), or Diesel
- c. Waste Oil (Please indicate total storage capacity of waste oil at the facility [including the tank(s) being closed])

n/a gals.

2. Hazardous Substances other than Petroleum Products (Describe)

Indicate Type of Product n/a
(Write out product name; add sheet if necessary.)

B. Type of Activity: (Circle one)

1. Abandonment of Tank(s)

Attach the closure plan for abandonment, as required by N.J.A.C. 7:14B-9.2(b) or 9.3(b), which must contain the following items:

- a. Implementation schedule (3 copies per N.J.A.C. 7:14B-9.2(a)3)
- b. Site assessment plan
- c. Tank decommissioning plan
- d. A site map
- e. Attach all justification for abandonment-in-place as required by N.J.A.C. 7:14-9.1(d). Attach the certification statement (on the back page) for abandonment-in-place, if applicable.

2. Removal of Tank(s)

Attach the closure plan for removal as required by N.J.A.C. 7:14B-9.2(b) or 9.3(b). The following items must be included:

- ☒ a. Implementation schedule (3 copies)
- ☒ b. Site assessment plan
- ☒ c. Tank decommissioning plan
- ☒ d. A site map

3. Temporary Closure

Indicate which situation applies and attach appropriate documentation.

- a. ☐ Temporary closure for 12 months or less is subject to requirements of N.J.A.C. 7:14B-9.1(a).
- b. ☐ Requesting an extension of temporary closure for more than 12 months per N.J.A.C. 7:14B-9.1(b) must perform site assessment and submit results.

4. Change in Service

Attach documentation that the tank system being changed from the storage of a regulated to a non-regulated substance has been emptied and cleaned and that a site assessment has been performed, as required by N.J.A.C. 7:14B-9.1(e).

III. FEE SCHEDULE

Check the activities below that apply, calculate the Total Fee and submit that amount with this application. Make checks payable to **Treasurer, State of New Jersey**. Public schools and religious and charitable institutions are exempt from the fees. The owner or operator shall submit a separate fee for each excavation where an activity occurs.

- | | | |
|--|--------|-----------|
| A. <u>Activities Which Require a Site Assessment</u> | 120.00 | \$ 120.00 |
| 1. Removal or Abandonment without exemption to site assessment requirement | | |
| 2. Change in service from a regulated substance to a non-regulated substance | | |
| 3. Extension of period of Temporary Closure | | |
| B. <u>Activities Not Requiring a Site Assessment</u> | _____ | \$ 80.00 |
| 1. Removal or abandonment with valid exemption | | |
| C. <u>Additional Activities</u> | | |
| 1. Change in service from one regulated substance to another regulated substance | | NO FEE |

APPLICATION REVIEW FEE (activities in A, B, C) + \$ 50.00

TOTAL FEE DUE \$ 170.00

IV. THE BUREAU OF UNDERGROUND STORAGE TANKS WILL REVIEW THE CLOSURE PLAN FOR COMPLETENESS AND APPROPRIATENESS AS SPECIFIED IN SUBCHAPTER 9 OF THE UST REGULATIONS. PLAN APPROVAL WILL INDICATE THAT THE OWNER OR OPERATOR MAY PROCEED WITH THE CLOSURE. FINAL APPROVAL OF THE CLOSURE IS NOT IMPLIED. ALL APPROPRIATE AND APPLICABLE PERMITS, LICENSES AND CERTIFICATES REQUIRED FOR ANY OF THE ABOVE ACTIVITIES FROM ANY LOCAL, STATE AND/OR FEDERAL AGENCIES MUST BE OBTAINED SEPARATELY FROM THIS APPLICATION.

THE SITE ASSESSMENT SAMPLING AND ANALYTICAL REQUIREMENTS WILL BE SENT WITH THE APPROVAL TO PROCEED.

NOTE: Notice of Approval to Proceed or Disapproval will be mailed to the facility address unless some other address is specified here.

SIGNATURE OF CONTACT PERSON

This application form must be signed by a contact person of the owner or operator of the subject facility. The contact person should have overall knowledge of tank decommissioning procedures and the site assessment requirements applicable to the tank closure which is the subject of this application.

NAME (Print or Type) Dinkerrai Desai SIGNATURE _____
TITLE DEH Environmental Coordinator DATE 7/12/91

III. FEE SCHEDULE

Check the activities below that apply, calculate the Total Fee and submit that amount with this application. Make checks payable to Treasurer, State of New Jersey. Public schools and religious and charitable institutions are exempt from the fees. The owner or operator shall submit a separate fee for each excavation where an activity occurs.

- | | | |
|--|---------------|-----------|
| A. <u>Activities Which Require a Site Assessment</u> | <u>120.00</u> | \$ 120.00 |
| 1. Removal or Abandonment without exemption to site assessment requirement | | |
| 2. Change in service from a regulated substance to a non-regulated substance | | |
| 3. Extension of period of Temporary Closure | | |
| B. <u>Activities Not Requiring a Site Assessment</u> | _____ | \$ 80.00 |
| 1. Removal or abandonment with valid exemption | | |
| C. <u>Additional Activities</u> | | |
| 1. Change in service from one regulated substance to another regulated substance | | NO FEE |

APPLICATION REVIEW FEE (activities in A, B, C) + \$ 50.00

TOTAL FEE DUE

\$ ~~170.00~~ N/A

IV. THE BUREAU OF UNDERGROUND STORAGE TANKS WILL REVIEW THE CLOSURE PLAN FOR COMPLETENESS AND APPROPRIATENESS AS SPECIFIED IN SUBCHAPTER 9 OF THE UST REGULATIONS. PLAN APPROVAL WILL INDICATE THAT THE OWNER OR OPERATOR MAY PROCEED WITH THE CLOSURE. FINAL APPROVAL OF THE CLOSURE IS NOT IMPLIED. ALL APPROPRIATE AND APPLICABLE PERMITS, LICENSES AND CERTIFICATES REQUIRED FOR ANY OF THE ABOVE ACTIVITIES FROM ANY LOCAL, STATE AND/OR FEDERAL AGENCIES MUST BE OBTAINED SEPARATELY FROM THIS APPLICATION.

THE SITE ASSESSMENT SAMPLING AND ANALYTICAL REQUIREMENTS WILL BE SENT WITH THE APPROVAL TO PROCEED.

NOTE: Notice of Approval to Proceed or Disapproval will be mailed to the facility address unless some other address is specified here.

SIGNATURE OF CONTACT PERSON

This application form must be signed by a contact person of the owner or operator of the subject facility. The contact person should have overall knowledge of tank decommissioning procedures and the site assessment requirements applicable to the tank closure which is the subject of this application.

NAME (Print or Type) Dinkerrai Desai

SIGNATURE _____

TITLE DEH Environmental Coordinator

DATE 7/10/91

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 7/12/91

NJDEP UST REG #: 0081515-46
Page 1 of 3

**Underground Storage Tank (UST)
Decommissioning / Closure Plan**

A. General Requirements:

All activities associated with the decommissioning of any underground storage tank (UST) shall comply with all applicable Federal, State and Local laws and ordinances. These laws include but are not limited to: NJAC 7:14B et seq., 5:23 et seq. and OSHA 1910.146, 1910.120. All permits including but not limited to this document, the NJDEP Closure Plan Approval Package, etc..., shall be posted on site for inspection. The contractor conducting the decommissioning activities shall be registered by the NJDEP for performing said activities.

B. Safety and Health:

Before, during, and after all activities, the work site shall be made free of all hazards which may pose a threat to the health and safety of all personnel who are involved with, or are affected by, the decommissioning of the UST. All areas which pose, or may be suspected of posing, a vapor hazard shall be monitored by a qualified individual utilizing approved equipment. This individual will ascertain if the area is properly vented to render the area safe, as defined by OSHA.

C. UST Excavation:

1. All underground obstructions (utilities,... etc.) shall be marked out by the contractor performing the excavation.
2. All activities shall be carried out with the greatest regard to safety and health and the safeguarding of the environment.
3. All excavated soils will be evaluated as to the possibility of contamination. Soils suspected to be contaminated with product shall be staged on poly-sheeting separate from soils not suspected to be contaminated (see section E. Excavated Soils Management).
4. Surface materials (ie. asphalt, concrete, ect...) shall be excavated and staged separate from all soils.
5. Soil will be excavated to expose the UST and associated piping. The piping shall not be removed / disturbed until all free product is drained into the UST. The UST will be rendered vapor free prior to any cutting or access. After the removal of the associated piping, a manway will be made in the UST to allow for the proper cleaning of the UST.

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SELF-M-EH
Fort Monmouth, NJ 07703

Date: 7/12/91

NJDEP UST REG #: 0081515 - 46

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6. After the UST is removed from the ground, it will be staged on poly-sheeting and examined for corrosion holes. The presence or absence of corrosion holes will be documented by the contractor. If corrosion holes are observed, or if upon inspection of the excavation site evidence of a discharge to the environment, the NJDEP hotline shall be notified.

7. In the event of a discharge to the environment, additional soils will be excavated. Site assessment activities will determine to what depth the contractor will excavate.

8. After completion of the Site Assessment activities, the excavation will be lined with poly-sheeting and backfilled to grade with noncontaminated soils from the site and additional certified clean fill provided by the contractor.

D. UST Transport / Disposal:

1. The tank will be transported and disposed / recycled in compliance with all applicable regulations and laws.

2. The contractor shall label the tank with the following information:

- a. site of origin
- b. generator / contact person
- c. NJDEP UST ID number
- d. product previously stored
- e. name of transporter / contact person
- f. destination site / contact person
- g. other info. as required

3. The contractor shall provide Fort Monmouth with sufficient documentation certifying that transport / disposal (recycling) of the tank was completed according to all applicable Federal and State regulations.

E. Excavated Soils Management:

1. All excavated soils suspected to be contaminated will be transported, by the contractor, to a designated staging area. The designated area will contain the soils as well as manage all stormwater runoff.

2. All soils stored in the designated staging area will be maintained in piles no larger than 100 cubic yards each. Each pile will be lined and covered with poly-sheeting and weighted to ensure containment.

3. Each soil pile will be sampled and analyzed for waste classification as outlined in the NJDEP document titled "Management of Excavated Soils" dated August 17, 1990.

U.S. Army
DEH Bldg. 167
SELFME-EH
Fort Monmouth, NJ 07703

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4. All soils categorized as Hazardous waste or non-hazardous waste will be managed as such, in accordance with N.J.A.C. 7:26-1 et seq..
5. All soils that contain levels of contaminants below the Category 3 soil limits will be used in accordance with Federal and State requirements.

F. Changes / Authorizations:

1. All deviations in activities related to the closure of a UST as outlined in this document shall require prior authorization from the NJDEP-DWR-BUST.

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

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NJDEP UST REG #: 6081515-46

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UNDERGROUND STORAGE TANK (UST)
SITE ASSESSMENT PLAN

A. General:

This site specific assessment plan will be managed and carried out by U.S. Army DEH and Serv-Air Inc. personnel. All analyses will be performed and reported by NJDEP certified testing laboratories. All monitoring wells will be installed by NJDEP licensed well drillers. All sampling will be performed according to methods described in the NJDEP Field Sampling Procedures Manual. All records of the Site Assessment will be maintained by DEH and submitted to the NJDEP-DWR-BUST in accordance with N.J.A.C. 7:14B-9.2 and 9.3.

PHASE I
UST Decommissioning

A. Initial Soil Excavation:

1. Soil will be excavated from the UST site and screened utilizing a Photo Ionization Detector (PID) and/or a Flame Ionization Detector (FID).
2. All soils suspected to be contaminated will be treated in accordance with the UST Decommissioning Plan.

B. Continued Excavation:

1. Excavation of suspect contaminated soil will continue until one of the following situations is encountered:
 - a. groundwater
 - b. excavated soils no longer exhibit characteristics of contamination
 - c. excavation equipment can no longer remove soils due to depth or other restrictive cause.

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[illegible]

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DEH Bldg. 167
SELPM-EH
Port Monmouth, NJ 07703

Date: 7/12/91
NJDEP UST REG #: 0081515 - 46

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B. Soil samples will be collected from the Pipe excavation and analyzed according to the following schedule:

TANK	LENGTH OF PIPE	PRODUCT	BN +15 (If TPHC >100)	VOA +15 Lead, Xylene (If TPHC >100)	PP+15	TPHC
#46	<15	WASTE OIL	N/A	N/A	N/A	N/A

- C. All samples will be taken in the native soil below the bedding material. The sample locations should be along the mid-lines of the tank outline except for at least two of the samples which should be taken within one foot of each of the two highest field survey readings. All of the soil samples should be discrete samples taken within a 6" vertical interval. All samples will be collected by utilizing laboratory decontaminated stainless steel trowels dedicated to each sample location.
- D. The excavation will remain open until laboratory results determine all TPHC samples are less than 100 ppm. If levels greater than 100 ppm are reported, further excavation and resampling may be requested for those specific areas. If further excavation is not possible, additional required analyses will be performed and the excavation lined with poly-sheeting and filled to grade with certified clean fill.

U.S. Army
DEH Bldg. 167
SELFME-EH
Fort Monmouth, NJ 07703

Date: 7/12/91
NJDEP UST REG #: 0081515 - 46

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PHASE IV
Groundwater Monitoring

A. Monitoring wells will be installed within the UST field at all UST locations where the tank(s) being closed stored gasoline, kerosene, jet fuel and/or site specific factors indicate a known or potential impact of soil contamination exists.

B. Groundwater monitoring wells will be installed by a New Jersey licensed Well Driller in accordance with N.J.S.A 58:4A-4.1 et seq..

C. All monitoring wells will be sampled as described in the NJDEP Field Sampling Procedures Manual, 1988.

D. All monitoring wells will be analyzed in accordance with the following table:

TANK	PRODUCT	MONITORING WELL(S)	(A) EPA Method 624	(B) EPA Method 625
			624	625
46	Waste oil	Not Required	N/A	N/A

Note (A): Sample must be analyzed by EPA Method 624 + 15 (GC/MS plus identification of non-targeted compounds) modified to include calibration for xylenes, methyl tertiary butyl ether (MTBE), and tertiary butyl alcohol (TBA)

Note (B): Sample must be analyzed by EPA Method 624 + 15 (GC/MS plus identification of non-targeted compounds) modified to include calibration for xylenes; AND EPA Method 625 + 15 (base/neutral extractable extractable organics).

C. All monitoring well sampling will be conducted according to methods described in the NJDEP Field Sampling Procedures Manual February 1988

D. All laboratory analyses will be performed by NJDEP certified Laboratories using approved methods and following all Quality Control/Assurance procedures.

**Administrative Check List
Underground Storage Tank
Closure**

Submission and/or Activity	Completed Yes No	Submitted (NJDEP) Yes No
UST Registration	YES	YES
Site Investigation (Preliminary)		
☒ Standard Reporting Form (Closure)	YES	
Closure Plan Approval Application	YES	
Fees (\$ 500) Blanket DTHW	YES	
Implementation Schedule (3 copies)	YES	
Site Assessment Plan	YES	
Decommissioning Plan	YES	
Site Map	YES	
Certificate For Abandonment-In-Place	N/A	
UST Site Assessment Summary		
Analytical Results (Soil)		
Analytical Results (M-Well Two Rounds)		
Chain of Custody		
Laboratory Authentication Statement		



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Water Resources
CN-029
Trenton, New Jersey 08625



UST # 0081515

	YES	NO
CK. IN	☐	☐
AMT.	☐	☐
AUTH	☐	☐
SP. ROUTE	☐	☐
SITE PLAN	☐	☐
SIGN	☐	☐

COMCODE

UNDERGROUND STORAGE TANK REGISTRATION QUESTIONNAIRE

Bureau of Underground Storage Tanks
Registration Section
1-800-722-TANK

COMPLIANCE WITH THIS REGISTRATION WILL MEET ALL REQUIREMENTS OF STATE LAW, P.L. 1986, c. 102, THE
UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES ACT, N.J.S.A. 58:10A-21. 4/1

General Facility Information

- Facility name: _____
- Facility location: _____
NUMBER AND STREET
CITY OR MUNICIPALITY
COUNTY STATE ZIP CODE
- Owner's mailing address: _____
NUMBER AND STREET
CITY OR MUNICIPALITY
COUNTY STATE ZIP CODE
- Owner's name: _____
- Contact person (Facility Operator) _____
- Contact telephone number: _____
AREA CODE EXCHANGE NUMBER
- Total number of facility underground storage tanks _____
(Complete Questions 12 thru 33 for each tank)
- Total facility underground storage tank capacity (gallons) _____
- Status of owner: (mark one) A. ☐ CURRENT B. ☐ FORMER
- Type of owner: (mark one) A. ☐ STATE OR LOCAL GOVERNMENT B. ☐ PRIVATE OR CORPORATE C. ☐ OWNERSHIP UNCERTAIN D. ☐ FEDERAL GOVT. (GSA FACILITY I.D. NUMBER)
- Two copies of a site plan are submitted with this registration. A. ☐ YES B. ☐ NO

Submit two (2) copies of SITE PLAN showing facility or property boundary, buildings and the location of ALL underground storage tanks. EITHER an existing engineering site plan, if available, OR a neat and legible hand-drawn sketch of the site may be submitted. In either case the site plan or sketch MUST show the location and distances that tanks, buildings, and dispensers are from the facility's property boundary. Include all tanks that are operating or existing, (E); abandoned, (A); or out of service, (C). Each underground tank on the site plan or sketch shall be numbered in accordance with the instructions for question 12. The number assigned to a tank on the site plan or sketch MUST match and be identical to the tank identification number assigned to that tank on this form. INCLUDE FACILITY NAME, OWNER'S NAME, FACILITY ADDRESS AND TELEPHONE NUMBER ON ALL SITE PLANS.

27. Tank Status (MARK ONE)

Tank LD. No.	TANK NO. 1110	TANK NO. 1111	TANK NO. 1112	TANK NO. 1113	TANK NO. 1114
A. Operational	☐	☒	☒	☒	☒
(*) B. Temporarily out of service (Less than 90 days)	☐	☐	☐	☐	☐
(*) C. Extended out of service (90 days to 2 years)	☐	☐	☐	☐	☐
D. Long term out of service (Greater than 2 years)	☐	☐	☐	☐	☐
E. Abandoned, in place	☐	☐	☐	☐	☐
F. Abandoned, in place, filled only	☐	☐	☐	☐	☐
G. Abandoned, in place, sealed only	☐	☐	☐	☐	☐
H. Abandoned, in place, filled and sealed	☐	☐	☐	☐	☐
(*) J. Seasonal (Answer only for motor fuel users)	☐	☐	☐	☐	☐
K. Prior retrofitting work, Please Specify					
L. Other, Please Specify	Removed 7/83				
28. Spill recovery system on-site (MARK ONE)					
A. Yes	☐	☒	☒	☒	☐
B. No	☒	☐	☐	☐	☒
29. Overfill protection (tank only) (MARK ONE)					
A. Yes	☐	☒	☒	☒	☐
B. No	☒	☐	☐	☐	☒
30. Emergency shut-off mechanisms (dispensers) (MARK ONE)					
A. Yes	☐	☒	☒	☒	☐
B. No	☒	☐	☐	☐	☒

* If boxes 27 E, F, G or H above have been answered - answer questions 31, 32 and 33 below.

31. Substance last used in tank (MARK ONE)					
A. Leaded gasoline	☐	☐	☐	☐	☐
B. Unleaded gasoline	☐	☐	☐	☐	☐
C. Alcohol enriched gasoline	☐	☐	☐	☐	☐
D. Light diesel fuel (No. 1-D)	☐	☐	☐	☐	☐
E. Medium diesel fuel (No. 2-D)	☐	☐	☐	☐	☐
F. Waste oil	☐	☐	☐	☐	☐
G. Kerosene (No. 1)	☐	☐	☐	☐	☐
H. Home heating oil (No. 2)	☐	☐	☐	☐	☐
I. Heating oil (No. 4)	☐	☐	☐	☐	☐
J. Heavy heating oil (No. 6)	☐	☐	☐	☐	☐
K. Aviation fuel	☐	☐	☐	☐	☐
L. Hazardous substances (per Fact Sheet)	☐	☐	☐	☐	☐
M. Other, Please Specify					
32. Estimated date last used (month/year)	Mo. Yr.	Mo. Yr.	Mo. Yr.	Mo. Yr.	Mo. Yr.
33. Estimated quantity (gallons) left in tank					

OWNER OR OWNER'S AGENT CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

SIGNATURE

(PRINT OR TYPE NAME)

(TITLE)

ALL underground tanks, including those taken out of operation, (UNLESS THE TANK WAS REMOVED FROM THE GROUND) must be included in this registration. All in-ground tanks shall be reported as underground tanks on this questionnaire regardless of their current status: Existing, E; Abandoned, A; or out of service, C.

SPECIFIC TANK INFORMATION

	TANK NO.	TANK NO.	TANK NO.	TANK NO.	TANK NO.
12. Tank Identification Number	402	47	47	49	50
13. CASRN Number (Hazardous Substances Only)					
14. Tank Age (Years)	18	1	1	1	1
15. Tank Size (gallons)	550	1,000.00	1,400.00	4,000	2,000
16. Tank Contents (MARK ONE X)					
A. Leaded gasoline	☐	☐	☐	☐	☐
B. Unleaded gasoline	☐	☐	☐	☐	☐
C. Alcohol enriched gasoline	☐	☐	☐	☐	☐
D. Light diesel fuel (No. 1-D)	☐	☐	☐	☐	☐
E. Medium diesel fuel (No. 2-D)	☐	☐	☐	☐	☐
F. Waste oil	☒	☒	☐	☐	☐
G. Kerosene (No. 1)	☐	☐	☐	☐	☐
H. Home heating oil (No. 2)	☐	☐	☐	☐	☐
J. Heating oil (No. 4)	☐	☐	☐	☐	☐
K. Heavy heating oil (No. 6)	☐	☐	☐	☐	☐
L. Aviation fuel	☐	☐	☐	☐	☐
M. Hazardous substances (per Fact Sheet)	☐	☐	☒	☒	☒
N. Other, Please Specify					
17. Tank and Piping Construction (MARK ALL THAT APPLY X)					
A. Bare steel	☒	☒	☐	☐	☐
B. Carbon steel	☐	☐	☐	☐	☐
C. Stainless steel	☐	☐	☐	☐	☐
D. Aluminum	☐	☐	☐	☐	☐
E. Polyvinyl chloride	☐	☐	☐	☐	☐
F. Concrete	☐	☐	☐	☐	☐
G. Bronze	☐	☐	☐	☐	☐
H. Earthen walls	☐	☐	☐	☐	☐
J. Fiberglass reinforced plastic	☐	☐	☒	☒	☒
K. Fiberglass-clad steel	☐	☐	☐	☐	☐
L. Painted/asphalt steel	☐	☐	☐	☐	☐
M. Vaulted	☐	☐	☐	☐	☐
N. Composite	☐	☐	☐	☐	☐
P. Iron (cast or ductile)	☐	☐	☐	☐	☐
R. Non-metallic	☐	☐	☐	☐	☐
S. Other, Please Specify					
18. Tank and Piping Structure (MARK ALL THAT APPLY X)					
A. Single wall	☒	☒	☐	☐	☐
B. Double wall	☐	☐	☒	☒	☒
C. Manway in tank	☐	☒	☒	☒	☐
19. Internal Tank and Piping Lining (MARK ALL THAT APPLY X)					
A. Rubber	☐	☐	☐	☐	☐
B. Epoxy	☐	☐	☐	☐	☐
C. Alklyd	☐	☐	☐	☐	☐
D. Phenolic	☐	☐	☐	☐	☐
E. Glass	☐	☐	☐	☐	☐
F. Clay	☐	☐	☐	☐	☐
G. None	☒	☒	☒	☒	☒
H. Other, Please Specify					

UST NO. _____

Tank I.D. No. TANK NO. TANK NO. TANK NO. TANK NO.

 0096 0097 0098 0099 0100

[illegible]



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
Trenton, N.J. 08625-0029

ATTN: BUST Program
(609) 984-3156

For State Use Only

Date Rec'd. _____
Auth. _____
Routing _____
UST NO. _____

STANDARD REPORTING FORM
for reporting activities at an UST facility:

- | | |
|--|---|
| ☐ General Facility Information Changes | ☐ Sale or Transfer |
| ☒ Closure (Abandonment or Removal) | ☐ Substantial Modification |
| ☐ Temporary Closure | ☐ Financial Responsibility |
| ☐ Change in Service | ☐ Address Change Only |

Check **ONLY** One Type of Activity – Complete Form For That Activity

(More than one tank can be listed per activity)

***** NOTE *** ALL NEW tank installations at existing registered facilities must submit a Registration Questionnaire for the new tanks.**

Answer questions 1 through 5 and others as applicable.

1. Company name and address (as it appears on registration questionnaire):
U.S. Army Fort Monmouth
DEH Bldg. #167
Fort Monmouth NJ 07703
ATTN: Dinkerrai Desai
2. Facility name and location (if different from above):
Bldg. 2567
3. Contact person for this activity:
Dinkerrai Desai
Telephone Number: (908) 532-1475
4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire:
46
5. Registration Number (if known):
UST - 0081515
6. For GENERAL FACILITY INFORMATION changes (address, telephone, contact person, etc. – supply NEW information only):
 - a. Facility name: _____
 - b. Facility location: _____
 - c. Owner's mailing address: _____

NJ _____
 - d. Block: _____ Lot: _____
 - e. Contact person (facility operator): _____
 - f. Contact telephone number: (_____) _____ - _____
 - g. Other (Specify): _____

(OVER)

7. For CLOSURE (abandonment or removal - check all that apply):

a. ☐ Abandonment

Attach the necessary implementation schedule (3 copies) and all documentation needed for abandonment per N.J.A.C. 7:14B-9.1 (d).

b. ☒ Removal

Attach the necessary implementation schedule (3 copies).

8. For CHANGES IN HAZARDOUS SUBSTANCES STORED (check all that apply):

a. ☐ Temporary Closure (12 month maximum time - see N.J.A.C. 7:14B-9.1(b)). Remove all hazardous substances; leave tank in place.

b. ☐ Change in service from a regulated substance to a non-regulated substance. Tank must be cleaned and site assessment performed per N.J.A.C. 7:14B-9.1(e).

c. ☐ Changes in service from one regulated hazardous substance to another regulated hazardous substance.

Tank No. _____	Old _____	New _____
Tank No. _____	Old _____	New _____
Tank No. _____	Old _____	New _____

(Attach additional sheets if more space is needed)

9. For TRANSFER OF OWNERSHIP:

a. New Owner (operator) _____

b. New Facility Name _____

_____ NJ _____

_____ County _____

c. Closing Attorney _____ Tele: (____) _____ - _____

10. For SUBSTANTIAL MODIFICATIONS (to include any retrofitted activity - e.g. the addition of spill/overfill protection monitoring systems, cathodic protection, etc.):

a. Type of Modification _____

b. * NOTE * Substantial modifications require a permit under N.J.A.C. 7:14B-10.

11. For changes in FINANCIAL RESPONSIBILITY to (check appropriate changes and attach copies of new information):

a. Policy Type: ☐

d. Company/Carrier: ☐

b. Policy Number: ☐

e. Expiration Date: ☐

c. Other: ☐

(Specify)

NOTE: ALL appropriate and applicable permits, licenses and certificates required by the above activity(ies) from any local, state and/or federal agencies must be obtained separately from this notification.

CERTIFICATION

This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for that facility (N.J.A.C. 7:14B-2.3 (a) 1).

"I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information, including fines and/or imprisonment."

Signature: _____

Name (print or type): DinKerai Desai

Title: Environmental Coordinator Date: 7/12/91



State of New Jersey
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF WATER RESOURCES
 CN 029
 Trenton, N.J. 08625-0029
 ATTN: BUST Program
 (609) 984-3156

For State Use Only

Date Rec'd. _____
 Auth. _____
 Routing _____
 UST NO. _____

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 for reporting activities at an UST facility:

- | | |
|---|---|
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☐ Address Change Only |
|---|---|

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(More than one tank can be listed per activity)

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 DEH Bldg. #167
 Fort Monmouth NJ 07703
 ATTN: Dinkerrai Desai
2. Facility name and location (if different from above):
 Bldg. 2567
3. Contact person for this activity:
 Dinkerrai Desai
 Telephone Number: (908) 532-1475
4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire:
 33
5. Registration Number (if known):
 UST - 0081515
6. For GENERAL FACILITY INFORMATION changes (address, telephone, contact person, etc. – supply NEW information only):
 - a. Facility name: _____
 - b. Facility location: _____
 - c. Owner's mailing address: _____

 _____ NJ _____
 - d. Block: _____ Lot: _____
 - e. Contact person (facility operator): _____
 - f. Contact telephone number: (_____) _____ - _____
 - g. Other (Specify): _____

7. For CLOSURE (abandonment or removal – check all that apply):

- a. ☐ Abandonment

Attach the necessary implementation schedule (3 copies) and all documentation needed for abandonment per N.J.A.C. 7:14B-9.1 (d).

- b. ☒ Removal

Attach the necessary implementation schedule (3 copies).

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- a. ☐ Temporary Closure (12 month maximum time – see N.J.A.C. 7:14B-9.1(b)). Remove all hazardous substances; leave tank in place.
- b. ☐ Change in service from a regulated substance to a non-regulated substance. Tank must be cleaned and site assessment performed per N.J.A.C. 7:14B-9.1(e).
- c. ☐ Changes in service from one regulated hazardous substance to another regulated hazardous substance.

Tank No. _____	Old _____	New _____
Tank No. _____	Old _____	New _____
Tank No. _____	Old _____	New _____

(Attach additional sheets if more space is needed)

9. For TRANSFER OF OWNERSHIP:

- a. New Owner (operator) _____

- b. New Facility Name _____

_____ NJ _____

_____ County _____

- c. Closing Attorney _____

Tele: (____) _____ - _____

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11. For changes in FINANCIAL RESPONSIBILITY to (check appropriate changes and attach copies of new information)

- a. Policy Type: ☐

- d. Company/Carrier: ☐

- b. Policy Number: ☐

- e. Expiration Date: ☐

- c. Other: ☐

(Specify)

NOTE: ALL appropriate and applicable permits, licenses and certificates required by the above activity(ies) from an local, state and/or federal agencies must be obtained separately from this notification.

CERTIFICATION

This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for that facility (N.J.A.C. 7:14B-2.3 (a) 1).

"I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information, including fines and/or imprisonment."

Signature: _____

Name (print or type): Dinkerrai Desai

Title: Environmental Coordinator

Date: 7/12/91

Underground Storage Tank
Removal / Abandonment
Implementation Schedule

Date: 7/12/91

Facility Name: U.S. Army, Fort Monmouth

Facility Location: Bldg. 2567
Fort Monmouth, Monmouth County NJ 07703

Owners Mailing Address: DEH Bldg. #167
Fort Monmouth, NJ 07703

Owners Name: U.S. Army

Contact Person: Dinkerrai Desai
Phone Number: (908) 532-1475

UST Number: 0081515

Tank ID Number(s)	Product Stored (Oil, Gas, etc.)	Tank Capacity (Gallons)	Site Assessment Required	Monitoring Well Required
<u>33</u>	<u>#2 oil</u>	<u>1000</u>	<u>yes</u>	<u>no</u>

Schedule

Activity	Start Date	Completion
Removal	<u>10/9/91</u>	<u>10/11/91</u>
Site Assessment	<u>10/11/91</u>	
Monitoring Well Installation	<u>n/a</u>	
Site Assessment Analytical Results	<u>11/15/91</u>	
Monitoring Well Analytical Results	<u>n/a</u>	
UST Site Assessment Summary		<u>1/9/92</u>

**Underground Storage Tank
Removal / Abandonment
Implementation Schedule**

Date: 7/12/91

Facility Name: U.S. Army, Fort Monmouth

Facility Location: Bldg. 2567
Fort Monmouth, Monmouth County NJ 07703

Owners Mailing Address: DEH Bldg. #167
Fort Monmouth, NJ 07703

Owners Name: U.S. Army

Contact Person: Dinkerrai Desai
Phone Number: (908) 532-1475

UST Number: 0081515

Tank ID Number(s)	Product Stored (Oil, Gas, etc.)	Tank Capacity (Gallons)	Site Assessment Required	Monitoring Well Required
<u>33</u>	<u>#2 oil</u>	<u>1000</u>	<u>yes</u>	<u>no</u>

Schedule

Activity	Start Date	Completion
Removal	<u>10/9/91</u>	<u>10/11/91</u>
Site Assessment	<u>10/11/91</u>	
Monitoring Well Installation	<u>n/a</u>	
Site Assessment Analytical Results	<u>11/15/91</u>	
Monitoring Well Analytical Results	<u>n/a</u>	
UST Site Assessment Summary		<u>1/9/92</u>

Underground Storage Tank
Removal / Abandonment
Implementation Schedule

Date: 7/12/91

Facility Name: U.S. Army, Fort Monmouth

Facility Location: Bldg. 2567
Fort Monmouth, Monmouth County NJ 07703

Owners Mailing Address: DEH Bldg. #167
Fort Monmouth, NJ 07703

Owners Name: U.S. Army

Contact Person: Dinkerrai Desai
Phone Number: (908) 532-1475

UST Number: 0081515

Tank ID Number(s)	Product Stored (Oil, Gas, etc.)	Tank Capacity (Gallons)	Site Assessment Required	Monitoring Well Required
<u>33</u>	<u>#2 oil</u>	<u>1000</u>	<u>yes</u>	<u>no</u>

Schedule

Activity	Start Date	Completion
Removal	<u>10/9/91</u>	<u>10/11/91</u>
Site Assessment	<u>10/11/91</u>	
Monitoring Well Installation	<u>n/a</u>	
Site Assessment Analytical Results	<u>11/15/91</u>	
Monitoring Well Analytical Results	<u>n/a</u>	
UST Site Assessment Summary		<u>1/9/92</u>

APPENDIX B

NJDEPE UST ASSESSMENT SUMMARY FORMS

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION

CN 029, 401 EAST STATE STREET
TRENTON, N.J. 08625-0029

FOR SITE USE ONLY	
UST #	_____
Date Rec'd	_____
TMS #	_____
Staff	_____

**UNDERGROUND STORAGE TANK
SITE ASSESSMENT SUMMARY**

*Under the provisions of the Underground Storage
of Hazardous Substances Act
in accordance with N.J.A.C. 7:14B*

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- Please print legibly or type.
- Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, Interim Closure Requirements for UST's, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.
- Return one original of the form and all required attachments to the above address.
- Attach a scaled site diagram of the subject facility which shows the information specified in Item IV B of this form.
- Explain any "No" or "N/A" response on a separate sheet.

Date of Submission 9/1/93

0081515-33
FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U. S. ARMY FORT MONMOUTH
DEH BLDG. #167
FORT MONMOUTH, NJ 07703 County MONMOUTH
Telephone No. (908) 532-1475

OWNER'S NAME AND ADDRESS, if different from above

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

- A. Was contamination found? ☐ Yes ☒ No If Yes, Case No. _____
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)
- B. The substance(s) discharged was(were) N/A
- C. Have any vapor hazards been mitigated? ☐ Yes ☐ No ☒ N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. N/A DHWM

The site assessment requirements associated with tank decommissioning are explained in the Technical Guidance Document, Interim Closure Requirements for UST's, Section V. A-D. Attach complete documentation of the methods used and the results obtained for each of the steps of tank decommissioning used. Please include a site map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotated to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly and legibly annotated.

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardous Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technical guidance documents for closure and corrective action. Describe amount of soil removed, its classification, and disposal location.

B. Scaled Site Diagrams

1. Scaled site diagrams must be attached which include the following information:

- North arrow and scale
- The locations of the ground water monitoring wells
- Location and depth of each soil sample and boring
- All major surface and sub-surface structures and utilities
- Approximate property boundaries
- All existing or closed underground storage tank systems, including appurtenant piping
- A cross-sectional view indicating depth of tank, stratigraphy and location of water table
- Locations of surface water bodies

C. Soil samples and borings (check appropriate answer)

- Were soil samples taken from the excavation as prescribed? ☒ Yes ☐ No ☐ N/A
- Were soil borings taken at the tank system closure site as prescribed? ☐ Yes ☐ No ☒ N/A
- Attach the analytical results in tabular form and include the following information about each sample:
 - Customer sample number (keyed to the site map)
 - The depth of the soil sample
 - Soil boring logs
 - Method detection limit of the method used
 - QA/QC Information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed NONE
2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:
 - a. Site diagram number for each well installed
 - b. Depth of ground water surface
 - c. Depth of screened interval
 - d. Method detection limit of the method used
 - e. Well logs
 - f. Well permit numbers
 - g. QA/QC Information as required

V. SOIL CONTAMINATION

- A. Was soil contamination found? Yes ☒ No ☐
If "Yes", please answer Question B-E
If "No", please answer Question B
- B. The highest soil contamination still remaining in the ground has been determined to be:
 1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
 2. N/A ppb total B/N, N/A ppb total non-targeted B/N
 3. N/A ppm TPHC
 4. N/A ppb N/A (for non-petroleum substance)
- C. Remediation of free product contaminated soils
 1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface Yes ☐ No ☐ N/A
 2. Free product contaminated soils are suspected to exist below the water table Yes ☐ No ☐ N/A
 3. Free product contaminated soils are suspected to exist off the property boundaries. Yes ☐ No ☐ N/A
- D. Was the vertical and horizontal extent of contamination determined? Yes ☐ No ☐ X N/A
- E. Does soil contamination intersect ground water? Yes ☐ No ☐ X N/A

VI. GROUND WATER CONTAMINATION

- A. Was ground water contamination found? Yes ☒ No ☐
If "Yes", please answer Questions B-G.
If "No", please answer only Question B.
- B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be:
 1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
 2. N/A ppb total B/N, N/A ppb total non-targeted B/N
 3. N/A ppb total MTBE, N/A ppb total TBA
 4. N/A ppb N/A (for non-petroleum substance)
 5. greatest thickness of separate phase product found N/A
 6. separate phase product has been delineated Yes ☐ No ☐ X N/A
- C. Result(s) of well search
 1. A well search (including a review of manual well records) indicates that private, municipal or commercial wells do exist within the distances specified in the Scope of Work. Yes ☐ No ☐ X N/A
 2. The number of these wells identified is N/A

D. Proximity of wells and contaminant plume

1. The shallowest depth of any well noted in the well search which may be in the horizontal or vertical potential path(s) of the contaminant plume(s) is N/A feet below grade (consideration has been given for the effects of pumping, subsurface structures, etc. on the direction(s) of contaminant migration). This well is N/A feet from the source and its screening begins at a depth of N/A feet.
2. The shallowest depth to the top of the well screen for any well in the potential path of the plume(s) (as described in D1 above) is N/A feet below grade. This well is located N/A feet from the source.
3. The closest horizontal distance of a private, commercial or municipal well in the potential path of the plume (as determined in D1) is N/A feet from the source. This well is N/A feet deep and screening begins at a depth of N/A feet.

E. A plan for separate phase product recovery has been included. ☐ Yes ☐ No ☒ N/A

F. A ground water contour map has been submitted which includes the ground water elevations for each well.
☐ Yes ☐ No ☒ N/A

G. Delineation of contamination

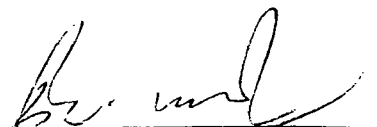
1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ☐ Yes ☐ No ☒ N/A
2. The plume is suspected to continue off the property at concentrations greater than MCLs.
☐ Yes ☐ No ☒ N/A
3. Off property access (circle one): ☐ is being sought ☐ has been approved ☐ has been denied ☒ N/A

VII. SITE ASSESSMENT CERTIFICATION [preparer of site assessment plan - N.J.A.C. 7:14B-8.3(b) & 9.5(a)3]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C. 7:14B-1.6) responsible for the design and implementation of the site assessment plan as specified in N.J.A.C. 7:14B-8.3(a) & 9.2(b)2, must supply the name of the certifying organization and certification number.

"I certify under penalty of law that the information provided in this document is true, accurate, and complete and was obtained by procedures in compliance with N.J.A.C. 7:14B-8 and 9. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) DINKERRAI DESAI

SIGNATURE 

COMPANY NAME DEH - U. S. ARMY
(Preparer of Site Assessment Plan)

DATE 9/1/93

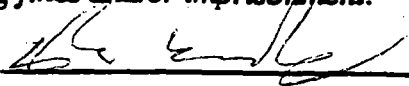
CERTIFYING
ORGANIZATION

CERTIFICATION
NUMBER

2266

VIII. TANK DECOMMISSIONING CERTIFICATION [person performing tank decommissioning portion of closure plan - N.J.A.C. 7:14B-9.5(a)4]

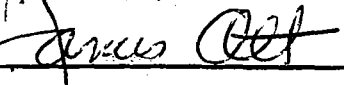
"I certify under penalty of law that tank decommissioning activities were performed in compliance with N.J.A.C. 7:14B-9.2(b)3. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) DINKERRAI DESAI SIGNATURE 
COMPANY NAME DEH - U. S. ARMY DATE 9/1/93
(Performer of Tank Decommissioning)

IX. CERTIFICATIONS BY THE RESPONSIBLE PARTY(IES) OF THE FACILITY

A. The following certification shall be signed by the highest ranking individual with overall responsibility for that facility [N.J.A.C. 7:14B-2.3(c)1].

"I certify under penalty of law that the information provided in this document is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) JAMES OTT. P. E. SIGNATURE 
COMPANY NAME DEH- U. S. ARMY DATE 9/1/93

B. The following certification shall be signed as follows [according to the requirements of N.J.A.C. 7:14B-2.3(C)2]:

1. For a corporation, by a principal executive officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, Federal or other public agency by either the principal executive officer or ranking elected official.
4. In cases where the highest ranking corporate partnership, governmental officer or official at the facility as required in A above is the same person as the official required to certify in B, only the certification in A need to be made. In all other cases, the certifications of A and B shall be made.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____
COMPANY NAME _____ DATE _____



RARITAN PLAZA I
4TH FLOOR, RARITAN CENTER
EDISON, NJ 08837-3616
908-417-5800 • FAX: 908-417-5801

ATTACHMENT I

NO/NA RESPONSE EXPLANATION

<u>SAS QUESTION #</u>	<u>RESPONSE</u>	<u>EXPLANATION</u>
IA.	No	No contaminants were identified in soil samples at concentrations exceeding proposed NJDEPE cleanup criteria.
IB.	N/A	Same as above.
IC.	N/A	Same as above.
III.	N/A	Closure of Tank 33 was conducted under verbal approval and on-site supervision of the NJDEPE Division of Hazardous Waste Management.
IV.C.2	N/A	No soil borings were proposed in the closure plan.
V.A	No	No contaminants were identified in soil samples at concentrations exceeding proposed NJDEPE cleanup criteria.
V.B.1-4	N/A	Same as above.
V.C.1-3	N/A	Same as above.
V.D	N/A	Same as above.
V.E	N/A	Same as above.
VI.A	No	No groundwater monitoring wells were installed as part of closure of Tank 33; therefore, no groundwater samples were collected.





ATTACHMENT I

NO/NA RESPONSE EXPLANATION

<u>SAS QUESTION #</u>	<u>RESPONSE</u>	<u>EXPLANATION</u>
VI.B.1-6	N/A	Same as above
VI.C.1-3	N/A	No release to groundwater has occurred from Tank 33; therefore, no well search was performed as part of the site assessment
VI.E	N/A	Same as above
VI.F	N/A	Same as above
VI.G.1-3	N/A	No groundwater contamination resulting from a release from Tank 33 has been identified

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION

CN 029, 401 EAST STATE STREET
TRENTON, N.J. 08625-0029

FOR SINGLE USE ONLY	
UST #	_____
Date Rec'd	_____
TMS #	_____
Staff	_____

**UNDERGROUND STORAGE TANK
SITE ASSESSMENT SUMMARY**

*Under the provisions of the Underground Storage
of Hazardous Substances Act
in accordance with N.J.A.C. 7:14B*

This Summary form shall be used by all owners and operators of Underground Storage Tank Systems (USTS) who have either reported a release and are subject to the site assessment requirements of N.J.A.C. 7:14B-8.2 or who have closed USTS pursuant to N.J.A.C. 7:14B-9.1 et seq. and are subject to the site assessment requirements of N.J.A.C. 7:14B-9.2 and 9.3.

INSTRUCTIONS:

- Please print legibly or type.
- Fill in all applicable blanks. This form will require various attachments in order to complete the Summary. The technical guidance document, Interim Closure Requirements for USTs, explains the regulatory (and technical) requirements for closure and the Scope of Work, Investigation and Corrective Action Requirements for Discharges from Underground Storage Tanks and Piping Systems explains the regulatory (and technical) requirements for corrective action.
- Return one original of the form and all required attachments to the above address.
- Attach a scaled site diagram of the subject facility which shows the information specified in Item IV B of this form.
- Explain any "No" or "N/A" response on a separate sheet.

Date of Submission 9/1/93

0081515-46
FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U. S. ARMY FORT MONMOUTH

DEH BLDG. #167

FORT MONMOUTH, NJ 07703

County MONMOUTH

Telephone No. (908) 532-1475

OWNER'S NAME AND ADDRESS, if different from above

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

- A. Was contamination found? ☐ Yes ☒ No If Yes, Case No. _____
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)
- B. The substance(s) discharged was(were) N/A
- C. Have any vapor hazards been mitigated? ☐ Yes ☐ No ☒ N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure Approval No. N/A DHWM

The site assessment requirements associated with tank decommissioning are explained in the Technical Guidance Document, Interim Closure Requirements for USTs, Section V. A-D. Attach complete documentation of the methods used and the results obtained for each of the steps of tank decommissioning used. Please include a site map which shows the locations of all samples and borings, the location of all tanks and piping runs at the facility at the beginning of the tank closure operation and annotated to differentiate the status of all tanks and piping (e.g., removed, abandoned, temporarily closed, etc.). The same site map can be used to document other parts of the site assessment requirements, if it is properly and legibly annotated.

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

Any evidence of contamination in excavated soil will require that the soil be classified as either Hazardous Waste or Non-Hazardous Waste. Please include all required documentation of compliance with the requirements for handling contaminated excavated soil (if any was present) as explained in the technical guidance documents for closure and corrective action. Describe amount of soil removed, its classification, and disposal location.

B. Scaled Site Diagrams

1. Scaled site diagrams must be attached which include the following information:

- North arrow and scale
- The locations of the ground water monitoring wells
- Location and depth of each soil sample and boring
- All major surface and sub-surface structures and utilities
- Approximate property boundaries
- All existing or closed underground storage tank systems, including appurtenant piping
- A cross-sectional view indicating depth of tank, stratigraphy and location of water table
- Locations of surface water bodies

C. Soil samples and borings (check appropriate answer)

- Were soil samples taken from the excavation as prescribed? ☐ Yes ☒ No ☐ N/A
- Were soil borings taken at the tank system closure site as prescribed? ☐ Yes ☐ No ☒ N/A
- Attach the analytical results in tabular form and include the following information about each sample:
 - Customer sample number (keyed to the site map)
 - The depth of the soil sample
 - Soil boring logs
 - Method detection limit of the method used
 - QA/QC Information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed NONE
2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:
 - a. Site diagram number for each well installed
 - b. Depth of ground water surface
 - c. Depth of screened interval
 - d. Method detection limit of the method used
 - e. Well logs
 - f. Well permit numbers
 - g. QA/QC Information as required

V. SOIL CONTAMINATION

- A. Was soil contamination found? Yes ☒ No ☒

If "Yes", please answer Question B-E

If "No", please answer Question B

- B. The highest soil contamination still remaining in the ground has been determined to be:

1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
2. N/A ppb total B/N, N/A ppb total non-targeted B/N
3. N/A ppm TPHC
4. N/A ppb N/A (for non-petroleum substance)

C. Remediation of free product contaminated soils

1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface Yes ☐ No ☐ N/A ☐
2. Free product contaminated soils are suspected to exist below the water table Yes ☐ No ☐ N/A ☐
3. Free product contaminated soils are suspected to exist off the property boundaries. Yes ☐ No ☐ N/A ☐

- D. Was the vertical and horizontal extent of contamination determined? Yes ☐ No ☐ X N/A ☒

- E. Does soil contamination intersect ground water? Yes ☐ No ☐ X N/A ☒

VI. GROUND WATER CONTAMINATION

- A. Was ground water contamination found? Yes ☐ No ☒

If "Yes", please answer Questions B-G.

If "No", please answer only Question B.

- B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be:

1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
2. N/A ppb total B/N, N/A ppb total non-targeted B/N
3. N/A ppb total MTBE, N/A ppb total TBA
4. N/A ppb N/A (for non-petroleum substance)
5. greatest thickness of separate phase product found N/A
6. separate phase product has been delineated Yes ☐ No ☐ X N/A ☒

C. Result(s) of well search

1. A well search (including a review of manual well records) indicates that private, municipal or commercial wells do exist within the distances specified in the Scope of Work. Yes ☐ No ☐ X N/A ☒

2. The number of these wells identified is N/A

D. Proximity of wells and contaminant plume

1. The shallowest depth of any well noted in the well search which may be in the horizontal or vertical potential path(s) of the contaminant plume(s) is N/A feet below grade (consideration has been given for the effects of pumping, subsurface structures, etc. on the direction(s) of contaminant migration). This well is N/A feet from the source and its screening begins at a depth of N/A feet.
2. The shallowest depth to the top of the well screen for any well in the potential path of the plume(s) (as described in D1 above) is N/A feet below grade. This well is located N/A feet from the source.
3. The closest horizontal distance of a private, commercial or municipal well in the potential path of the plume (as determined in D1) is N/A feet from the source. This well is N/A feet deep and screening begins at a depth of N/A feet.

E. A plan for separate phase product recovery has been included. ☐ Yes ☐ No ☒ N/A

F. A ground water contour map has been submitted which includes the ground water elevations for each well.
☐ Yes ☐ No ☒ N/A

G. Delineation of contamination

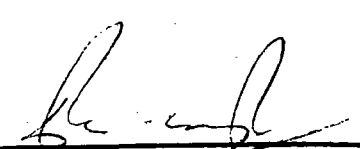
1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ☐ Yes ☐ No ☒ N/A
2. The plume is suspected to continue off the property at concentrations greater than MCLs.
☐ Yes ☐ No ☒ N/A
3. Off property access (circle one): ☐ is being sought ☐ has been approved ☒ has been denied ☒ N/A

VII. **SITE ASSESSMENT CERTIFICATION** [preparer of site assessment plan - N.J.A.C. 7:14B-8.3(b) & 9.5(a)(3)]

The person signing this certification as the "Qualified Ground Water Consultant" (as defined in N.J.A.C. 7:14B-1.6) responsible for the design and implementation of the site assessment plan as specified in N.J.A.C. 7:14B-8.3(a) & 9.2(b)(2), must supply the name of the certifying organization and certification number.

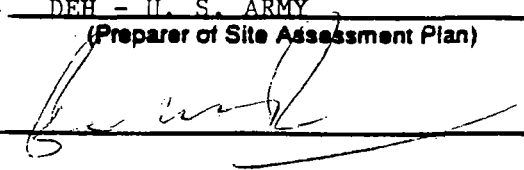
"I certify under penalty of law that the information provided in this document is true, accurate, and complete and was obtained by procedures in compliance with N.J.A.C. 7:14B-8 and 9. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) DINKERRAI DESAI

SIGNATURE 

COMPANY NAME DEH - U. S. ARMY
(Preparer of Site Assessment Plan)

DATE 9/1/93

CERTIFYING
ORGANIZATION 

CERTIFICATION
NUMBER 2266

VIII. TANK DECOMMISSIONING CERTIFICATION [person performing tank decommissioning portion of closure plan - N.J.A.C. 7:14B-9.5(a)4]

"I certify under penalty of law that tank decommissioning activities were performed in compliance with N.J.A.C. 7:14B-9.2(b)3. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) DINKERRAI DESAI SIGNATURE [Signature]
COMPANY NAME DEH - U. S. ARMY DATE 9/1/93
(Performer of Tank Decommissioning)

IX. CERTIFICATIONS BY THE RESPONSIBLE PARTY(IES) OF THE FACILITY

A. The following certification shall be signed by the highest ranking individual with overall responsibility for that facility [N.J.A.C. 7:14B-2.3(c)1].

"I certify under penalty of law that the information provided in this document is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) JAMES OTT P.E SIGNATURE [Signature]
COMPANY NAME DEH- U. S. ARMY DATE 9/1/93

B. The following certification shall be signed as follows (according to the requirements of N.J.A.C. 7:14B-2.3(C)2):

1. For a corporation, by a principal executive officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, Federal or other public agency by either the principal executive officer or ranking elected official.
4. In cases where the highest ranking corporate partnership, governmental officer or official at the facility as required in A above is the same person as the official required to certify in B, only the certification in A need to be made. In all other cases, the certifications of A and B shall be made.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment."

NAME (Print or Type) _____ SIGNATURE _____
COMPANY NAME _____ DATE _____



RARITAN PLAZA I
4TH FLOOR, RARITAN CENTER
EDISON, NJ 08837-3616
908-417-5800 • FAX: 908-417-5801

ATTACHMENT 1

NO/NA RESPONSE EXPLANATION

<u>SAS QUESTION #</u>	<u>RESPONSE</u>	<u>EXPLANATION</u>
IA.	No	No contaminants were identified in soil samples at concentrations exceeding proposed NJDEPE cleanup criteria.
IB.	N/A	Same as above.
IC.	N/A	Same as above.
III.	N/A	Closure of Tank 46 was conducted under verbal approval and on-site supervision of the NJDEPE Division of Hazardous Waste Management.
IV.C.1	No	Sampling parameters were reduced from PP+40 to TPHC (and BN+15 if TPHC > 100 mg/kg) based on the conclusion that the tank was never in use. This approach was verbally approved by the NJDEPE representative present during closure.
IV.C.2	N/A	No soil borings were proposed in the closure plan.
V.A	No	No contaminants were identified in soil samples at concentrations exceeding proposed NJDEPE cleanup criteria.
V.B.1-4	N/A	Same as above.
V.C.1-3	N/A	Same as above.
V.D	N/A	Same as above.
V.E	N/A	Same as above.
VI.A	No	No groundwater monitoring wells were installed as part of closure of Tank 46; therefore, no groundwater samples were collected.





ATTACHMENT 1

NO/NA RESPONSE EXPLANATION

<u>SAS QUESTION #</u>	<u>RESPONSE</u>	<u>EXPLANATION</u>
VI.B.1-6	N/A	Same as above.
VI.C.1-3	N/A	No release to groundwater has occurred from Tank 46; therefore, no well search was performed as part of the site assessment.
VI.E	N/A	Same as above.
VI.F	N/A	Same as above.
VI.G.1-3	N/A	No groundwater contamination resulting from a release from Tank 46 has been identified.

APPENDIX B

**UST Closure and Site Assessment Report, Building 2567, UST Nos. 42, 43, 44, and
45, Roy F. Weston, Inc., January 1995**



**UNDERGROUND STORAGE TANK
CLOSURE AND SITE
INVESTIGATION REPORT
BUILDING 2567
NJDEP FACILITY UST NO. 081515
UST NOS. 42, 43, 44 AND 45
TMS NO. C-92-2950
SPILL CASE NOS. 89-12-12-1442 AND 91-8-27-1414**

Volume 1 of 2

January 1995

Work Order No.: 03886-088-001

Prepared For:

UNITED STATES ARMY
Directorate of Public Works
Building 167
Fort Monmouth, New Jersey 07703

Prepared by:

ROY F. WESTON, INC.
Raritan Plaza I
4th Floor
Raritan Center
Edison, New Jersey 08837

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EXECUTIVE SUMMARY

On 12 December 1989, the Directorate of Public Works (DPW) notified the New Jersey Department of Environmental Protection and Energy (NJDEP) of a suspected fuel leak at the Charles Wood gas station, Building 2567. Spill Case No. 89-12-12-1442 was assigned by the NJDEP. The U.S. Army-DPW investigated the suspected release by performing a tightness test of the premium gas line which was suspected of leaking. On 30 January 1990, this line passed the tightness test.

On 15 and 16 January 1991, routine tightness tests were performed of three underground storage tanks (USTs), identified as Nos. 42, 43, and 44. UST Nos. 42 and 44 passed the tank system tightness test, however UST No. 43 failed. In response to the failed tightness test, the DPW issued a purchase order for the removal of USTs of Building 2567 gas station and notified the NJDEP of the failed tightness test. NJDEP issued Spill Case No. 91-8-27-1414.

In response to the suspected discharges, four groundwater monitor wells were installed at the Building 2567 gas station on 9 October 1991. These wells were sampled on 10 December 1991 and sample results indicated lead and all volatile organic compounds were less than the NJDEP's Ground Water Quality Criteria, except for benzene, 1,2-dichloroethene, total xylene, and methylene chloride.

The groundwater monitor wells were resampled on 26 October 1992, 21 April 1993, 3 February and 31 March 1994. In general, the detected concentrations of volatile organic compounds declined during the subsequent samplings. However, lead was detected in groundwater samples at greater levels with each sampling. Results from 31 March 1994 indicated that all detected volatile organic compounds were less than the NJDEP's Class IIA Ground Water Quality Criteria, except for benzene, total xylene, and methylene chloride. Lead was detected only in monitor well MW-3 above the NJDEP's Class II A Ground Water Quality Criteria.

Concurrent with the groundwater sampling investigation program, the DPW pursued the closure of UST Nos. 42 through 45. On 26 June 1992, a UST Decommissioning/Closure Plan was submitted to the NJDEP, followed by submittal of an UST Closure Plan Approval Application on 5 August 1992. The NJDEP issued Closure Approval, TMS No. C-92-2950 on 14 September 1992.

During 2 to 5 February 1993, the four USTs were closed at U.S. Army Fort Monmouth, in Fort Monmouth, New Jersey. UST Nos. 42 to 45 were located adjacent to Building 2567 in the Charles Wood area of Fort Monmouth. UST Nos. 42 to 44 were single walled steel, 10,000-gallon capacity, unleaded gasoline tanks. UST No. 45 was a single walled steel, 6,000-gallon capacity, leaded gasoline tank. UST Nos. 42 to 45 were located adjacent to each other. Cycle Construction Incorporated (CCI) performed the tank closure. The tanks were inspected



following removal for cracks, corrosion holes and puncture holes for indications of historical leakage from the tanks. UST Nos. 42 to 45 were found to be in good condition with no corrosion holes.

Soils surrounding the tanks were screened visually and with air monitoring instruments for evidence of contamination. Based on visual observations and screening approximately 936 cubic yards of soil were removed from the area surrounding the USTs and pump island. In both areas excavation was continued until either no evidence of contamination was found, based on field observations, or until further removal of soil would have endangered the integrity of structures, and roadways adjacent to the areas of investigation. Despite the groundwater levels in the monitoring wells, groundwater was not encountered until the excavation reached 7 feet BGS. The excavations were therefore extended to 7 feet BGS when necessary. When the excavation was completed the area was backfilled with clean soil and the surface paved.

Post excavation soil sample were collected on 2 February 1993 and 24 February 1993. Soil samples were analyzed for total petroleum hydrocarbons (TPHC), volatile organic compounds, and lead. Analytical results were compared to both the Impact to Ground Water (ITGW) and Residential Direct Contact (RDC) Soil Cleanup Criteria established by NJDEP. TPHC and lead were detected in post-excavation samples, however, the results were below both the ITGW and RDC soil cleanup criteria. Thirteen of 23 samples analyzed for volatile organics exceeded the ITGW and/or RDC soil cleanup criteria for xylenes, benzene, or ethylbenzene.

Based on the reduction in groundwater contaminant levels, future impact on the environment is not anticipated. The reduction in groundwater contaminant levels is attributable to the following:

- The contaminant sources, tank Nos. 42 to 45, 936 cubic yards of soil and the pump island piping were successfully removed. The analytical testing of soil had indicated that limited residual contamination exists in the soil below the surface.
- The site was backfilled with clean material and paved. The asphalt pavement caps the site and precludes the infiltration of precipitation and other surface water to the ground, which reduces the potential for residual soil contaminants leaching from the soil into the groundwater.

On 23 September 1994 one additional monitoring well (MW-5) was installed to determine if contaminants were present downgradient from the site. Well MW-5 is located southeast of the site on the eastern side of Hope Road. The well was placed downgradient of the site based on previous groundwater level measurements. Well MW-5 will be used for future sampling events and to confirm groundwater flow patterns on the site. An addendum to this report will be provided to the NJDEP when groundwater sample analysis is complete.

SECTION 1.0

UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

On 5 February 1993, four underground storage tanks (USTs), UST Nos. 42 to 45, were closed at Building 2567 at U.S. Army Fort Monmouth, New Jersey. UST Nos. 42 to 44 were single wall steel, 10,000-gallon capacity, unleaded gasoline tanks. UST No. 45 was a single wall steel, 6,000-gallon capacity, leaded fuel tank. UST Nos. 42 to 45 were located immediately adjacent to each other. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP-DHWM on 26 June 1992 and approved 14 September 1992 (Closure approval No. C-92-2950).

All activities associated with the decommissioning of UST Nos. 42 to 45 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., N.J.A.C. 7:26E-1 et seq. and Occupational Safety and Health Administration (OSHA) 29 CFR 1910.146 & 29 CFR 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. Cycle Construction, Inc. (CCI), the contractors that conducted the decommissioning activities, are currently registered and certified by the NJDEP for performing UST closure activities.

The NJDEP Closure Approval and correspondence with the NJDEP have been included in Appendix A. The UST Site Assessment Summary Form for UST Nos. 42 to 45 has been included in Appendix B. The UST Site Assessment Summary Form has been signed and sealed by Mr. James Ott, Acting Director of DPW, U.S. Army Fort Monmouth.

This UST Closure and Site Investigation Report was prepared by Roy F. Weston Inc. (WESTON®), to assist the United State Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations.

Section 1 of this UST Closure and Site Investigation Report provides a summary of the tank decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

The applicable NJDEP-BUST regulations at the date of closure were the "Technical Requirements for Site Remediation" (N.J.A.C. 7:26E-1 et seq., dated May 1992).



1.2 SITE DESCRIPTION AND UST HISTORY

Building 2567 is located off Laboratory Road in the Charles Wood area of U.S. Army, Fort Monmouth. A facility location map is provided in Figure 1-1. Building 2567 is used as the installation gas station and is situated on level ground. The gasoline dispenser area was located approximately 50 feet west of the UST field. A pipe chase approximately 60 feet in length connected the dispenser area to the UST field. Figure 1-2 provides a site map of the former UST location and dispenser area.

On 12 December 1989, the Directorate of Public Works (DPW) notified the New Jersey Department of Environmental Protection and Energy (NJDEP) of a fuel leak at the Charles Wood gas station, Building 2567 (Case No. 89-12-12-1442).

On 30 January 1990, a tightness test was conducted on the premium gasoline line by Herbert Lutz and Company located in Linden, New Jersey. The line tested tight.

On 15 and 16 January 1991, three underground storage tanks (USTs) identified by Nos. 42, 43, 44 and 45 were tightness tested by Tank Test Inc. (TTI). UST Nos. 42 and 44 passed the tank system tightness test, although UST No. 43 failed.

On 1 August 1991, a purchase order to obtain permits for the removal of USTs at Buildings 2567, 8003, 8005 and 8006 was sent to the NJDEP by E-Systems Inc./Serv-Air (SAI).

On 27 August 1991, the NJDEP was notified of the UST which failed the tank system tightness test on 15 and 16 January 1991 (Case No. 91-8-27-1414). In response, the UST was placed out of service and the closure, remediation and construction of a new facility at that location was planned and coordinated by the DPW.

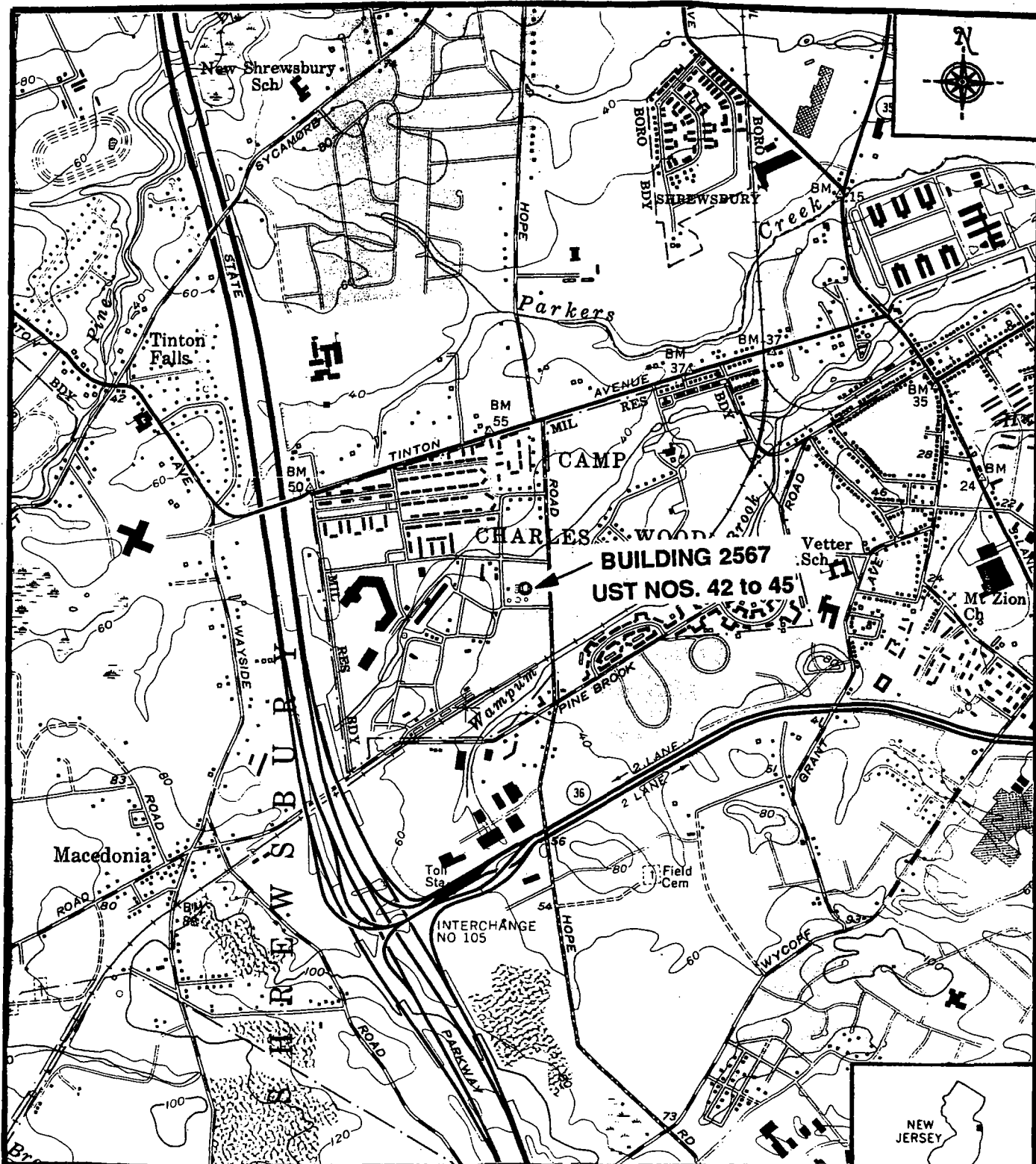
On 26 June 1992, a UST Decommissioning/Closure Plan was submitted to NJDEP.

On 5 August 1992, a UST Closure Plan Approval Application was submitted to NJDEP. The state responded on 14 September 1992 with a Closure Approval (TMS No. C-92-2950).

On 29 October 1992, a pre-construction conference was conducted between CCI and DPW.

On 24 November 1992, DPW sent a correspondence to NJDEP requesting a one year extension for the existing closure permits.

Between 2 and 5 February 1993, four USTs were closed at U.S. Army Fort Monmouth, in Fort Monmouth, New Jersey. UST Nos. 42 to 45 were located adjacent to Building 2567 in the Charles Wood area of Fort Monmouth. UST Nos. 42 to 44 were single walled steel, 10,000-



REFERENCE: U.S.G.S. QUADRANGLE LONG BRANCH, NJ: PHOTOREVISED 1961
 CONTOUR INTERVAL 20 FEET SCALE 1 INCH = 2000 FEET

UST LATITUDE: N 40 Deg. 17 Min. 44 Sec.
 UST LONGITUDE: W 74 Deg. 4 Min. 48 Sec.

QUADRANGLE LOCATION



FIGURE 1-1
FACILITY LOCATION MAP
U.S. ARMY - DIRECTORATE OF PUBLIC WORKS
FORT MONMOUTH, NEW JERSEY



gallon capacity, unleaded gasoline tanks. UST No. 45 was a single walled steel, 6,000-gallon capacity, leaded gasoline tank. UST Nos. 42 to 45 were located adjacent to each other. CCI performed the tank closure.

1.3 GEOLOGICAL/HYDROGEOLOGICAL SETTING

The following is a description of the geological/hydrogeological setting of the area surrounding Building 2567. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Charles Wood area.

1.3.1 Geological Setting

Regional Geology

Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain physiographic province. The Main Post, Charles Wood, and the Evans areas are located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands.

In general, New Jersey, Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, sand, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward-coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual thicknesses for these units vary greatly (i.e., from several feet to several hundred feet). The Coastal Plain deposits thicken to the southeast from the Fall Line to greater than 6,500 feet in Cape May County (Brown and Zapeczka, 1990).

Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Charles wood area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish-brown clayey, medium-to-course-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark grey to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

The Tinton sand conformably overlies the Red Bank Sand and ranges from a clayey, medium-to-very coarse grained feldspathic quartz and glauconite sand to a glauconitic coarse sand. The color varies from dark yellowish-orange or light brown to moderate brown and from light olive to grayish olive. Glauconite may constitute 60 to 80 percent of the sand fraction in the upper part of the unit (Minard, 1969). The upper part of the Tinton is often highly oxidized and iron-oxide encrusted (Minard).

Over the last 80 years, the natural topography of Fort Monmouth has been altered by excavation and filling activities by the military. Topographic elevations for the Charles Wood area range from five feet above mean sea level (MSL) to 31 feet above MSL.

A Subsurface Profile of the USTs located at Building 2567 is provided in Figure 1-3.

1.3.2 Hydrogeological Setting

Hydrogeology

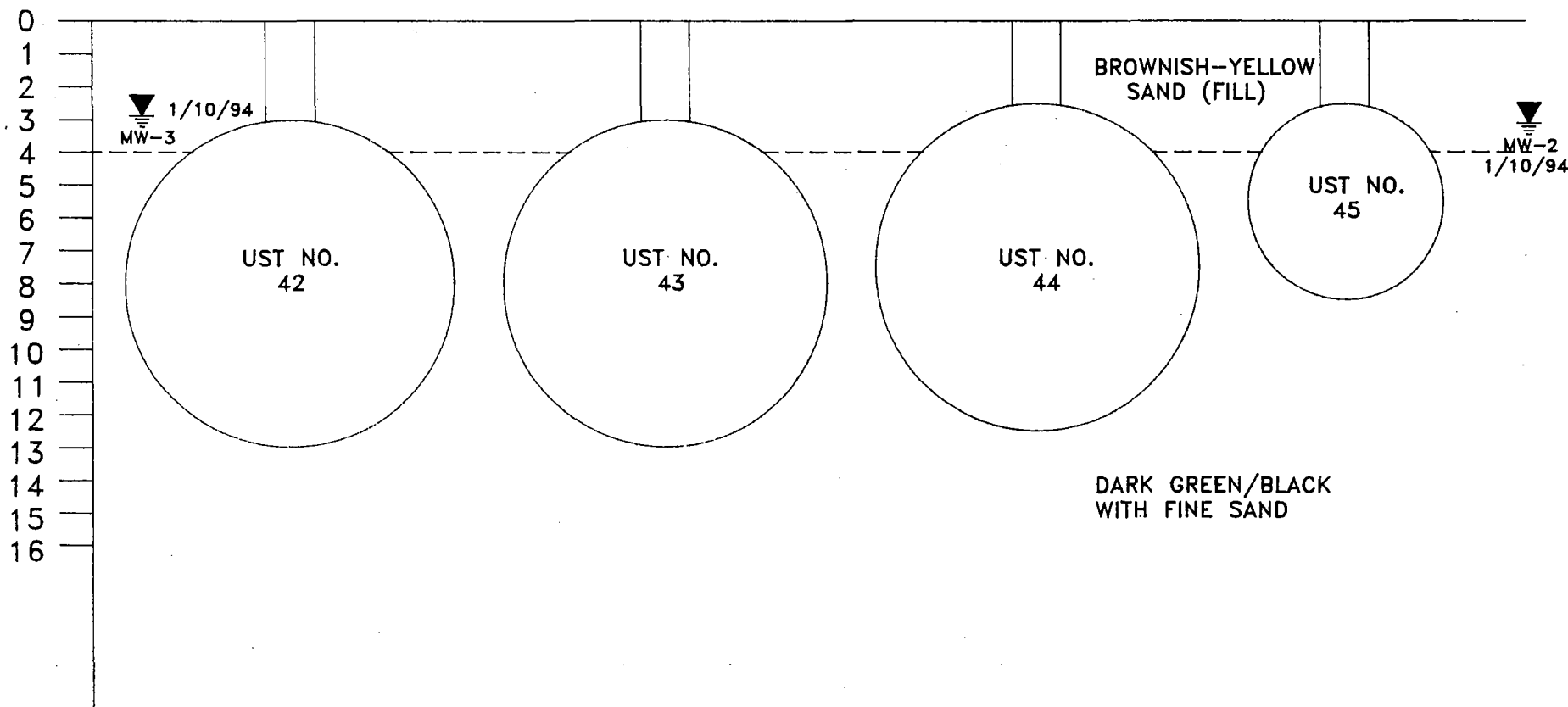
The water table aquifer at the Charles Wood area is identified as part of the "composite confining units", or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

Based on records from wells drilled at the Charles Wood area, ground water is typically encountered at depths of two to nine feet below ground surface (BGS). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce from 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Shallow groundwater is locally influenced within the Charles Wood area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers and tributaries),
- topography,

1-7



REVISION #: 0000 DATE: 5/16/94
FILE NAME: B2567X.DWG DRAWN BY: B. MAC



PROJECT NAME:
UNDERGROUND STORAGE TANK CLOSURE
AND SITE INVESTIGATION REPORT
BUILDING 2567 - UST NOS. 42-45
FORT MONMOUTH, NEW JERSEY
CLIENT NAME: U.S. ARMY - FORT MONMOUTH
DIRECTORATE OF PUBLIC WORKS

SUBSURFACE PROFILE

DATE: 06/29/94

FIGURE #: 1 - 3



- nature of the fill material within the Main Post area,
- presence of clay and silt lenses in the natural overburden deposits, and
- local groundwater recharge areas (i.e. stream, lakes).

Due to the fluvial nature of the overburden deposits (i.e. sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. This is consistent with lithologies observed in borings installed within the Charles Wood area, which primarily consisted of fine-to-medium grained sands, with occasional lenses or laminations of silt and/or clay.

On 9 October 1991, four monitoring wells were placed in the area surrounding UST Nos. 42 to 45. The monitoring well permit, monitoring well records, and Form B for each well are provided in Appendix C. A fifth monitoring well (MW-5) was installed downgradient, southeast of the site, on 23 September 1994. Well MW-5 had not been surveyed or sampled when this report was completed. Information provided by the well will be included in future submittals. The monitoring well permit and well records are included in Appendix C.

Building 2567 is less than 1/2 mile north of Mill Brook, the nearest water body. The groundwater flow in the area of Building 2567 has been determined to be in a southeastern direction. A table of water level elevations collected from the four monitoring wells located in the area of Building 2567 is provided in Table 1-1. The Atlantic Ocean is located approximately 15 miles east of the site.

1.3.3 Offsite Groundwater Usage

In compliance with the NJDEP regulations, WESTON conducted a well search to identify all irrigation, monitoring, domestic, industrial and public supply wells within one half mile of U.S. Army Fort Monmouth, Charles Wood area. The file search produced records for 68 wells. The well search summary table includes the following information on surrounding wells: well identification number; well owner; well address; total depth (feet BGS); casing length (feet); static water level elevation (feet BGS); use code; and NJDEP permit number. In addition, a summary table of all U.S. Army wells located at Fort Monmouth is provided which includes the following information: well number; NJDEP permit number; New Jersey State Plane Coordinates; casing elevation and; elevation of the ground surface; and well records for the nearest identified offsite well have been included, if available. This information is included in Appendix D.

A review of the well records indicated that the majority of the wells within the area of concern are used for monitoring purposes. There are 52 monitoring wells. A domestic well (Permit Number 29-16207), owned by Joseph Stella is the closest to the site in the downgradient flow direction. The well is located at 144 Grant Avenue, approximately 6,500 feet southeast of the site.

TABLE 1-1

**WATER LEVEL ELEVATIONS FOR
MONITORING WELLS MW-1, MW-2, MW-3 AND MW-4
LOCATED AT BUILDING 2567**

Monitoring Well Permit Number	Date	Time of Collection	Ground Surface Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
29-26925 (MW-1)	12/10/91	11:05 am	33.93	4.45	29.48
29-26926 (MW-2)	12/10/91	10:55 am	35.26	3.65	31.61
29-26927 (MW-3)	12/10/91	11:00 am	33.88	4.25	29.63
29-26928 (MW-4)	12/10/91	10:50 am	33.51	2.20	31.31

Monitoring Well Permit Number	Date	Time of Collection	Ground Surface Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
29-26925 (MW-1)	10/26/92	3:55 pm	33.93	5.17	28.76
29-26926 (MW-2)	10/26/92	4:05 pm	35.26	3.16	32.10
29-26927 (MW-3)	10/26/92	4:10 pm	33.88	4.52	29.36
29-26928 (MW-4)	10/26/92	4:13 pm	33.51	4.38	29.13

Monitoring Well Permit Number	Date	Time of Collection	Ground Surface Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
29-26925 (MW-1)	1/28/93	9:10 to 9:40 am	33.93	4.05	29.88
29-26926 (MW-2)	1/29/93	9:10 to 9:40 am	35.26	3.65	31.61
29-26927 (MW-3)	1/29/93	9:10 to 9:40 am	33.88	4.15	29.73
29-26928 (MW-4)	1/29/93	9:10 to 9:40 am	33.51	2.50	31.01

TABLE 1-1 (CONTINUED)

**WATER LEVEL ELEVATIONS FOR
MONITORING WELLS MW-1, MW-2, MW-3 AND MW-4
LOCATED AT BUILDING 2567**

Monitoring Well Permit Number	Date	Time of Collection	Ground Surface Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
29-26925 (MW-1)	2/25/93	10:45 to 11:15 am	33.93	4.65	29.28
29-26926 (MW-2)	2/25/93	10:45 to 11:15 am	35.26	4.25	31.01
29-26927 (MW-3)	2/25/93	10:45 to 11:15 am	33.88	4.20	29.68
29-26928 (MW-4)	2/26/93	10:45 to 11:15 am	33.51	2.75	30.76

Monitoring Well Permit Number	Date	Time of Collection	Ground Surface Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
29-26925 (MW-1)	4/21/93	9:53 am	33.93	4.60	29.33
29-26926 (MW-2)	4/21/93	10:58 am	35.26	4.30	30.96
29-26927 (MW-3)	4/21/93	11:02 am	33.88	4.00	29.88
29-26928 (MW-4)	4/21/93	9:45 am	33.51	2.90	30.61

Monitoring Well Permit Number	Date	Time of Collection	Ground Surface Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
29-26925 (MW-1)	1/10/94	8:15 am	33.93	3.70	30.23
29-26926 (MW-2)	1/10/94	8:05 am	35.26	3.18	32.08
29-26927 (MW-3)	1/10/94	8:20 am	33.88	2.85	31.03
29-26928 (MW-4)	1/10/94	8:10 am	33.51	2.16	31.35

1.4 HEALTH AND SAFETY

Before, during, and after all activities, hazards at the work site which may have posed a threat to the health and safety of all personnel who were involved with, or were affected by, the decommissioning of the UST system were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing approved equipment. The trained individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

1.5 REMOVAL OF UNDERGROUND STORAGE TANK

1.5.1 General Procedures

Between 2 and 5 February 1993, UST No. 42 to 45 were closed by removal at Building 2567 on the Charles Wood area of Fort Monmouth. Tank closure activities were conducted as follows:

- All underground obstructions (utilities,... etc.) were marked out by the contractor performing the closure prior to excavation activities.
- Surface materials (i.e, asphalt, concrete, etc...) were excavated and staged separate from all soils. These materials were later recycled in accordance with all applicable laws and regulations.
- Each tank's atmosphere was inerted.
- Access ways on top of the tank's were opened.
- Licensed tank closure contractor personnel entered the tanks to visually inspect and manually clean the insides of the tanks.
- All wastes (tank bottom sludge and tank rinsate) generated during cleaning were collected and disposed.
- The tanks were removed from the excavation and staged on plastic sheeting.
- Soil was excavated until field screening no longer indicated the presence of contamination or the structural integrity of buildings and road ways were threatened.
- Soil excavated during the tank closure was transported to Soil Remediation of Philadelphia for characterization and disposal/reuse.



- Post closure soil samples were collected for laboratory analysis.
- The excavation was backfilled with clean fill material to the original surface grade, and the area paved.
- A Sub-Surface Evaluator from the DPW was present during all closure activities.

1.5.2 Underground Storage Tank Excavation

Soil was excavated to expose the USTs and the associated piping. The piping was not removed/disturbed until all free product was drained into the USTs. The USTs were rendered vapor free by purging prior to any cutting or access. After removal of the associated piping, a manway from each UST was made to allow for proper cleaning. The USTs were completely emptied of all liquids prior to removal. Liquids were transported and disposed of by L & L Oil Service, Inc. L & L is a licensed hazardous waste transporter (USEPA ID# NJD01427895). Approximately 180 gallons of hazardous liquid was transported by L & L Oil Service, Inc. to S & W Wastes, Inc. in South Kearny, New Jersey. Hazardous waste manifests were completed and can be found in Appendix C. All of the openings in the tanks were plugged except for one hole (manway).

After the USTs were removed from the excavation, they were staged on polyethylene sheeting and examined for cracks, corrosion or puncture holes. The presence or absence of holes was documented by the Sub-Surface Evaluator. UST Nos. 42 to 45 were found to be in good condition with no corrosion holes. Groundwater was present in the excavation at approximately four feet BGS.

Soils surrounding the UST were screened visually and with a Photoionization Detector (PID) for evidence of contamination. Based on visual observations and screening approximately 936 cubic yards of soil were removed from the area surrounding the USTs and pump island. In both areas excavation was continued until either no evidence of contamination was found, based on field observations, or until further removal of soil would endanger their integrity of structures and roadways adjacent to the area of investigation. Groundwater noted in the wells at 4 feet BGS was not encountered in the excavation above the 7 feet BGS. Therefore, the excavations were extended to 7 feet BGS when necessary. When excavation was completed, the area was backfilled and the site paved. The potentially contaminated soil was manifested and transported to Soil Remediation of Philadelphia for recycling. A certificate of soil remediation is provided in Appendix E.

1.6 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tanks were transported by Cycle Construction, Inc. to Mazza and Sons, Inc., for recycling in compliance with all applicable regulations and laws. The Tank Reclamation Certificates are provided in Appendix F.

The contractor labelled the UST prior to transport with the following information:

- site of origin,
- contact person,
- NJDEP UST Facility ID number,
- name of transporter/contact person, and
- destination site/contact person.

1.7 MANAGEMENT OF EXCAVATED SOIL

Approximately 936 cubic yards of contaminated soil were removed from the area surrounding UST Nos. 42 to 45 and the pump island. Soil was placed on and covered with polyethylene sheets. Potentially contaminated soils were stockpiled separately from other excavated material. Potentially contaminated soils were transported to Soil Remediation of Philadelphia. A certificate of soil remediation is provided in Appendix F. All soils free of evidence of contamination were backfilled into the excavation following removal of the USTs.



SECTION 2.0

SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S ARMY DPW personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, Environmental Profile Laboratories and 21st Century Environmental, which are NJDEP-certified testing laboratories. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator according to the methods described in the NJDEP Field Sampling Procedures Manual (May 1992). Sampling frequency and parameters analyzed complied with the NJDEP-BUST document "Technical Requirements for Site Remediation-Proposed New Rules" (May 1992) which was the applicable regulation at the date of closure. All records of the Site Investigation activities are maintained by Fort Monmouth DPW: Environmental Office.

The following Parties participated in Closure and Site Investigation activities.

- Closure Contractor #1: Cycle Construction, Inc.
Contact Person: Peter P. Maglow
Phone Number: (908) 264-7177
NJDEP Company Certification No.: G0000592
- Hazardous Waste Hauler: L & L Oil Service, Inc.
Contact Person: Frank Labella
Phone Number: (908) 566-2785
USEPA ID No.: NJD01427895
- Subsurface Evaluator: Charles Appleby
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-6224
NJDEP Certification No.: 2056
- Analytical Laboratory: Environmental Profile Laboratories
Contact Person: Daniel Wright
Phone Number: (908) 244-6278
NJDEP Laboratory Certification No.: 15526



- Analytical Laboratory: 21st Century Environmental, Inc.
Contact Person: Richard W. Lynch
Phone Number: (609) 467-9521
NJDEP Laboratory Certification No.: 08031
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Testing Laboratory
Contact Person: Brian McKee
Phone Number: (609) 532-4359
NJDEP Laboratory Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

All soils that were excavated as part of the removal of the UST were screened using a PID, for evidence of contamination. Soils were also inspected visually for evidence of contamination (staining, free product, etc.). Soils on the sidewalls and base of the excavation were screened with a PID by an individual under the direct supervision of the NJDEP Certified Sub-Surface Evaluator. Evidence of contamination was noted during excavation of soils surrounding the UST and soils were subsequently removed.

2.3 SOIL AND GROUNDWATER SAMPLING

On 10 December 1991, one groundwater sample was collected from each monitoring well and analyzed by Environmental Profile Laboratories for volatile organic compounds plus 15 tentatively identified compounds (VO+15) and lead.

On 26 October 1992, one groundwater sample was collected from each monitoring well and analyzed by Environmental Profile Laboratories for VO+15 and lead.

On 2 February 1993, four post excavation soil samples were collected from the bottom and north side wall of the excavation and analyzed by U.S. Army Fort Monmouth Laboratory (FML) for total petroleum hydrocarbons (TPHC). In addition, on 8 February 1993, two post excavation soil samples were collected from the east side wall of the excavation and analyzed by FML for TPHC.

On 24 February 1993, 23 post-excavation soil samples were collected from the side walls of the excavation and analyzed by FML for TPHC and 21st Century Laboratories for VO+15 and lead.

On 21 April 1993, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for VO+15, base neutral compounds plus 15 tentatively identified compounds (BN+15) and lead.

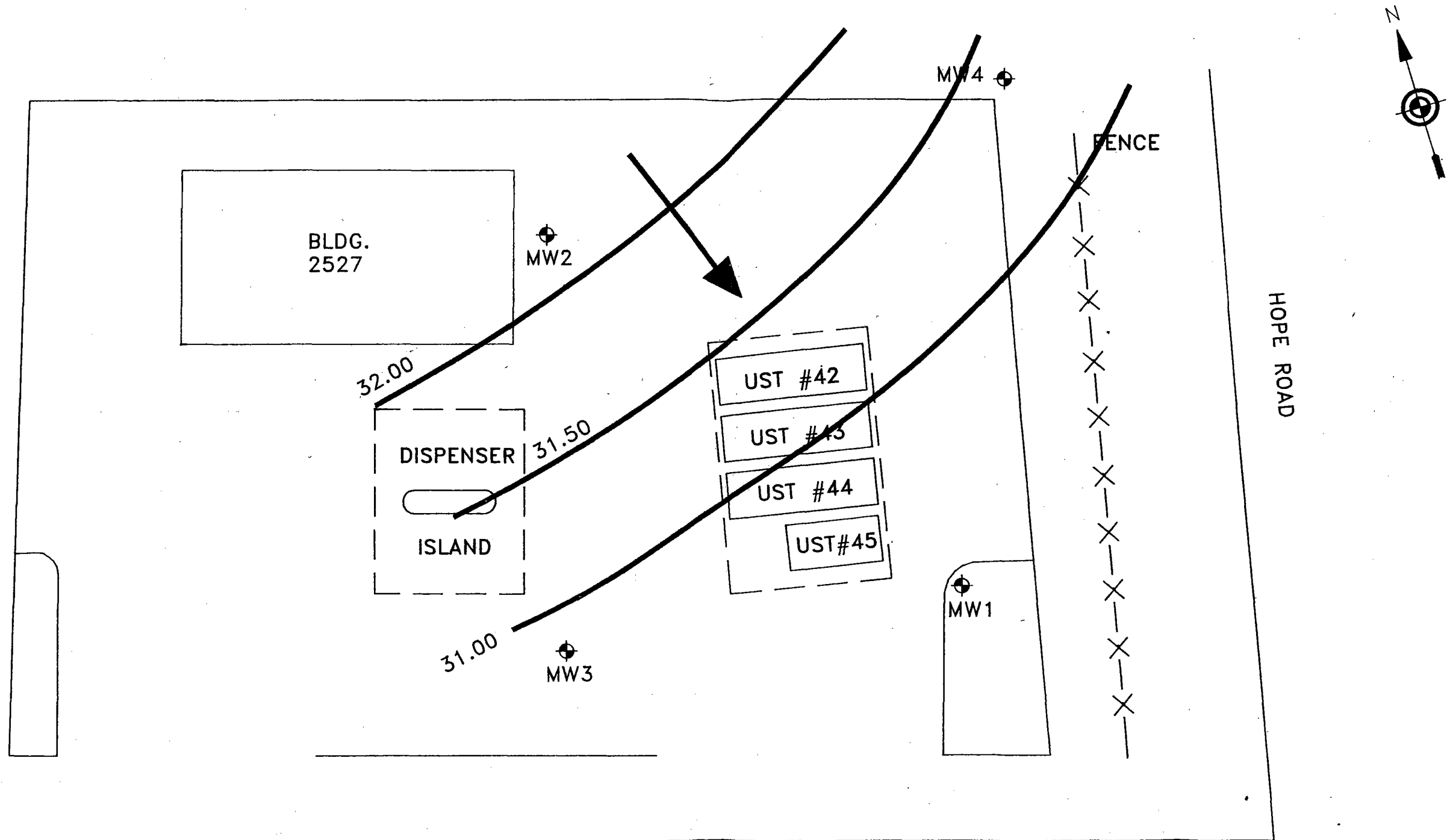


On 3 February 1994, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for VO+15 and lead.

On 31 March 1994, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for VO+15 and lead.

A summary of sampling activities including parameters analyzed is provided in Table 2-1. Figure 2-1 depicts the location of the post-excavation soil samples. Figure 2-2 depicts the locations of the monitoring wells. The post-excavation soil samples were collected using decontaminated stainless steel scoops and groundwater samples were collected using decontaminated teflon bailers. Following soil and groundwater sampling activities, the samples were chilled and delivered to the applicable testing laboratory.

The frequency of sampling and parameters analyzed were consistent with the applicable NJDEP regulations at the date of closure, which were the "Technical Requirements for Site Remediation" (NJAC 7:26E-1 et seq., dated May 1992).



LEGEND



MONITORING WELL

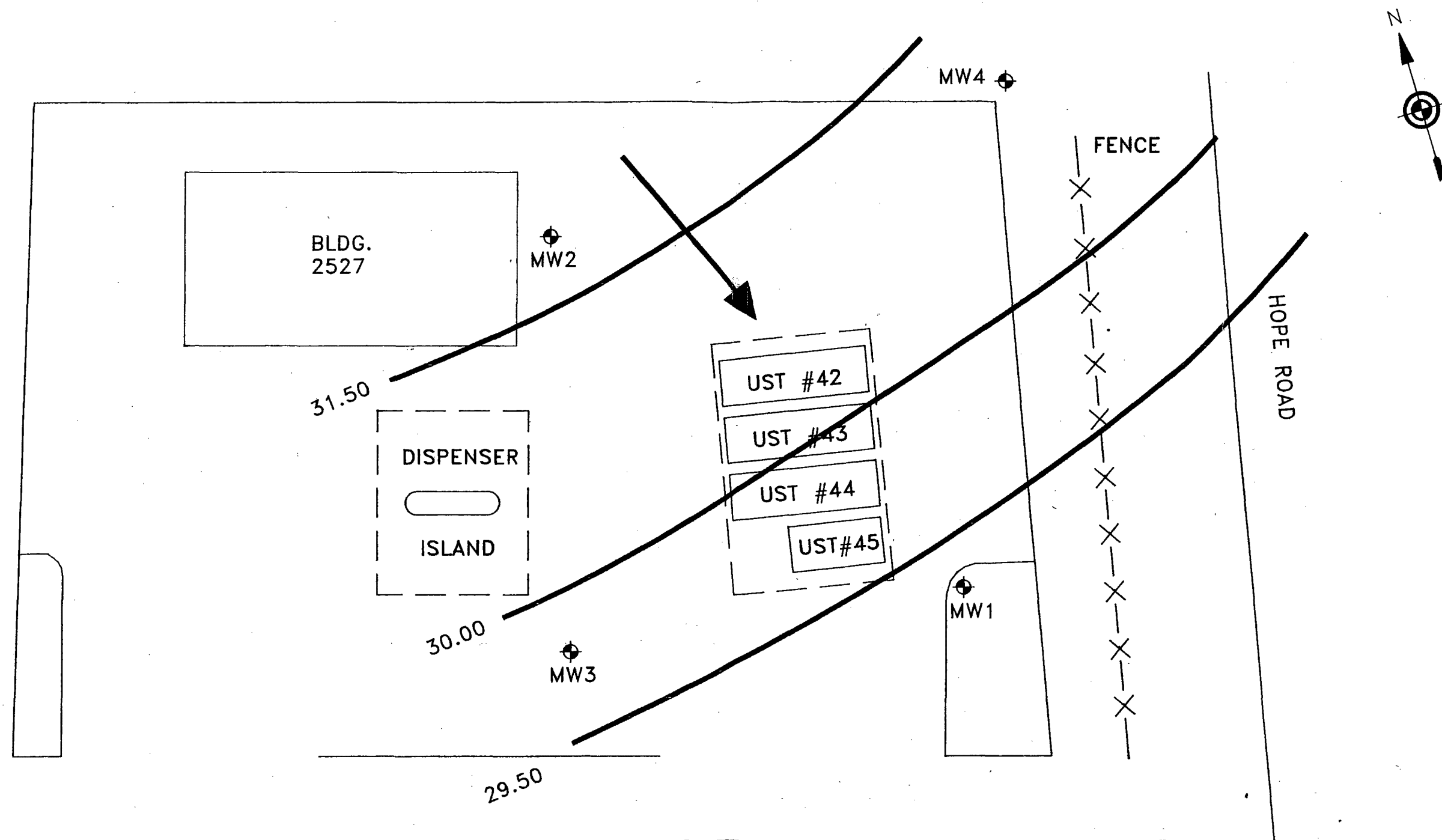


PROJECT NAME
UNDERGROUND STORAGE TANK CLOSURE
AND SITE INVESTIGATION REPORT
BUILDING 2567 - UST NOS. 42-45
FORT MONMOUTH, NEW JERSEY
CLIENT NAME
U.S. ARMY - FORT MONMOUTH
DIRECTORATE OF PUBLIC WORKS

GROUNDWATER CONTOUR MAP
(DATA COLLECTED 1/10/94)

DATE: 7/1/94

FIGURE #: 2-4



LEGEND



MONITORING WELL

MW3

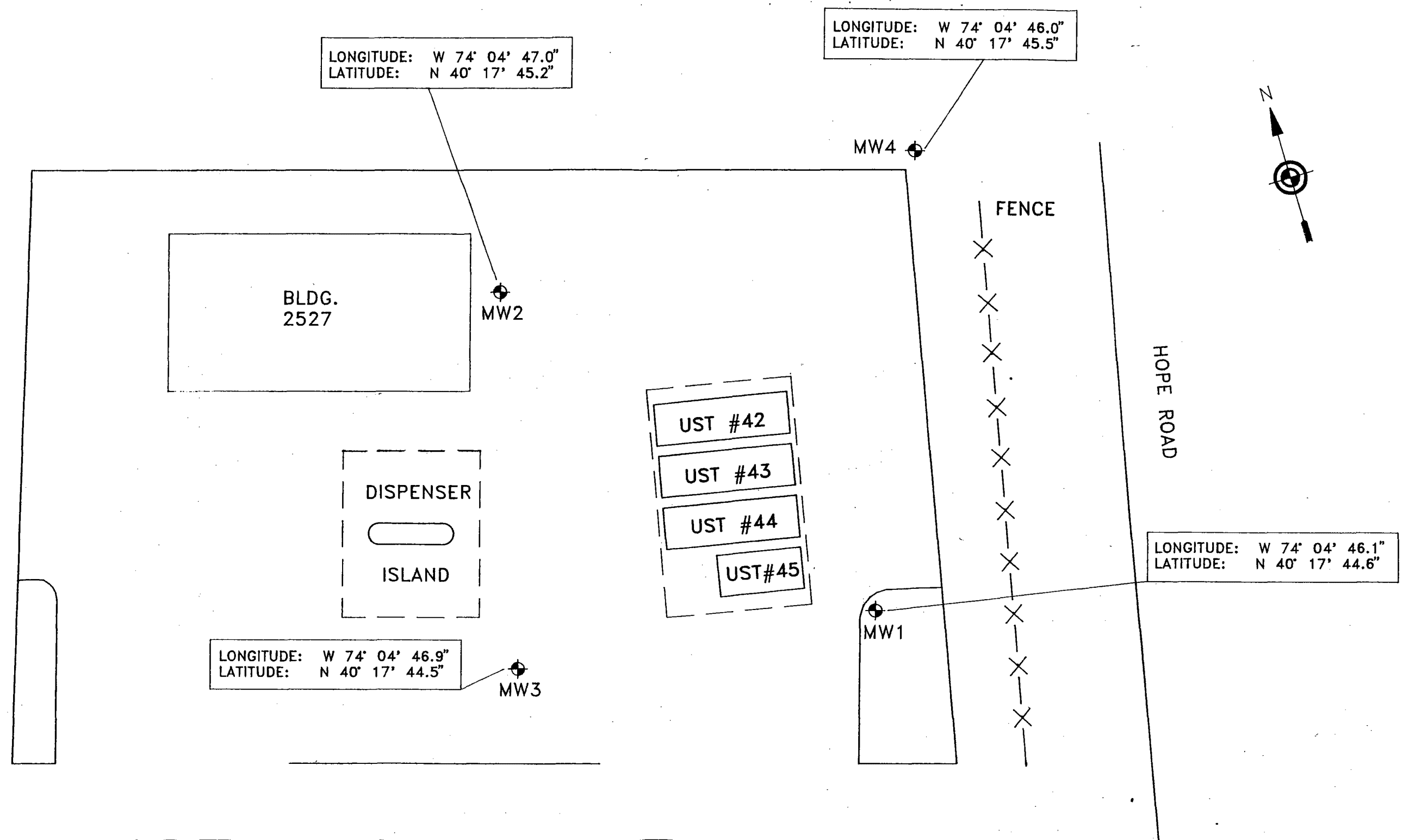


PROJECT NAME: UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT
 BUILDING 2567 - UST NOS. 42-45
 FORT MONMOUTH, NEW JERSEY
 CLIENT NAME: U.S. ARMY - FORT MONMOUTH
 DIRECTORATE OF PUBLIC WORKS

GROUNDWATER CONTOUR MAP
 (DATA COLLECTED 12/10/91)

DATE: 7/1/94

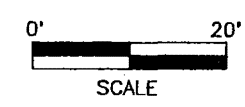
FIGURE #: 2-3



LEGEND

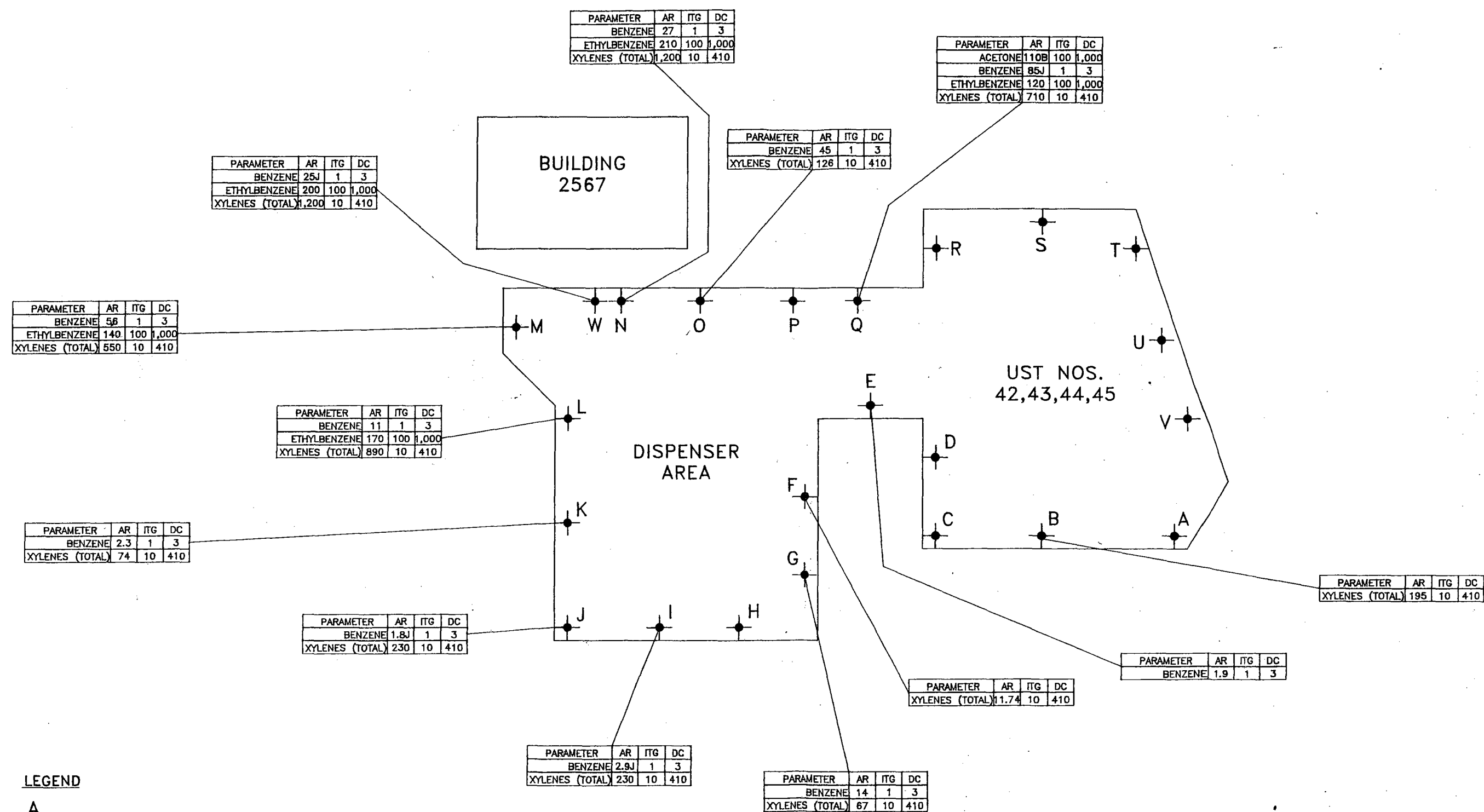
MW3

MONITORING WELL



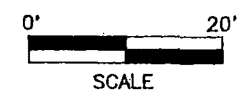
MANAGERS DESIGNERS/CONSULTANTS	PROJECT NAME: UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT BUILDING 2567 - UST NOS. 42-45 FORT MONMOUTH, NEW JERSEY	WELL LOCATION MAP	
	CLIENT NAME: U.S. ARMY - FORT MONMOUTH DIRECTORATE OF PUBLIC WORKS	DATE: 7/1/94	FIGURE #: 2-2

REVISION # 000 DATE: 2/9/94
 FILE NAME: B7567-MW2-DRAWN BY: B. HIG



LEGEND

- SOIL SAMPLING LOCATION
- AR - ANALYTICAL RESULT (MG/KG)
- ITG - NJDEP-IMPACT TO GROUNDWATER SOIL CLEANUP CRITERIA
- DC - NJDEP-DIRECT CONTACT SOIL CLEANUP CRITERIA
- J - INDICATES ESTIMATED VALUE
- B - INDICATES ALSO PRESENT IN BLANK



MANAGERS DESIGNERS/CONSULTANTS

PROJECT NAME: UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT
BUILDING 2567 - UST NOS. 42-45
FORT MONMOUTH, NEW JERSEY
CLIENT NAME: U.S. ARMY - FORT MONMOUTH
DIRECTORATE OF PUBLIC WORKS

POST-EXCAVATION SOIL SAMPLING LOCATIONS

DATE: 6/9/94

FIGURE #: 2-1

TABLE 2-1
SUMMARY OF POST-EXCAVATION SOIL SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Depth (Feet BGS)	Sample Type	Analytical Parameters	Sampling Method
# 1	1140.1	2/2/93	Soil	3	Post Excavation	TPHC	Stainless Steel Scoop
# 2	1140.2	2/2/93	Soil	3	Post Excavation	TPHC	Stainless Steel Scoop
# 3	1140.3	2/2/93	Soil	12	Post Excavation	TPHC	Stainless Steel Scoop
# 4	1140.4	2/2/93	Soil	12	Post Excavation	TPHC	Stainless Steel Scoop

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Depth (Feet BGS)	Sample Type	Analytical Parameters	Sampling Method
S-1	1142.3	2/8/93	Soil	4	Post Excavation	TPHC	Stainless Steel Scoop
S-2	1142.4	2/8/93	Soil	2	Post Excavation	TPHC	Stainless Steel Scoop
S-3 Duplicate	1142.4	2/8/93	Soil	2	Post Excavation	TPHC	Stainless Steel Scoop
S-4 Spike	1142.4	2/8/93	Soil	2	Post Excavation	TPHC	Stainless Steel Scoop

Abbreviation:

TPHC: - Total Petroleum Hydrocarbons.

TABLE 2-1 (CONTINUED)

**SUMMARY OF POST-EXCAVATION SOIL SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Type	Analytical Parameters	Sampling Method
A	1151.1	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
B	1151.2	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
C	1151.3	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
D	1151.4	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
E	1151.5	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
F	1151.6	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
G	1151.7	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
H	1151.8	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
I	1151.9	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
J	1151.10	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
K	1151.11	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
L	1151.12	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
M	1151.13	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
N	1151.14	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
O	1151.15	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop
P	1151.16	2/24/93	Soil	Post Excavation	TPHC	Stainless Steel Scoop

Abbreviation:

TPHC: - Total Petroleum Hydrocarbons.

TABLE 2-1 (CONTINUED)
SUMMARY OF POST-EXCAVATION SOIL SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Type	Analytical Parameters	Sampling Method
Q	1151.17	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
R	1151.18	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
S	1151.19	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
T	1151.20	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
U	1151.21	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
V	1151.22	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
W	1151.23	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
Duplicate	1151.23 Dup	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop
Spike	1151.23 Spike	2/24/93	Soil	Post-Excavation	TPHC	Stainless Steel Scoop

Abbreviation:

TPHC: - Total Petroleum Hydrocarbons.

TABLE 2-1 (CONTINUED)

**SUMMARY OF POST-EXCAVATION SOIL SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Type	Analytical Parameters	Sampling Method
A	A0995	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
B	A0996	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
C	A0997	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
D	A0998	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
E	A0999	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
F	A1000	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
G	A1001	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
H	A1002	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
I	A1003	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
J	A1004	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
K	A1005	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
L	A1006	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
M	A1007	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
N	A1008	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
O	A1009	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
P	A1010	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
Q	A1011	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
R	A1012	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
S	A1013	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
T	A1014	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop

TABLE 2-1 (CONTINUED)

**SUMMARY OF POST-EXCAVATION SOIL SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Type	Analytical Parameters	Sampling Method
U	A1015	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
V	A1016	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
W	A1017	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
Trip Blank	A1018	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop
Field Blank	A1019	2/24/93	Soil	Post-Excavation	VO+15, LEAD	Stainless Steel Scoop

Abbreviation:

VO+15: - Volatile Organic Analysis Plus 15 tentatively identified compounds.

TABLE 2-2
SUMMARY OF GROUNDWATER SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Type	Analytical Parameters	Sampling Method
MW-1	6944.8	12/10/91	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-2	6944.9	12/10/91	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-3	6944.10	12/10/91	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-4	6944.11	12/10/91	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-1	9173.15	10/26/92	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-1 (Dup)	9173.16	10/26/92	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-2	9173.17	10/26/92	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-3	9173.18	10/26/92	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-4	9173.19	10/26/92	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-1	A1634	4/21/93	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-1 (Dup)	A1635	4/21/93	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-2	A1636	4/21/93	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-3	A1637	4/21/93	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-4	A1633	4/21/93	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-1	A1745	4/28/93	Aqueous	Monitoring Well	BN+15	Decontaminated Teflon Bailer
MW-2	A1747	4/28/93	Aqueous	Monitoring Well	BN+15	Decontaminated Teflon Bailer
MW-3	A1746	4/28/93	Aqueous	Monitoring Well	BN+15	Decontaminated Teflon Bailer
MW-4	A1748	4/28/93	Aqueous	Monitoring Well	BN+15	Decontaminated Teflon Bailer
MW-1	B0244	2/3/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer

TABLE 2-2 (CONTINUED)

**SUMMARY OF GROUNDWATER SAMPLING
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.	Lab ID No.	Date of Collection	Matrix	Sample Type	Analytical Parameters	Sampling Method
MW-2	B0243	2/3/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-3	B0245	2/3/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-4	B0242	2/3/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-1	B0658	3/31/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-2	B0660	3/31/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-3	B0659	3/31/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-4	B0656	3/31/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer
MW-4 (Dup)	B0657	3/31/94	Aqueous	Monitoring Well	Lead, VO+15	Decontaminated Teflon Bailer

Abbreviations:

VO+15: - Volatile organic analysis plus 15 tentatively identified compounds.
 BN+15: - Base neutral analysis plus 15 tentatively identified compounds.
 DUP: - Duplicate Sample.



SECTION 3.0

CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL AND GROUNDWATER SAMPLING RESULTS

To evaluate soil conditions following removal of the USTs and associated soils, the post-excavation sample results were compared to NJDEP ITGW and RDC Soil Cleanup Criteria (N.J.A.C. 7:26D and revisions dated 3 February 1994). Summaries of analytical results for soils are presented in Table No. 3-1.

To evaluate groundwater conditions following removal of the USTs and associated soils, analytical results from the groundwater samples were compared to NJDEP Class II-A Ground Water Quality Criteria (N.J.A.C. 7:9-6.4, 6.8 and Table 1). A summary of the analytical results and comparison to NJDEP Class II Groundwater Cleanup Standards is provided in Table No. 3-2.

A summary of the analytical methods used and quality assurance information is provided in Table 3-3. The analytical data package summary is provided in Appendix E. The full data package, including associated quality control and chromatograph data are on file at U.S. Army Fort Monmouth, DPW.

Soil

On 2 February 1993, four post excavation soil samples were collected from the bottom and north sidewall of the excavation and analyzed by U.S. Army Fort Monmouth Laboratory (FML) for total petroleum hydrocarbons (TPHC). In addition, on 8 February 1993, two post excavation soil samples were collected from the east sidewall of the excavation and analyzed by FML for TPHC. In accordance with NJDEP requirements, those samples which exhibited a concentration of TPHC exceeding 1,000 milligrams per kilogram (mg/kg) would have been also analyzed for VO+15. Based on the concentrations of TPHC detected in the post excavation samples, no samples were analyzed for VO+15.

On 24 February 1993, 23 post-excavation soil samples were collected from the sidewalls of the excavation and analyzed by FML for TPHC and 21st Century Laboratories for VO+15 and lead. TPHC was detected in all samples, although only sample L (4539.3 mg/kg) exceeded the 1,000 mg/kg requirement. Lead was detected in samples A (129 mg/kg), B (55.1 mg/kg), C (15 mg/kg), F (19.6 mg/kg), G (37.4 mg/kg), H (15.2 mg/kg), I (39 mg/kg), J (15.5 mg/kg), K (6.19 mg/kg), L (25.8 mg/kg), M (87.5 mg/kg), N (49.3 mg/kg), O (92.5 mg/kg), R (7.77 mg/kg), S (10.8 mg/kg), T (9.38 mg/kg), V (22.7 mg/kg) and W (47.2 mg/kg). Benzene was

TABLE 3-1
SUMMARY OF ANALYTICAL RESULTS FOR SOILS
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.		#1	#2	#3	#4	S-1	S-2	S-3 Duplicate	S-4 Spike	A	B	C	D	E	F	NJDEP Impact to Groundwater Soil Cleanup Criteria	Residential Direct Contact Soil Cleanup Criteria
Lab ID No.		1140.1	1140.2	1140.3	1140.4	1142.3	1142.4	1142.4	1142.4	1151.1	1151.2	1151.3	1151.4	1151.5	1151.6		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Type		PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE		
Date of Collection		2/2/93	2/2/93	2/2/93	2/2/93	2/8/93	2/8/93	2/8/93	2/8/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93		
Analytical Parameter	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPHC		65.1	ND	ND	ND	141	7.9	2.0	382	9.1	31	31.4	37.4	41.5	44.1	NC*	NC*

Sample ID No.		G	H	I	J	K	L	M	N	O	P	Q	R	S	T	NUDEP Impact to Groundwater Soil Cleanup Criteria	Residential Direct Contact Soil Cleanup Criteria
Lab ID No.		1151.7	1151.8	1151.9	1151.10	1151.11	1151.12	1151.13	1151.14	1151.15	1151.16	1151.17	1151.18	1151.19	1151.20		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Type		PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE		
Date of Collection		2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/8/93	2/8/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93		
Analytical Parameter	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
TPHC		50.4	53.4	28.9	66.3	90.4	4539.3	290.5	246.3	279.6	151.2	362.7	147.8	59.2	120.5	NC*	NC*

Abbreviations:

NC*: - No cleanup criterion has been proposed by NJDEP; however, the proposed NJDEP subsurface cleanup criterion for total organic compounds is 10,000 mg/kg.
PE: - Post Excavation
TPHC: - Total petroleum hydrocarbons
mg/kg: - Milligrams per kilogram

TABLE 3-1 (CONTINUED)

**SUMMARY OF ANALYTICAL RESULTS FOR SOILS
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.		U	V	W	W-Duplicate	W-Spike	NJDEP Impact to Groundwater Soil Cleanup Criteria
Lab ID No.		1151.21	1151.22	1151.23	1151.23 Dup	1151.23 Spike	
Matrix		Soil	Soil	Soil	Soil	Soil	
Sample Type		PE	PE	PE	PE	PE	
Date of Collection		2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	
Analytical Parameter	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPHC		187.4	217.3	321.5	307	1043.1	NC*

Abbreviations:

- NC*: - No cleanup criterion has been proposed by NJDEP; however, the proposed NJDEP subsurface cleanup criterion for total organic compounds is 10,000 mg/kg.
 PE: - Post Excavation
 TPHC: - Total petroleum hydrocarbons
 mg/kg: - Milligrams per kilogram

TABLE 3-1 (CONTINUED)

SUMMARY OF ANALYTICAL RESULTS FOR SOILS
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.		A	B	C	D	E	F	G	H	I	J	K	L	M	N	NJDEP Impact to Groundwater Soil Cleanup Criteria	Residential Direct Contact Soil Cleanup Criteria
Lab ID No.		A0995	A0996	A0997	A0998	A0999	A1000	A1001	A1002	A1003	A1004	A1005	A1006	A1007	A1008		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Type		PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE		
Date of Collection		2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93		
Analytical Parameter		Units															
Volatile Organic Compounds																	
Acetone	mg/kg	0.014	ND B	0.35	0.020	0.14	ND	ND	ND	ND	ND	ND	ND	ND	39 JB	100	1,000
Methylene Chloride	mg/kg	ND	ND B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	49
2-Butanone	mg/kg	ND	ND	0.069	ND	ND	ND	ND	0.39J	2.4J	ND	ND	ND	ND	ND	50	1,000
Benzene	mg/kg	ND	ND	ND	ND	1.9	0.68J	14	0.25J	2.9 J	1.8J	2.3	11	5.6	27	1	3
Toluene	mg/kg	ND	ND	0.0036J	ND	0.044	1.0	14	1.2	30	68	32	320	110	460	500	1,000
Ethylbenzene	mg/kg	ND	44	ND	ND	0.02 J	0.78J	9.3	1.4	45	37	14	170	140	210	100	1,000
Xylenes (Total)	mg/kg	ND	195	0.024	0.019	0.116	11.74	67	8.6	230	229	74	890	550	1,200	10	410
Inorganics																	
Lead	mg/kg	129	55.1	15.0	ND	ND	19.6	37.4	15.2	39.0	15.5	6.19	25.8	87.5	49.3	NC	400

TABLE 3-1 (CONTINUED)

SUMMARY OF ANALYTICAL RESULTS FOR SOILS
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.		O	P	Q	R	S	T	U	V	W	Trip Blank	Field Blank	NJDEP Impact to Groundwater Soil Cleanup Criteria	Residential Direct Contact Soil Cleanup Criteria
Lab ID No.		A1009	A1010	A1011	A1012	A1013	A1014	A1015	A1016	A1017	A1018	A1019		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Type		PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE		
Date of Collection		2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93	2/24/93		
Analytical Parameter	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/kg	mg/kg
Volatile Organic Compounds														
Acetone		ND	ND	110B	0.059B	0.14B	0.068B	0.0073JB	0.12B	ND	0.0065JB	3.3B	100	1,000
Methylene Chloride		ND	ND	ND	ND	ND	ND	0.0033JB	0.007J	ND	ND	ND	1	49
2-Butanone		ND	0.018 J	ND	ND	0.037	ND	ND	0.031	ND	ND	ND	50	1,000
Benzene		45	0.032 J	85 J	ND	0.029	0.0023J	ND	0.026	25J	ND	0.038	1	3
Xylene (Total)		126	1.11	710	0.0087J	0.0099J	0.0046J	0.0052J	0.0099J	1200	ND	0.38	10	410
Toluene		11	0.29	220	0.0014J	0.0087	0.0021J	0.0038J	0.0097	450	ND	0.29	500	1,000
Ethylbenzene		29	0.14	120	ND	0.002J	ND	ND	0.002J	200	ND	0.074J	100	1,000
Inorganics														
Lead		92.5	ND	ND	7.77	10.8	9.38	ND	22.7	47.2	ND	ND	NC	400



TABLE 3-1 (CONTINUED)

**ABBREVIATIONS, DATA QUALIFIERS AND NOTES
BUILDING NO. 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Abbreviations:

PE:	-	Post Excavation
NC:	-	No groundwater cleanup criterion has been proposed for this analyte by NJDEP.
ND:	-	Not detected.
mg/kg:	-	Milligrams per Kilogram.

Data Qualifiers:

J:	-	Indicates an estimated value.
B:	-	Indicates also present in blank.

TABLE 3-2

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45**

Sample ID No.		MW-1	MW-2	MW-3	MW-4	NJDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		6944.8	6944.9	6944.10	6944.11	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	
Date of Collection		12/10/91	12/10/91	12/10/91	12/10/91	
Analytical Parameter		Units				
Lead	ug/L	4	ND	ND	5	10
VOLATILE ORGANIC COMPOUNDS						
Methylene Chloride	ug/L	240	7	240	27	2
1,2-Dichloroethane	ug/L	55	ND	ND	ND	2
Benzene	ug/L	2400	3.1	110	ND	1
Xylenes (Total)	ug/L	42.1	ND	200	ND	40
tert-Butyl Alcohol	ug/L	4400	ND	ND	ND	NC
Methyl tert-Butyl Ether	ug/L	2200	ND	69	ND	NC

TABLE 3-2 (CONTINUED)

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.		MW-1	MW-1 (Dup)	MW-2	MW-3	MW-4	Field Blank	Trip Blank	NJDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		9173.15	9173.16	9173.17	9173.18	9173.19	9173.25	9173.26	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	MW	QA	QA	
Date of Collection		10/26/92	10/26/92	10/26/92	10/26/92	10/26/92	10/26/92	10/26/92	
Analytical Parameter		Units							
Lead	ug/L	ND	ND	11	5	ND	NA	NA	10
VOLATILE ORGANIC COMPOUNDS									
Methylene Chloride	ug/L	420 B	130 B	23 B	24	27 B	66 B	5 JB	2
Bromodichloromethane	ug/L	77	ND	ND	ND	ND	ND	ND	NC
1,2-Dichloropropane	ug/L	62	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ug/L	48 J	ND	ND	ND	ND	ND	ND	0.2
Trichloroethene	ug/L	32 J	ND	ND	ND	ND	ND	ND	1
Dibromochloromethane	ug/L	130	ND	ND	ND	ND	ND	ND	10
1,1,2-Trichloroethane	ug/L	140	ND	ND	ND	ND	ND	ND	3
Benzene	ug/L	2800	3200	ND	ND	ND	ND	ND	1
Trans-1,3-Dichloropropene	ug/L	220	ND	ND	ND	ND	ND	ND	0.2
Bromoform	ug/L	140	ND	ND	ND	ND	ND	ND	4
Tetrachloroethene	ug/L	51	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ug/L	170	ND	ND	ND	ND	ND	ND	2
Toluene	ug/L	73	ND	ND	ND	ND	ND	ND	1,000
Chlorobenzene	ug/L	99	ND	ND	ND	ND	ND	ND	2

TABLE 3-2 (CONTINUED)
SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY

Sample ID No.		MW-1	MW-1 (Dup)	MW-2	MW-3	MW-4	Field Blank	Trip Blank	NJDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		9173.15	9173.16	9173.17	9173.18	9173.19	9173.25	9173.26	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	MW	QA	QA	
Date of Collection		10/26/92	10/26/92	10/26/92	10/26/92	10/26/92	10/26/92	10/26/92	
Analytical Parameter		Units							
Ethylbenzene	ug/L	90	ND	ND	ND	ND	ND	ND	700
Styrene	ug/L	84	ND	ND	ND	ND	ND	ND	100
Xylenes (Total)	ug/L	302	57	3 J	3 J	ND	ND	ND	40
1,3-Dichlorobenzene	ug/L	100	ND	ND	ND	ND	ND	ND	600
1,2-Dichlorobenzene	ug/L	120	ND	ND	ND	ND	ND	ND	600
1,4 - Dichlorobenzene	ug/L	120	ND	ND	ND	ND	ND	ND	75
Tert-butyl Alcohol	ug/L	5400	7000	ND	ND	ND	ND	ND	NC
Methyl Tert-butyl Ether	ug/L	1200	1500	ND	ND	ND	ND	ND	NC
Acetone	ug/L	ND	ND	ND	1 J	ND	84	ND	700

Abbreviations:

- NC - No NJDEP Class II-A groundwater cleanup criterion has been proposed for this analyte by NJDEP.
- ND - Not detected.
- NR - Analysis not requested.
- MW - Monitoring Well.
- QA - Quality Assurance sample.
- ug/L - Micrograms per liter.

Data Qualifiers:

- B - Indicates also present in blank.
- J - Indicates an estimated value.

TABLE 3-2 (CONTINUED)

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.		MW-1	MW-1 Dup	MW-2	MW-3	MW-4	Field Blank	Trip Blank	NJDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		A 1634	A 1635	A 1636	A 1637	A 1633	A 1638	A 1639	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	MW	MW	MW	
Date of Collection		4/21/93	4/21/93	4/21/93	4/21/93	4/21/93	4/21/93	4/21/93	
Analytical Parameter		Units							
Lead	ug/L	70	ND	ND	60	ND	ND	NA	10
VOLATILE ORGANIC COMPOUNDS									
Acetone	ug/L	ND	28 JB	2.5 JB	7.7 JB	2.4 JB	2.5 JB	ND	700
Methylene Chloride	ug/L	16 J	ND	ND	ND	ND	3.8 J	4.8 J	2
Benzene	ug/L	520	470	ND	180	ND	ND	ND	1
Toluene	ug/L	ND	ND	ND	15	ND	ND	ND	1,000
Methyl Tertiary Butyl Ether	ug/L	890	970	ND	27	ND	ND	ND	NC
Tert-butyl alcohol	ug/L	470 J	640	ND	ND	ND	ND	ND	NC
Xylenes (Total)	ug/L	ND	ND	2.0 J	74.2 J	ND	ND	ND	40

Abbreviations:

MW - Monitoring Well.
 ND - Not detected.
 J - Indicates an estimated value.
 ug/L - Micrograms per liter.

TABLE 3-2 (CONTINUED)

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.		MW-1	MW-2	MW-3	MW-4	Field Blank	NJDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		A 1745	A 1747	A 1746	A 1748	A 1749	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	QA	
Date of Collection		4/28/93	4/28/93	4/28/93	4/28/93	4/28/93	
Analytical Parameter		Units					
BASE NEUTRAL COMPOUNDS							
Butylbenzylphthalate	ug/L	12	18	12	10	ND	NC
Naphthalene	ug/L	ND	ND	1.2 J	ND	ND	NC
Bis(2-Ethylhexyl)Phthalate	ug/L	ND	ND	2.8 J	ND	ND	30

Abbreviations:

MW - Monitoring Well.
 NC - No NJDEP Class II-A groundwater criterion has been proposed for this analyte by NJDEP.
 ug/L - Micrograms per liter.
 QA - Quality Assurance

Data Qualifiers:

ND - Not detected.
 J - Indicates an estimated value.

TABLE 3-2 (CONTINUED)

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.		MW-1	MW-2	MW-3	MW-4	Field Blank	Trip Blank	NIDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		B 0244	B 0243	B 0245	B 0242	B 0246	B 0241	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	QA	QA	
Date of Collection		2/3/94	2/3/94	2/3/94	2/3/94	2/3/94	2/3/94	
Analytical Parameter		Units						
INORGANIC								
Lead	ug/L	ND	260	41	ND	ND	NA	10
VOLATILE ORGANIC COMPOUNDS								
Methylene Chloride	ug/L	26 JB	4.0 J	4.4 J	5.0	7.3	5.2	2
Vinyl Acetate	ug/L	ND	ND	ND	1.3 J	ND	ND	NC
Benzene	ug/L	21 J	19	19	14	ND	ND	1
Toluene	ug/L	66	55	43	56	ND	ND	1000
Ethylbenzene	ug/L	16 J	7.4	7.0	8.9	ND	ND	700
Xylenes (Total)	ug/L	41	43	65	60	ND	ND	40
Tert-butyl alcohol	ug/L	28 J	ND	ND	ND	ND	ND	NC
Carbon Disulfide	ug/L	ND	3.1 J	ND	ND	ND	ND	NC
Acetone	ug/L	54 JB	ND	ND	ND	12	ND	700
Methyl tert-butyl ether	ug/L	650	7.0 J	9.1	ND	ND	ND	NC

Abbreviations:

- MW - Monitoring Well.
 NC - No NJDEP Class II-A groundwater cleanup criterion has been proposed for this analyte by NJDEP.
 ND - Not detected.
 J - Indicates an estimated value.
 B - Indicates also present in blank.
 ug/L - Micrograms per liter.

TABLE 3-2 (CONTINUED)

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
BUILDING 2567
UST NOS. 42 TO 45
FORT MONMOUTH, NEW JERSEY**

Sample ID No.		MW-1	MW-2	MW-3	MW-4	MW-4 (Dup)	Field Blank	Trip Blank	NJDEP Class II-A Groundwater Cleanup Criteria
Lab ID No.		B 0658	B 0660	B 0659	B 0656	B 0657	B 0661	B 0662	
Matrix		Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	Aqueous	
Sample Type		MW	MW	MW	MW	MW	QA	QA	
Date of Collection		3/31/94	3/31/94	3/31/94	3/31/94	3/31/94	3/31/94	3/31/94	
Analytical Parameter		Units							
VOLATILE ORGANIC COMPOUNDS									
Xylene (Total)	ug/L	ND	2.5 J	ND	ND	ND	ND	ND	40
Methyl Tert-Butyl Ether (MTBE)	ug/L	10	11	ND	1.3 J	1.3 J	ND	ND	NC
Acetone	ug/L	6.9 J	140 B	ND	ND	4.4 JB	7.2 JB	11 B	700
Methylene Chloride	ug/L	ND	17	ND	2.3 J	2.9 J	2.3 J	3.1 J	2
Tertiary Butyl Alcohol	ug/L	22 J	ND	ND	ND	ND	ND	ND	NC
INORGANIC COMPOUNDS									
Lead	ug/L	ND	ND	25	ND	ND	ND	NA	100

Abbreviations:

NC - No NJDEP Class II-A groundwater cleanup criterion has been proposed for this analyte by NJDEP.
 ND - Not detected.
 NR - Analysis not requested.
 MW - Monitoring Well.
 QA - Quality Assurance sample.
 ug/L - Micrograms per liter.

Data Qualifiers:

B - Indicates also present in blank.
 J - Indicates an estimated value.

TABLE 3-3

ANALYTICAL METHODS/QUALITY ASSURANCE SUMMARY TABLE

UST NO. 2567

BUILDING NO. 42 TO 45

FORT MONMOUTH, NEW JERSEY

Analytical Parameter	No. of Samples Collected	Matrix	Date Collected	Date Analysis Completed	Preservation Method	USEPA SW-846 Analytical Method
TPHC	4	S	2/2/93	2/3/93	Cool to 4°C	418.1
TPHC	4	S	2/8/93	2/8/93	Cool to 4°C	418.1
TPHC	23	S	2/24/93	2/24/93	Cool to 4°C	418.1
VOCs	23	S	2/24/93	2/26/93	Cool to 4°C	USEPA-CLP-IFB
Lead	23	S	2/24/93	2/25/93	Cool to 4°C	6010
Lead	4	Aqueous	12/10/91	12/11/91	Cool to 4°C	418.1
VOCs	4	Aqueous	12/10/91	12/13/91	Cool to 4°C	USEPA-CLP-IFB
Lead	4	Aqueous	10/26/92	10/28/92	Cool to 4°C	418.1
VOCs	4	Aqueous	10/26/92	10/30/92	Cool to 4°C	USEPA-CLP-IFB
Lead	4	Aqueous	4/21/93	4/27/93	Cool to 4°C	418.1
VOCs	4	Aqueous	4/21/93	4/27/93	Cool to 4°C	USEPA-CLP-IFB
BNAs	4	Aqueous	4/28/93	5/12/93	Cool to 4°C	8270
Lead	4	Aqueous	2/3/94	2/7/94	Cool to 4°C	418.1
VOCs	4	Aqueous	2/3/94	2/7/94	Cool to 4°C	USEPA-CLP-IFB
Lead	4	Aqueous	3/31/94	4/5/94	Cool to 4°C	418.1
VOCs	4	Aqueous	3/31/94	4/5/94	Cool to 4°C	USEPA-CLP-IFB

Abbreviations:

USEPA-CLP-IFB

- Volatile samples were analyzed using the method cited in the USEPA-CLP-IFB version 2/88. The CLP volatile method is based on USEPA Method 624 and SW-846.

TPHC

- Total Petroleum Hydrocarbons.

VOCs

- Volatile Organic Compounds.

BNAs

- Base Neutral Acid Extractable Compounds.

C

- Celsius.

detected in samples E (1.9 mg/kg), G (14 mg/kg), I (2.9 mg/kg), J (1.8 mg/kg), K (2.3 mg/kg), L (11 mg/kg), M (5.6 mg/kg), N (27 mg/kg), O (45 mg/kg), Q (8.5 mg/kg) and W (34 mg/kg). Total xylenes were detected in samples B (195 mg/kg), F (11.7 mg/kg), G (67 mg/kg), I (230 mg/kg), J (229 mg/kg), K (74 mg/kg), L (890 mg/kg), M (550 mg/kg), N (1200 mg/kg), O (126 mg/kg), Q (710 mg/kg) and W (1200 mg/kg). Ethyl benzene was detected in samples L (170 mg/kg), M (140 mg/kg), N (210 mg/kg), Q (120 mg/kg) and W (170 mg/kg). All other samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP ITGW or RDC Soil Cleanup Criteria.

Groundwater

On 10 December 1991, one groundwater sample was collected from each monitoring well and analyzed by Environmental Profile Laboratories for volatile organic compounds plus 15 tentatively identified compounds (VO+15) and lead. Benzene was detected in MW-1 (2400 ug/l), MW-2 (3 ug/l) and MW-3 (110 ug/l), 1,2-dichloroethane in MW-1 (55 ug/l), total xylene in MW-1 (42 ug/l) and MW-3 (200 ug/l), and methylene chloride in MW-1 (240 ug/l), MW-2 (7 ug/l), MW-3 (240 ug/l) and MW-4 (27 ug/l). These concentrations of contaminants exceed NJDEP Class II-A Ground Water Quality Criteria. All other samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP Class II-A Ground Water Quality Criteria.

On 26 October 1992, one groundwater sample was collected from each monitoring well and analyzed by Environmental Profile Laboratories for VO+15 and lead. Due to an unusual amount of contaminants present which exceeded NJDEP Class II-A ground water quality criteria in MW-1, a duplicate sample was analyzed. The MW-1 duplicate sample indicated concentrations of benzene (3200 ug/l), total xylene (57 ug/l) and methylene chloride (130 ug/l). In addition, methylene chloride was detected in MW-2 (23 ug/l), MW-3 (24 ug/l) and MW-4 (27 ug/l), and lead in MW-2 (11 ug/l) which exceed NJDEP Class II-a ground water quality criteria. All other samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP Class II-A ground water quality criteria. Class II Groundwater Cleanup Standards.

On 21 April 1993, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for VO+15 and lead. Lead was detected in MW-1 (70 ug/l) and MW-3 (60 ug/l) in concentrations which exceed NJDEP Class II-A ground water quality criteria. In addition, benzene was detected in MW-1 (520 ug/l) and MW-1 duplicate (470 ug/l), total xylene in MW-3 (74.2 ug/l) and methylene chloride in MW-1 (16 ug/l). Methylene chloride was also detected in the field blank (3.8 ug/l) and the trip blank (4.8 ug/l). The presence of methylene chloride in these quality assurance samples indicates laboratory induced contamination of sample may have occurred and is not related to the operation of the UST system. All other samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP Class II-A ground water quality criteria.

On 28 April 1993, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for base neutral compounds plus 15 tentatively identified compounds (BN+15). All samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP Class II-A Ground Water Quality Criteria.

On 3 February 1994, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for VO+15 and lead. Lead was detected in MW-2 (260 ug/l) and MW-3 (41 ug/l) in concentrations which exceed NJDEP Class II-A ground water quality criteria. Benzene was detected in MW-1 (21 ug/l), MW-2 (19 ug/l), MW-3 (19 ug/l) and MW-4 (14 ug/l). Total xylene was detected in MW-1 (42 ug/l), MW-2 (43 ug/l), MW-3 (65 ug/l) and MW-4 (60 ug/l). Methylene chloride was detected in MW-1 (26 ug/l), MW-2 (4 ug/l), MW-3 (4.4 ug/l) and MW-4 (5 ug/l). All other samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP Class II-A ground water quality criteria.

On 31 March 1994, one groundwater sample was collected from each monitoring well and analyzed by 21st Century Laboratories for VO+15 and lead. Lead was detected in MW-3 (25 ug/l) in concentrations which exceed NJDEP Class II-A ground water quality criteria. Methylene chloride was detected in MW-2 (17 ug/l), MW-4 (2.3 ug/l) and MW-4 duplicate (2.9 ug/l). Since methylene chloride was also detected in the field blank (2.3 ug/l) and the trip blank (3.1 ug/l), its presence indicates laboratory induced contamination of sample may have occurred and is not related to the operation of the UST system. All other samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP Class II-A ground water quality criteria.

3.2 CONCLUSIONS AND RECOMMENDATIONS

Prior to the closure of UST No. 42, 43, 44 and 45, four monitoring wells were installed and sampled. Based on the analysis of groundwater samples elevated volatile and semivolatile parameters were detected. The most notable of the parameters were benzene (3 ug/L to 3,200 ug/L) and total xylenes (55 ug/L to 200 ug/L).

During closure, the tanks were observed to be intact and potentially contaminated soil was excavated until further removal would threatened the integrity of structure and roadways or until field screening indicated sufficient reduction in contaminant levels. Upon completion the excavation was backfilled with clean material and the surface paved.

Monitoring well samples, obtained after the closure, indicated significant reductions in groundwater contamination. Samples obtained on 31 March 1994 indicated the presence of only methylene chloride above NJDEP Class IIA groundwater quality criteria.

The reduction in groundwater contaminant levels is attributable to the following:

- The contaminant sources, Tank Nos. 42 to 45, 936 cubic yards of soil and the pump island piping were successfully removed. The analytical testing of soil has indicated that limited residual contamination exists in the soil below the surface.
- The site was backfilled with clean material and paved. The asphalt pavement caps the site precludes the infiltration of precipitation and other surface water to the ground; which reduces the potential for residual soil contaminants leaching from the soil into ground water.

Based on the above actions that have been implement on-site, the future impact of the site on the groundwater is considered to be insignificant. On 23 September 1994 a fifth monitoring well (MW-5) was installed to assess groundwater downgradient from the site. The four on-site and one downgradient wells will be sampled quarterly and analyzed for VO+15, xylenes, methyl tertiary butyl ether, tertiarybutyl alcohol and lead using Method 524.2. Information regarding these samples will be forwarded to the State.

APPENDIX C

**Results of Long-Term Groundwater Monitoring Program, Fort Monmouth,
Building 2567, Fort Monmouth, New Jersey (Letter Report), ATC Associates,
May 2000**

May 19, 2000

New Jersey Department of Environmental Protection
Bureau of Federal Case Management
CN 028
401 East State Street
Trenton, New Jersey 08625-1454

**RE: Results of Long-Term Groundwater Monitoring Program
Fort Monmouth, Building 2567
Fort Monmouth, New Jersey
NJDEP Case #89-12-12-1442 and #91-08-27-1414**

Dear Mr. Ian R. Curtis

ATC Associates, Inc. (ATC), on behalf of Fort Monmouth, presents in this letter, a summary report describing the results of the long-term monitoring program conducted for the investigation of the former underground storage tank (UST) system at Building 2567 at Fort Monmouth, New Jersey. Provided below is a brief site history and summary of previous investigations, excerpted from the *Site Investigation Report* dated January 1995, prepared by Weston for the Fort Monmouth, Building 2567. The site history and summary of previous investigations is followed by a description of the results of the long-term monitoring program to date.

Site History

Building 2567 is located off Laboratory Road in the Charles Wood area of Fort Monmouth. A site map detailing the former UST locations is provided as Figure 1. Building 2567 is used as the installation gas station. On 12 December 1989, the New Jersey Department of Environmental Protection (NJDEP) Hotline was contacted due to a suspected release at the subject facility. The facility was assigned NJDEP case #89-12-12-1442. The release was investigated by performing a tightness test on 30 January 1990. The suspected line passed the test.

On 15 and 16 January 1991, tightness tests were performed on the facility's USTs. One UST failed. The NJDEP Hotline was contacted and the site was assigned case #91-08-27-1414. In response to the suspected release, four groundwater monitoring wells (MW-1 to MW-4) were installed at the subject facility on 9 October 1991. Groundwater was encountered between 2.5 to 5 feet bgs. Subsequent monitoring events indicated the groundwater flow direction was to the southeast.

Groundwater samples were collected from the four monitoring wells on 10 December 1991. Analysis for volatile organic compounds with a library search of fifteen tentatively identified compounds (VO+10) and total lead indicated no compounds were detected above the NJDEP Groundwater Quality Standards (GWQS), except for benzene, 1,2-dichloroethene, total xylenes, and methylene chloride.

The four monitoring wells were subsequently sampled on 26 October 1992, 21 April 1993, 3 February 1994, and 31 March 1994. Analytical results from these sampling events indicated that concentrations of lead, benzene, total xylenes, and methylene chloride were detected above the NJDEP GWQS.

On 2 to 5 February 1993, the four subject USTs were closed according to NJDEP regulations. Based on field screening, approximately 936 cubic yards of potentially impacted soils were removed from the site. Groundwater was encountered during excavation activities at approximately 7 feet below the ground surface (bgs).

On 2 February 1993 and 24 February 1993, soil samples were collected from the excavation area. Analysis for total petroleum hydrocarbons (TPH) and lead indicated no samples reported concentrations above the NJDEP GWQS. However, thirteen of the twenty-three samples reported volatile organic compounds above the NJDEP GWQS. Concentrations of xylenes, benzene, and ethylbenzene were detected above the NJDEP GWQS.

On 23 September 1994, an additional monitoring well (MW-5) was installed downgradient from the site.

The Site Investigation Report in January 1995 recommended no further action for the soils due to source removal including approximately 936 cubic yards of soil and the excavation was backfilled with clean fill and capped with asphalt reducing the potential for residual soil contaminants to leach into the groundwater. The report recommended further groundwater monitoring to determine flow patterns on the site.

Results of the Long-Term Monitoring Program

As part of the long-term monitoring program for Building 2567, the five existing monitoring wells (MW-1 through MW-5) were sampled on 5 May 1995, 15 August 1995, 21 November 1995, 20 February 1996, 7 January 1997 and 11 April 1997. Prior to sampling, each well was gauged and groundwater elevations were then calculated from depth-to-water measurements. Groundwater elevation data are summarized in Table 1, located in Appendix A of this report. A groundwater elevation contour map showing groundwater flow direction based on the most recent groundwater elevation measurements (April 1997) is provided as Figure 1, located in Appendix A. Groundwater flow direction was determined to be to the southeast. This groundwater flow direction has remained consistent throughout the monitoring period. A groundwater sampling summary is provided in Appendix A as Table 2. After gauging each well, the wells were purged and sampled. All sampling procedures were conducted in accordance with the

NJDEP Field Sampling Procedures Manual. The samples were analyzed for VO+15 using EPA Method 624 and total lead.

The analytical results from each sampling event were compared to the NJDEP Groundwater Quality Standards (GWQS). Each constituent that exceeded the established GWQS was then compared to its maximum background concentration, as identified in the 1995 *Site Investigation Report* prepared by Weston.

A review of the historical groundwater analytical results indicates that concentrations of benzene, xylenes, methyl tertiary butyl ether (MTBE), and methylene chloride have been detected during these sampling events above the NJDEP GWQS. The highest concentrations have historically been detected in samples collected from MW-3. Methylene chloride has been detected, however, methylene chloride is commonly found as a laboratory contaminant and was also observed in quality control blanks. Concentrations of benzene in samples collected from MW-3 have been decreasing from 94 micrograms per liter ($\mu\text{g/L}$) in May 1995 to not detected in April 1997. The groundwater analytical data, included in Attachment B, is summarized in Attachment A, Tables 3 through 8.

ATC, on behalf of Fort Monmouth, recommends that a determination be made to obtain a conditional No Further Action (NFA) with a Classification Exception Area (CEA). Based on the relatively low concentrations present in the groundwater at the subject site and the lack of potential receptors, ATC believes this site qualifies for a conditional NFA with a CEA. According to the NJDEP document titled "Final Guidance on Designation of Classification Exception Areas", four criteria are necessary to obtain a conditional NFA with a CEA in UST cases. The criteria are as follows:

- Source and source area are remediated (i.e. no soils contamination above the site-specific impact to groundwater criteria and no product remaining);
- Decreasing groundwater contaminant trends are established based upon site-specific groundwater monitoring and a sound technical decision can be made to predict the duration it will take to meet the GWQS;
- Monitoring of groundwater clearly indicates that contaminants have not and will not migrate beyond given boundaries; and
- No receptors are at risk and public water supply is available.

The site may qualify for a conditional NFA with a CEA due to the following:

- The source and impacted soils in the source area have been removed;
- Concentrations of benzene in MW-3 have decreased from the initial concentration of 2,100 $\mu\text{g/L}$ (12/10/91) to not detected (04/11/97);

- CEA boundaries have not been determined, however, ATC believes that contaminants will not migrate beyond given boundaries based on historical data. CEA boundaries need to be determined based on further aquifer characterization, i.e. hydraulic gradient and conductivity;
- No receptors have been identified to date.

If you have any questions or concerns regarding this summary report, please feel free to contact me at (609) 386-8800.

Sincerely,
ATC Associates Inc.

Peter Niculescu
Senior Project Geologist

Edward S. Curry
Project Geologist

Enclosures: Appendix A – Tables and Figures
Appendix B – Analytical Data Reports

cc: Project File

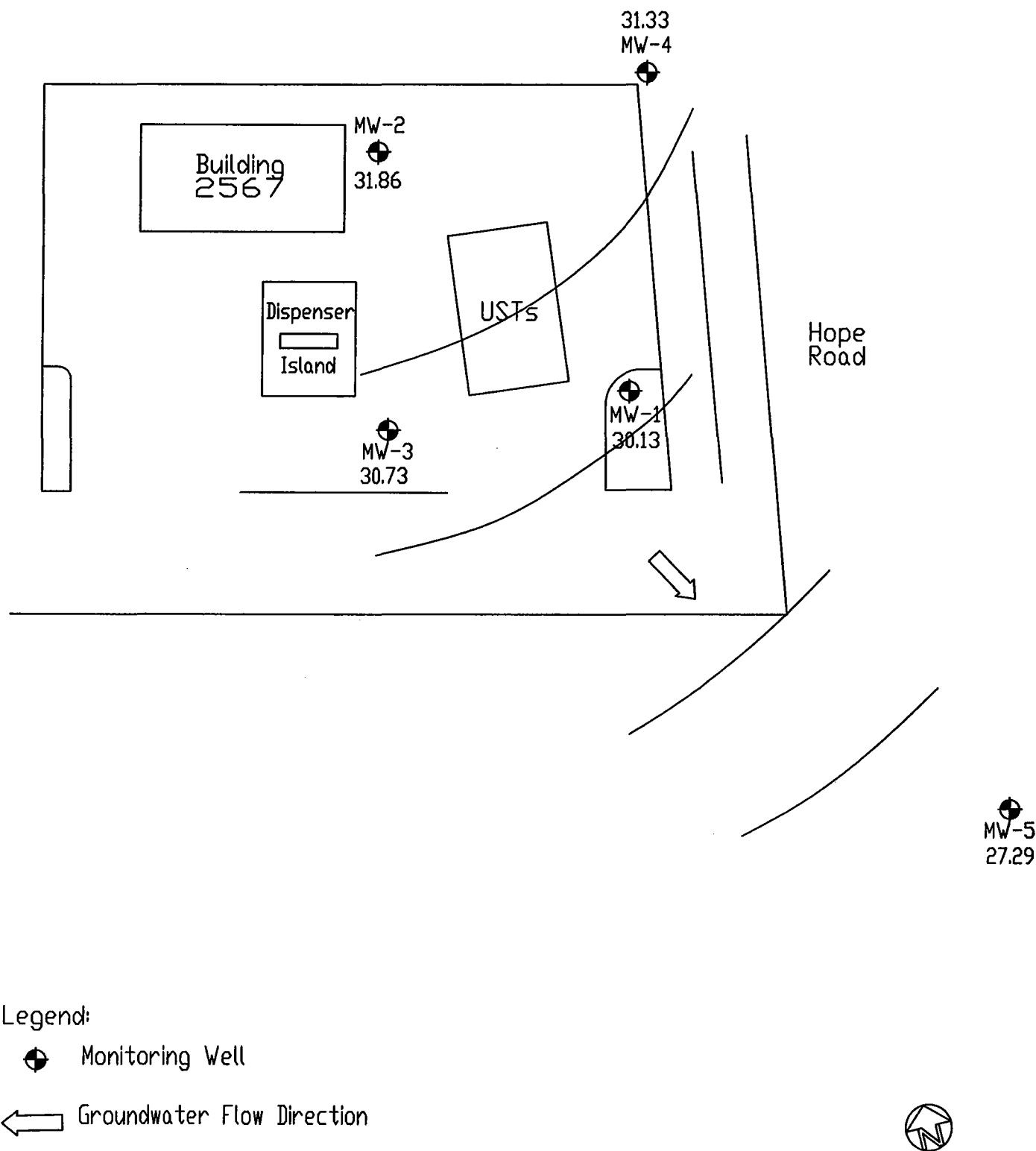


FIGURE 1 GROUNDWATER CONTOUR MAP (04/11/97)

Site Address:
U.S. Army Fort Monmouth, Charles Wood Area
Building 2567
Fort Monmouth, New Jersey

ent: U.S Army Fort Monmouth, NJ
Directorate of Public Works

ATC
Associates, Inc.
Three Terri Lane, Burlington, New Jersey 08016

ATC Project Number: 68.02711.0001

Scale: 1" = 40'

TABLE 1
GROUNDWATER ELEVATIONS
Fort Monmouth, Charles Wood Area
Site 2567

Well ID/ Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Groundwater Elevation (ft)
MW-1				
04/11/97	33.93	3.80	NA	30.13
01/07/97	33.93	3.75	NA	30.18
02/20/96	33.93	3.55	NA	30.38
11/21/95	33.93	3.60	NA	30.33
08/15/95	33.93	5.11	NA	28.82
05/25/95	33.93	4.36	NA	29.57
MW-2				
04/11/97	35.26	3.40	NA	31.86
01/07/97	35.26	3.30	NA	31.96
02/20/96	35.26	3.04	NA	32.22
11/21/95	35.26	3.00	NA	32.26
08/15/95	35.26	4.68	NA	30.58
05/25/95	35.26	4.03	NA	31.23
MW-3				
04/11/97	33.88	3.15	NA	30.73
01/07/97	33.88	3.15	NA	30.73
02/20/96	33.88	3.00	NA	30.88
11/21/95	33.88	3.00	NA	30.88
08/15/95	33.88	4.45	NA	29.43
05/25/95	33.88	3.69	NA	30.19
MW-4				
04/11/97	33.88	2.55	NA	31.33
01/07/97	33.88	2.15	NA	31.73
02/20/96	33.88	2.07	NA	31.81
11/21/95	33.88	2.22	NA	31.66
08/15/95	33.88	3.77	NA	30.11
05/25/95	33.88	3.08	NA	30.80
MW-5				
04/11/97	34.99	7.20	NA	27.79
01/07/97	34.99	7.30	NA	27.69
02/20/96	34.99	7.05	NA	27.94
11/21/95	34.99	6.30	NA	28.69
08/15/95	34.99	7.84	NA	27.15
05/25/95	34.99	7.59	NA	27.40

Notes:

NA - Not Applicable

TABLE 2
SAMPLING SUMMARY
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification	Laboratory Identification	Sample Date	Sample Time	Sample Matrix	Sample Analyses
Bldg. 2567 MW-1 2926925	95-24199	05/25/95	10:22	Groundwater	VO+15, Pb
Bldg. 2567 MW-2 2926926	95-24200	05/25/95	9:13	Groundwater	VO+15, Pb
Bldg. 2567 MW-3 2926947	95-24201	05/25/95	11:14	Groundwater	VO+15, Pb
Bldg. 2567 MW-4 2926948	95-24202	05/25/95	9:44	Groundwater	VO+15, Pb
Bldg. 2567 MW-5 2931783	95-24203	05/25/95	11:50	Groundwater	VO+15, Pb
Bldg. 2567 MW-1 2926925	95-36414	08/15/95	10:30	Groundwater	VO+15, Pb
Bldg. 2567 MW-2 2926926	95-36412	08/15/95	9:21	Groundwater	VO+15, Pb
Bldg. 2567 MW-3 2926947	95-36415	08/15/95	11:23	Groundwater	VO+15, Pb
Bldg. 2567 MW-4 2926946	95-36413	08/15/95	9:50	Groundwater	VO+15, Pb
Bldg. 2567 MW-5 2931788	95-36416	08/15/95	12:21	Groundwater	VO+15, Pb
Bldg. 2567 MW-1 2926925	95-54052	11/21/95	11:54	Groundwater	VO+15, Pb
Bldg. 2567 MW-2 2926926	95-54053	11/21/95	10:40	Groundwater	VO+15, Pb
Bldg. 2567 MW-3 2926947	95-54054	11/21/95	12:53	Groundwater	VO+15, Pb
Bldg. 2567 MW-4 2926948	95-54055	11/21/95	11:14	Groundwater	VO+15, Pb
Bldg. 2567 MW-5 2931783	95-54056	11/21/95	14:21	Groundwater	VO+15, Pb
2017.1 MW-1 2926925	96-8368	02/20/96	11:15	Groundwater	VO+15, Pb
2017.1 MW-2 2926926	96-8369	02/20/96	10:00	Groundwater	VO+15, Pb
2017.3 MW-3 2926947	96-8370	02/20/96	12:10	Groundwater	VO+15, Pb
2017.4 MW-4 2926948	96-8371	02/20/96	10:34	Groundwater	VO+15, Pb
2017.5 MW-5 2931783	96-8372	02/20/96	12:40	Groundwater	VO+15, Pb
Bldg. 2567 MW-1	2258.7	01/07/97	15:05	Groundwater	BTEX, PB
Bldg. 2567 MW-2	2258.5	01/07/97	11:45	Groundwater	BTEX, PB
Bldg. 2567 MW-3	2258.6	01/07/97	14:25	Groundwater	BTEX, PB
Bldg. 2567 MW-4	2258.3	01/07/97	10:30	Groundwater	BTEX, PB
Bldg. 2567 MW-5	2258.4	01/07/97	11:05	Groundwater	BTEX, PB
Bldg. 2567 MW-1	2446.06	04/11/97	14:20	Groundwater	VO+15, Pb
Bldg. 2567 MW-2	2442.05	04/11/97	12:00	Groundwater	VO+15, Pb
Bldg. 2567 MW-3	2442.07	04/11/97	14:45	Groundwater	VO+15, Pb
Bldg. 2567 MW-4	2442.03	04/11/97	10:30	Groundwater	VO+15, Pb
Bldg. 2567 MW-5	2442.04	04/11/97	11:00	Groundwater	VO+15, Pb

Notes:

NA - Not Available

VO+15 - Volatile organic compounds with a library search of fifteen tentatively identified compounds

Pb - Total lead

TABLE 3
GROUNDWATER ANALYTICAL RESULTS - 05/25/95
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification Lab Identification	MW-1 95-24199	MW-2 95-24200	MW-3 95-24201	MW-4 95-24202	MW-5 95-24203	NJDEP GWQS
Total Lead	<2.5	<2.5	2.7	<2.5	4.0	10

Detected Volatile Organic Compounds	MW-1 95-24199	MW-2 95-24200	MW-3 95-24201	MW-4 95-24202	MW-5 95-24203	NJDEP GWQS
Methylene Chloride	1.5B	.90B	21B	1.0B	1.2B	3
Benzene	ND	ND	94	ND	ND	1
Toluene	0.70	ND	3.8	ND	ND	1,000
Ethylbenzene	ND	1	6.3	ND	ND	700
Xylenes (total)	0.50	6.5	190	ND	ND	40
Methyl Tertiary Butyl Ether	110	3.1	400	ND	ND	70
Tertiary Butyl Alcohol	930	ND	ND	ND	ND	NA
Isopropylbenzene	ND	1.1	17	ND	ND	NA
n-Propylbenzene	ND	1.3	13	ND	ND	NA
1,3,5-Trimethylbenzene	ND	1.0	12	ND	ND	NA
1,2,4-Trimethylbenzene	ND	8.8	8.6	ND	ND	NA
Naphthalene	ND	11.0	9.4	ND	ND	NA
# of TICs	2	13	14	0	0	NA
TIC Concentration (total)	2	35	154	ND	ND	

Notes:

1. All results reported in micrograms per liter (µg/L).
 2. All results exceeding NJDEP GWQS are denoted in bold.
- NJDEP- New Jersey Department of Environmental Protection
GWQS- Groundwater Quality Standard
TIC- Tentatively identified compound
B- Compound detected in blank
ND- Not detected
NA- Not applicable

TABLE 4
GROUNDWATER ANALYTICAL RESULTS - 08/15/95
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification Lab Identification	MW-1 95-36414	MW-2 95-36412	MW-3 95-36415	MW-4 95-36413	MW-5 95-36416	NJDEP GWQS
Total Lead	3.3	5.6	<2.5	2.6	5.0	10

Detected Volatile Organic Compounds	MW-1 95-36414	MW-2 95-36412	MW-3 95-36415	MW-4 95-36413	MW-5 95-36416	NJDEP GWQS
Methylene Chloride	1.3B	1.3B	25B	1.3B	1.2B	3
Benzene	ND	ND	89	ND	ND	1
Toluene	0.7	ND	ND	ND	ND	1,000
Ethylbenzene	ND	0.6	8.4	ND	ND	700
Xylenes (total)	0.5	5.3	360	ND	ND	40
Methyl Tertiary Butyl Ether	29	2.5	670	ND	ND	70
Tertiary Butyl Alcohol	930	ND	ND	ND	ND	NA
Isopropylbenzene	ND	1.1	30	ND	ND	NA
n-Propylbenzene	ND	1.3	25	ND	ND	NA
1,3,5-Trimethylbenzene	ND	1.0	38	ND	ND	NA
1,2,4-Trimethylbenzene	ND	8.2	33	ND	ND	NA
Naphthalene	ND	11.0	21	ND	ND	NA
# of TICs	2	15	15	0	0	NA
TIC Concentration (total)	2	41	298	ND	ND	

Notes:

1. All results reported in micrograms per liter (µg/L).
 2. All results exceeding NJDEP GWQS are denoted in bold.
- NJDEP- New Jersey Department of Environmental Protection
GWQS- Groundwater Quality Standard
TIC- Tentatively identified compound
B- Compound detected in blank
ND- Not detected
NA- Not applicable

TABLE 5
GROUNDWATER ANALYTICAL RESULTS - 11/21/95
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification Lab Identification	MW-1 95-54052	MW-2 95-54053	MW-3 95-54054	MW-4 95-54055	MW-5 95-54056	NJDEP GWQS
Total Lead	<3.0	<3.0	<3.0	<3.0	<3.0	10

Detected Volatile Organic Compounds	MW-1 95-54052	MW-2 95-54053	MW-3 95-54054	MW-4 95-54055	MW-5 95-54056	NJDEP GWQS
Methylene Chloride	36B	.60B	18B	.60B	ND	3
Benzene	ND	ND	35	ND	ND	1
Toluene	ND	ND	ND	ND	ND	1,000
Ethylbenzene	ND	ND	ND	ND	ND	700
Xylenes (total)	ND	3.6	91	ND	ND	40
Methyl Tertiary Butyl Ether	80	1.6	360	ND	ND	70
Tertiary Butyl Alcohol	860	ND	46	ND	ND	NA
Isopropylbenzene	ND	1.0	14	ND	ND	NA
n-Propylbenzene	ND	1.1	ND	ND	ND	NA
1,3,5-Trimethylbenzene	ND	0.6	7.7	ND	ND	NA
1,2,4-Trimethylbenzene	ND	4.6	5.0	ND	ND	NA
Naphthalene	ND	7.3	6.6	ND	ND	NA
# of TICs	2	13	9	3	2	NA
TIC Concentration (total)	80	30	155	4	2	

Notes:

1. All results reported in micrograms per liter ($\mu\text{g/L}$).
 2. All results exceeding NJDEP GWQS are denoted in bold.
- NJDEP- New Jersey Department of Environmental Protection
GWQS- Groundwater Quality Standard
TIC- Tentatively identified compound
B- Compound detected in blank
ND- Not detected
NA- Not applicable

TABLE 6
GROUNDWATER ANALYTICAL RESULTS - 02/20/96
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification Lab Identification	MW-1 96-8368	MW-2 96-8369	MW-3 96-8370	MW-4 96-8371	MW-5 96-8372	NJDEP GWQS
Total Lead	4.0	<3.0	6.0	<3.0	<3.0	10

Detected Volatile Organic Compounds	MW-1 96-8368	MW-2 96-8369	MW-3 96-8370	MW-4 96-8371	MW-5 96-8372	NJDEP GWQS
Methylene Chloride	2.1B	2.0B	2.4B	1.2B	.80B	3
Benzene	ND	ND	40	ND	ND	1
Toluene	ND	ND	1.0	ND	ND	1,000
Ethylbenzene	ND	ND	4.5	ND	ND	700
Xylenes (total)	ND	4.2	70	ND	ND	40
Methyl Tertiary Butyl Ether	100	2.0	250	ND	ND	70
Tertiary Butyl Alcohol	780	ND	43	ND	ND	NA
Isopropylbenzene	ND	1.0	13	ND	ND	NA
n-Propylbenzene	ND	1.1	8.3	ND	ND	NA
1,3,5-Trimethylbenzene	ND	0.8	4.7	ND	ND	NA
1,2,4-Trimethylbenzene	ND	6.2	1.4	ND	ND	NA
Naphthalene	ND	7.2	5.4	ND	ND	NA
# of TICs	3	14	15	0	1	NA
TIC Concentration (total)	3	30	164	ND	1	

Notes:

1. All results reported in micrograms per liter (µg/L).
 2. All results exceeding NJDEP GWQS are denoted in bold.
- NJDEP- New Jersey Department of Environmental Protection
GWQS- Groundwater Quality Standard
TIC- Tentatively identified compound
B- Compound detected in blank
ND- Not detected
NA- Not applicable

TABLE 7
GROUNDWATER ANALYTICAL RESULTS - 01/07/97
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification Lab Identification	MW-1 2258.7	MW-2 2258.5	MW-3 2258.6	MW-4 2258.3	MW-5 2258.4	NJDEP GWQS
Total Lead	1.4	0.8	1.2	ND	ND	10

Detected Volatile Organic Compounds	MW-1 2258.7	MW-2 2258.5	MW-3 2258.6	MW-4 2258.3	MW-5 2258.4	NJDEP GWQS
Benzene	ND	ND	19.93	ND	ND	1
Toluene	ND	ND	0.91	ND	ND	1,000
Ethylbenzene	ND	ND	0.15	ND	ND	700
Xylenes (total)	ND	ND	28.49	ND	ND	40

Notes:

1. All results reported in micrograms per liter ($\mu\text{g/L}$).
 2. All results exceeding NJDEP GWQS are denoted in bold.
- NJDEP- New Jersey Department of Environmental Protection
GWQS- Groundwater Quality Standard
ND- Not detected

TABLE 8
GROUNDWATER ANALYTICAL RESULTS - 04/11/97
Fort Monmouth, Charles Wood Area
Site 2567

Sample Identification Lab Identification	MW-1 2446.06	MW-2 2446.05	MW-3 2446.07	MW-4 2446.03	MW-5 2446.04	NJDEP GWQS
Total Lead	4.0	<3.0	6.0	<3.0	<3.0	10

Detected Volatile Organic Compounds	MW-1 2446.06	MW-2 2446.05	MW-3 2446.07	MW-4 2446.03	MW-5 2446.04	NJDEP GWQS
None Detected	ND	ND	ND	ND	ND	NA

Notes:

1. All results reported in micrograms per liter ($\mu\text{g/L}$).
 2. All results exceeding NJDEP GWQS are denoted in bold.
- NJDEP- New Jersey Department of Environmental Protection
GWQS- Groundwater Quality Standard
ND- Not detected
NA- Not applicable

APPENDIX D

**Site Investigation Report – Main Post and Charles Wood Areas, Fort Monmouth,
New Jersey, Roy F. Weston, Inc., December 1995**

4.2 MAIN POST

Subsection 4.2 presents a description of each Main Post site, the sampling rationale, and the results of sampling activities. The sites and the sampling effort are summarized in Table 4.2-1. Additional historical information on each site may be obtained from the *Investigation of Suspected Waste Sites at Fort Monmouth, New Jersey*, 1993.

This subsection also summarizes the results of the sediment, surface-water, soil, and groundwater sampling program that was implemented to characterize site conditions on the Main Post, as identified in the WESTON report titled *Site Investigation, Chemical Data Acquisition Plan* (CDAP). A total of 4 sediment and 8 surface-water samples were taken on the Main Post. In addition, a total of 15 soil borings and 29 monitor wells were installed on Main Post sites. Soil and groundwater samples were collected from the borings and monitor wells and were analyzed for compounds determined to be characteristic of the wastes associated with each area, i.e., TCL and TAL analytes (Tables 3.6-1 and 3.8-1).

The field effort was conducted in accordance with the scope and procedures outlined in the CDAP. However, there were slight differences, which are summarized in Table 4.2-2. Appendix D presents the analytical results of the Main Post sampling activities. Detailed information regarding the specific sampling protocols for each site is provided in the subsections that follow. In addition to the results of groundwater and soil analyses, the lithologic descriptions and water-level information are used to provide a hydrogeologic interpretation of the site, where appropriate.

Figure 4.2-1 shows the location of the 13 Main Post sites discussed in this subsection.

4.2.1 Background Samples

The background sample locations were selected prior to the initiation of field activities in areas believed to be unaffected by base activities. These locations were as specified in the

Table 4.2-1

Site Investigation Summary — Main Post

Site Number	Site Type	Description	Potential Waste/Contaminants	Previous Sampling Activities*	Investigation Activities
M-2	Landfill	Operated 1964-1968. Currently used for leaf composting and to store wood chips. Debris protrudes from bank of Mill Creek. Was unfenced — covered with soil and gravel from Earle.	Domestic and industrial waste, oil in cans, filters, soot, and building rubble.	NJPDES sampling upstream (SW-1) and downstream (SW-2) on Mill Creek. Detected VOCs, metals, and inorganics.	Installed and sampled 3 monitor wells. Sampled surface water at the NJPDES locations (M2SW-1 and M2SW-2) and a new upstream surface-water location (SS-B1). Analyzed for TCL +30/TAL/CN. Tidal water-level monitoring.
M-3	Landfill	Operated 1959-1964. Was fenced; had skeet shooting range. Burned wood debris. Had tear gas training in tent. Currently grass-covered; no visible debris.	Domestic and industrial waste. Wood and coal ash from stoves, boiler.	NJPDES sampling locations SS-3, SS-4. Detected VOCs, metals, and inorganics.	Sampled surface water at the NJPDES locations (M10SW-1 and M6SW-1) and upstream surface-water sampling location (SS-B2). Used GPR and magnetics to define extent of landfill. Installed and sampled 3 monitor wells. Analyzed for TCL +30/TAL/CN.
M-4	Landfill	Operated 1956 only. Currently grass-covered; no visible debris.	Building rubble.	None.	Installed and sampled 3 monitor wells. Analyzed for TCL +30/TAL/CN.
M-5	Landfill	Operated 1952-1959. Currently grass-covered; no visible debris.	Domestic and industrial waste.	NJPDES sampling locations SS-5, SS-6. Detected VOCs, metals, and inorganics.	Installed and sampled 2 monitor wells. Analyzed for TCL +30/TAL/CN/sulfate.
M-6	Burning area	Located on Landfill M-3. Operated until 1970s. Burned general trash. Currently no visible contamination.	General trash.	None.	See M-3.
M-8	Landfill	Operated 1962-1981. Currently has leaf-composting operation. Was fenced and controlled during operation.	Domestic and industrial waste including pesticide/herbicide cans, batteries, asbestos, sludge from STP, and miscellaneous chemicals.	Four monitor wells, NJPDES sampling location SS-7.	Abandoned existing wells and piezometers; installed 4 new monitor wells. Analyzed for TCL +30/TAL/CN/NH ₄ /sulfate. Tidal water-level monitoring.
M-12	Landfill	Date of operation unknown. Located across Husky Brook from M-14.	Domestic and industrial waste, automobiles, oil, and building rubble.	NJPDES sampling locations SS-8, SS-9, and SS-10.	Used GPR and magnetics to locate landfill and define boundaries. Installed 3 monitor wells. Analyzed for TCL +30/TAL/CN. Tidal monitoring with M-14.
M-14	Landfill	Operated from 1965-1966. Has NJPDES permit.	Building rubble and dredgings from Husky Brook Lake.	NJPDES sampling upstream and downstream on Husky Brook Creek, SS-8, SS-9, and SS-10.	Used GPR and magnetics in western area. Installed and sampled 3 monitor wells for TCL +30/TAL/CN. Tidal monitoring with M-12. Sampled M14SW-8 and M14SW-9 surface-water locations.

WESTON

Table 4.2-1

**Site Investigation Summary — Main Post
(Continued)**

Site Number	Site Type	Description	Potential Waste/Contaminants	Previous Sampling Activities ^a	Investigation Activities
M-15	Water tank	Used for fire-fighting water. Built in 1940s. Paint chips on ground surrounding tank. Stressed vegetation around base of tank.	Lead.	None.	Collected 2 surface soil samples. Analyzed for TCL SVOCs, TAL, and pesticides.
M-16	Former Pesticide Storage Bldg. 498	Misidentified as Bldg. 167 in 1980 report. Building 498 used for pesticide control shop in the 1940s and 1950s: disposal to sink, which discharged to sanitary sewer. No apparent outside disposal.	Pesticides and herbicides.	None.	Collected 4 soil samples from 0 to 6 inches bgs. Installed soil boring and 1 monitor well. Analyzed for TCL +30. Analyzed for TAL in SB-01.
M-18	Former training area	Army Signal School. Diesel and gasoline generators.	Diesel and oil spilled on ground. PAHs, VOCs, TPHs, lead.	None.	Conducted geophysical surveys, completed 9 soil borings, sampled 6 to 12 inches or 12 to 18 inches, stained areas, and/or just above water table. Installed 2 monitor wells in soil borings. Sampled soil for VOCs and TPHs. In addition, sampled for SVOCs and TAL at SB-06 only. Sampled groundwater for TCL +30/TAL/TPHs.
AOC-3	Former sewage treatment plant	Operated 1941-1975. Sludge drying bed located on concrete base. Sludge transported to golf course and landfills. 1935 map shows pistol range on this location.	Heavy metals, cyanide, and pesticides.	Monitor wells installed west of site. Sludge sampled in 1981; no heavy metals detected.	Sampled outfall sediments and 2 soil borings in sludge bed area for TCL + 30/TAL/CN.
New Site, Not Noted in IA Report	Former treatment plant	Operated until 1941. Located approximately where Bldg. 250 is today. Labeled on 1935 map.	Heavy metals.	None.	Sampled outfall sediment for metals.
PCB Transformers	Buildings (see Table 4.2-22)	Several transformers in this area were tested for PCBs in 1990. Those with PCBs >500 ppm were removed or remediated.	PCBs	Transformers sampled — several > 500 ppm. See Table 4.2-22.	Sampled PCB transformer locations.

^aResults of previous investigation were presented on the report titled *Investigation of Suspected Waste Sites at Fort Monmouth, New Jersey* (1993).

^bTCL +30 = Target Compound List; includes volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs).

Table 4.2-2**Differences Between the Proposed and Actual Work at Main Post**

Site	Differences
M-15	Soil samples from SS-01 and SS-02 were collected and analyzed for TCL SVOCs; however, TCL SVOC analyses were not proposed in the CDAP.
M-16	Soil samples from SB-01 were collected and analyzed for TAL metals; however, TAL metals analyses were not proposed in the CDAP.
M-18	Installed 9 soil borings instead of 12, and 2 monitor wells instead of 3 because marshy conditions made some of the planned sampling locations inaccessible. Sampled one existing monitor well in addition to the 2 newly installed wells. In eight of nine soil borings, no soil staining was observed so no SVOC analysis was performed as per the CDAP.

Investigation of Suspected Waste Sites at Fort Monmouth, New Jersey, 1993, which was approved by NJDEP. Background characterization data were collected to evaluate soil, groundwater, surface water, and sediment in areas of the base considered to be representative of natural materials or upgradient conditions.

Sediment and surface-water samples were taken upgradient of the Main Post on Lafetra Creek and Mill Creek. Five background soil borings, which were converted into monitor wells, were installed and two discrete soil intervals were sampled from each boring. Two rounds of groundwater samples were collected from each location. Soil and groundwater samples were analyzed for the parameters listed in Section 3, Tables 3.6-1 and 3.8-1. Background monitor wells were labeled as "B" wells, i.e., MW-01B. Main Post background locations are shown in Figure 4.2-2 and labeled B-1, B-2, etc. Monitor well MW-01B was installed at background location B-1 and a similar practice was followed at the other background locations.

4.2.1.1 Hydrogeologic Interpretation

The five monitor wells installed at the Main Post were installed to depths ranging from 14 ft below ground surface (bgs) to 26 ft bgs. Total depths were determined during drilling and were based on the depth at which water was encountered. The lithology and depth to water varied between background locations, as presented on the lithologic logs in Appendix A. Monitor wells were screened across the water table.

4.2.1.2 Soil Sampling Results

As outlined in the CDAP, soil samples were collected from two discrete intervals: 0 to 2 ft bgs and between 2 and 10 ft bgs or to groundwater. Soil-boring depths varied among the background locations, depending on the depth to groundwater. The compounds detected in background soil samples at the specific sampling intervals, with the corresponding sample identifications, are presented in Appendix D. Table 4.1-6 summarizes the maximum concentrations detected in background soil at the Main Post and presents published maximum concentrations for Monmouth County.

VOCs

VOCs were analyzed for but were not detected in Main Post background soil samples.

SVOCs

A total of 19 SVOCs were detected in Main Post background soil samples (Table 4.1-6).

Pesticides/PCBs

Three pesticides (4,4'-DDE, 4,4-DDD, and 4,4'-DDT) were detected above the laboratory quantitation limit in Main Post background soils.

Metals

A total of 19 metals were detected above laboratory quantitation limits in Main Post background soils.

Cyanide

Cyanide was not detected in any of the Main Post background soil samples.

4.2.1.3 Groundwater Sampling Results

Two rounds of groundwater samples were collected at the Main Post. The compounds detected in groundwater samples from the individual sampling rounds, with the corresponding sample identifications, are listed in Appendix D. Table 4.1-6 summarizes the maximum background concentrations detected in groundwater at the Main Post.

VOCs

VOCs were not detected in any of the background samples from the Main Post.

SVOCs

Two SVOCs [bis(2-ethylhexyl) phthalate and chrysene] were detected in concentrations above or below the laboratory quantitation limits. However, bis(2-ethylhexyl) phthalate is a common laboratory contaminant.

Pesticides/PCBs

One pesticide (heptachlor epoxide) was detected in the background groundwater samples in a concentration below the laboratory quantitation limit. PCBs were not detected at the background locations.

Metals

As indicated in Table 4.1-6, 22 metals (total) were detected in concentrations above laboratory quantitation limits in background groundwater at the Main Post.

Cyanide

Cyanide was not detected in the background groundwater at the Main Post.

4.2.1.4 Surface-Water Sampling Results

Two surface-water samples collected at locations upgradient from on-site drainage (SS-B1 and SS-B2) were selected as background samples (Figure 4.2-2). The analytes detected in background surface water and corresponding sample identifications are presented in Appendix D.

Table 4.1-8 summarizes the maximum detected concentrations in total and soluble background surface water at the Main Post.

VOCs

VOCs were analyzed for but not detected in background surface water (total) at the Main Post. VOC analysis was not performed for the soluble background surface-water samples.

SVOCs

SVOCs were analyzed for but not detected in background surface water (total) at the Main Post. SVOC analysis was not performed for the soluble background surface-water samples.

Metals

A total of 13 metals were detected above laboratory quantitation limits at the Main Post. Similarly, 11 metals were detected above laboratory quantitation limits in the filtered (soluble) background surface-water samples (Table 4.1-8).

4.2.1.5 Sediment Sampling Results

Two sediment sampling locations at the Main Post, SS-B1 and SS-B2, were selected as background because they are located upgradient of on-site drainage (Figure 4.2-2). Analytes detected in background sediment and corresponding sample identifications are presented in Appendix D. Table 4.1-8 summarizes the maximum detected concentrations in background sediment at the Main Post.

VOCs

Four VOCs (acetone, 2-butanone, 1,2-dichloroethene, and vinyl chloride) were detected above the laboratory quantitation limits in Main Post background sediments. However, acetone and 2-butanone are common laboratory contaminants.

SVOCs

One SVOC, di-n-butyl phthalate, was detected in concentrations above the laboratory quantitation limits in Main Post background sediment. Benzo(a)pyrene was the only polyaromatic hydrocarbon (PAH) compound detected in concentrations above the laboratory quantitation limits in Main Post background sediment.

Pesticides

Pesticides were analyzed for but not detected in background sediments at the Main Post.

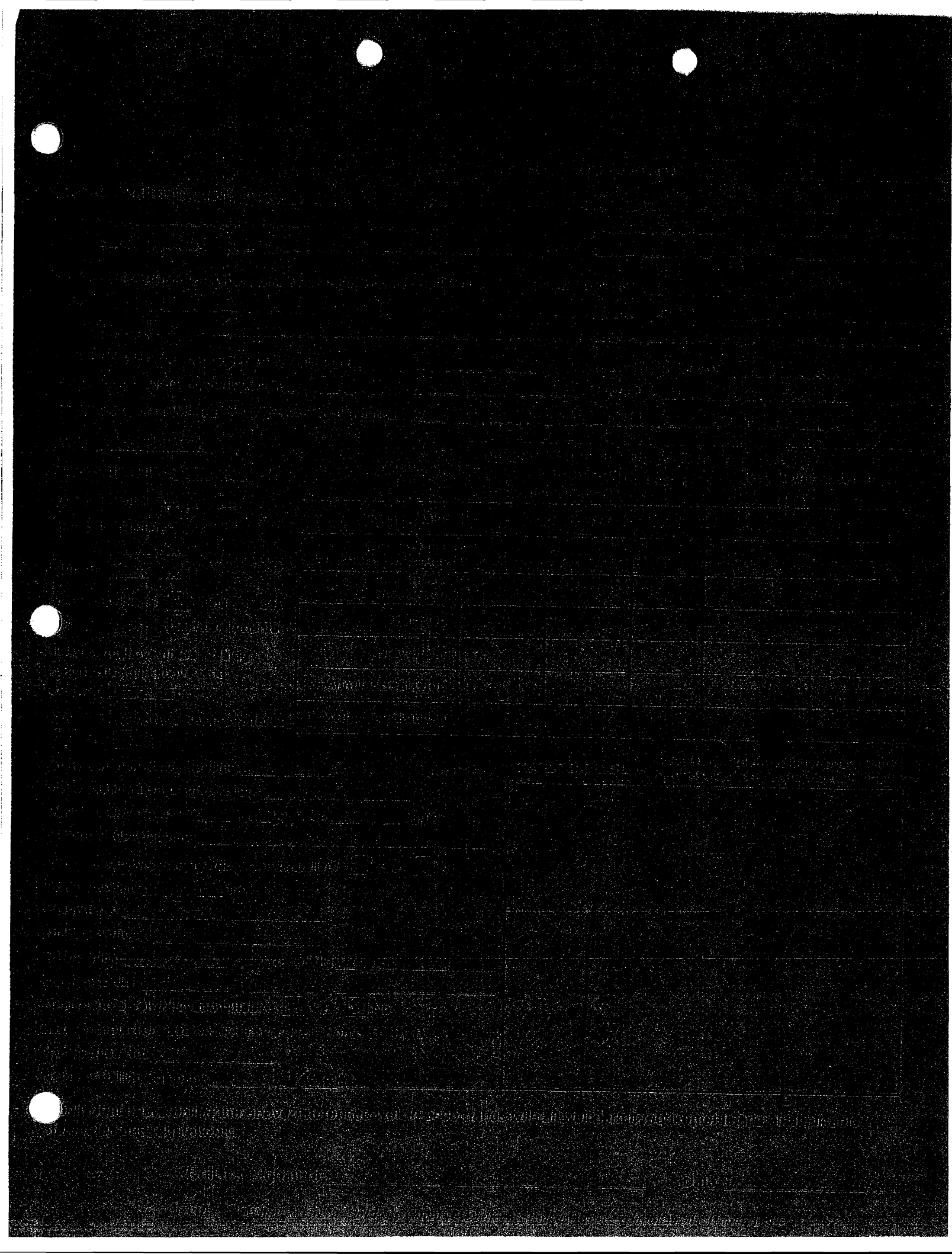
Metals

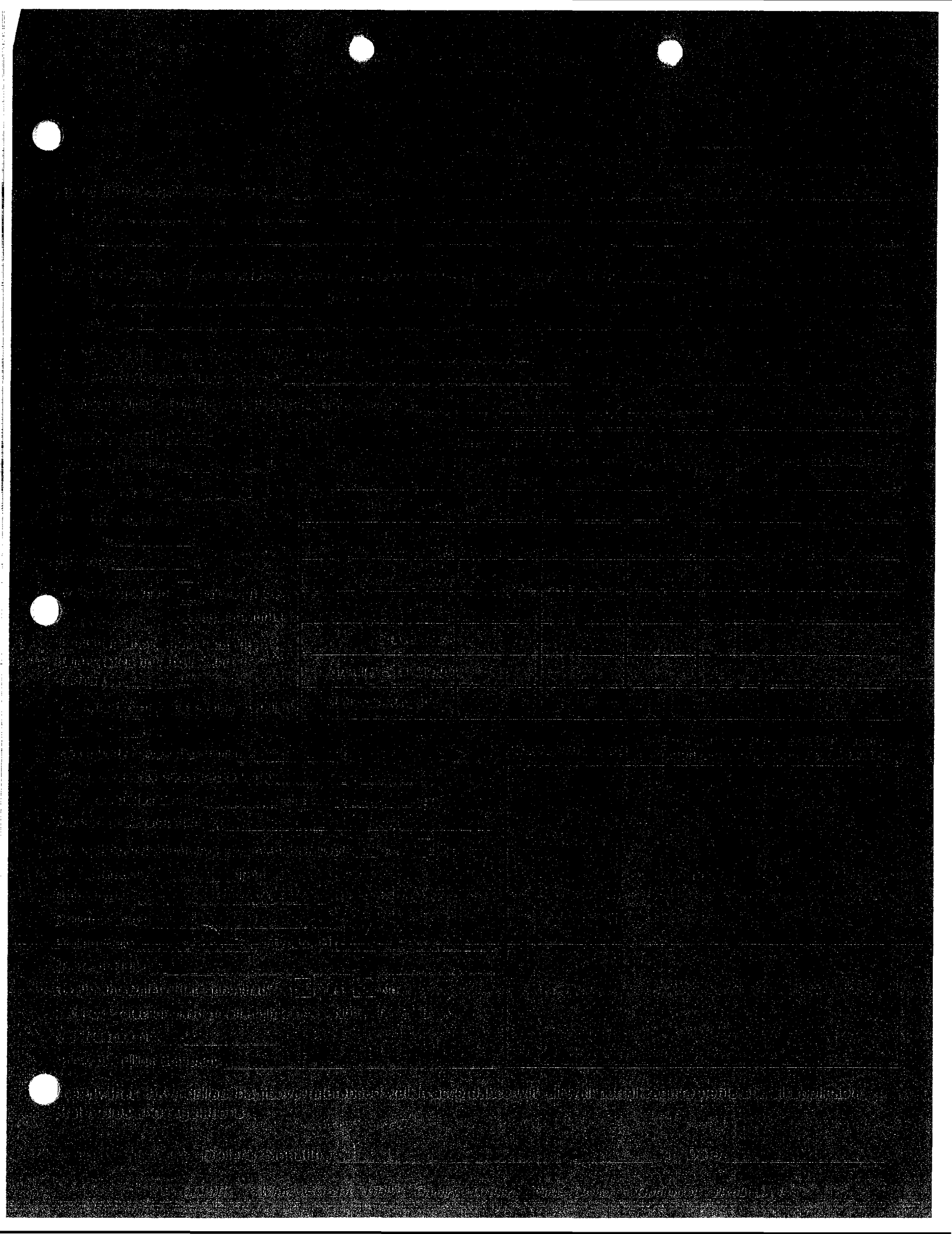
A total of 19 metals in background sediment at the Main Post were detected above laboratory quantitation limits (see Table 4.1-8).



APPENDIX E

Boring Logs and Monitoring Well Construction Records





10-10-68

Dear Mr. [Name],
I have your letter of 10-10-68 regarding the [Topic].
I am sorry that I cannot give you a more definitive answer at this time.
The [Topic] is still under review and I will be sure to contact you again as soon as a final decision has been reached.
Thank you for your patience and understanding.
Sincerely,
[Signature]

Very truly yours,

[Name]

[Title]

I am sorry that I cannot give you a more definitive answer at this time.
The [Topic] is still under review and I will be sure to contact you again as soon as a final decision has been reached.
Thank you for your patience and understanding.
Sincerely,
[Signature]

I am sorry that I cannot give you a more definitive answer at this time.
The [Topic] is still under review and I will be sure to contact you again as soon as a final decision has been reached.
Thank you for your patience and understanding.
Sincerely,
[Signature]

Very truly yours,

[Name]

[Signature]

In the second part, the document outlines the specific procedures for recording transactions. It details the steps involved in the accounting cycle, from identifying the transaction to posting it to the appropriate ledger account.

The third part of the document addresses the issue of internal controls. It explains how a well-designed system of internal controls can help to ensure the accuracy and reliability of financial information by minimizing the risk of errors and fraud.

In the fourth part, the document discusses the role of the auditor. It describes the various types of audits and the responsibilities of the auditor in providing an independent opinion on the financial statements.

The fifth part of the document covers the topic of financial reporting. It explains the requirements for preparing financial statements in accordance with generally accepted accounting principles (GAAP) and the importance of providing clear and concise information to investors and other stakeholders.

In the sixth part, the document discusses the impact of accounting on business decision-making. It explains how financial information can be used to analyze the performance of the business and to make informed decisions about future operations.

The seventh part of the document addresses the issue of ethics in accounting. It discusses the importance of adhering to a code of ethics and the potential consequences of unethical behavior in the accounting profession.

In the eighth part, the document discusses the role of accounting in the global economy. It explains how accounting standards and practices vary across different countries and the importance of international harmonization.

The ninth part of the document covers the topic of accounting information systems. It discusses the use of technology in accounting and the importance of ensuring the security and integrity of financial data.

In the tenth part, the document discusses the future of accounting. It explores emerging trends and technologies that are likely to shape the accounting profession in the years ahead.

The final part of the document provides a summary of the key points discussed throughout the document. It emphasizes the importance of accounting as a fundamental part of business and the need for continuous learning and adaptation in this dynamic field.



10/11/1964

10/11/1964

CONFIDENTIAL - SECURITY INFORMATION - NO FORN DISSEM

Produced for Charles Appleby

Project Name : BLDG. 2567
NJDEP Case # : 91-8-27-1414
Logged By : TYREE INC.
Start Date : 9/23/94

Completion Date : 9/23/94
 Northing : N 533126.613
 Easting : E 2163949.888
 Driller : M. Beck

Depth in Feet	29-31783 ELEV: 34.99	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	Well Construction Information
0		Topsoil, vegetation					Well Construction Date Completed : 9/23/94 Hole Diameter : 8 in Drill Method : HSA Company Rep : M. Beck Well Casing Material : PVC Diameter : 4 in Joints : Threaded
1		Brown fine sand		SW			Well Screen Material : PVC Diameter : 4 in Joints : Threaded Opening : 20 Slot
2		Black soft clay		CL			Sand Pack : # 2 Morie Sand
2.5		Brown fine sands and silts		SM			Annulus Seal : Bentonite/Portland Tremmie
4		Gray medium sand with well rounded gravel					Well Screen Material : PVC Diameter : 4 in
6							NOTES Well #1 is 2567 MW5
8							
10							
12							
12.5							

1. The proposed project is located in an area zoned for residential use. The project is a residential development. ☒ Yes ☐ No
 2. The proposed project is located in an area zoned for commercial use. The project is a commercial development. ☐ Yes ☒ No
 3. The proposed project is located in an area zoned for industrial use. The project is an industrial development. ☐ Yes ☒ No
 4. The proposed project is located in an area zoned for agricultural use. The project is an agricultural development. ☐ Yes ☒ No
 5. The proposed project is located in an area zoned for public use. The project is a public development. ☐ Yes ☒ No
 6. The proposed project is located in an area zoned for institutional use. The project is an institutional development. ☐ Yes ☒ No
 7. The proposed project is located in an area zoned for community use. The project is a community development. ☐ Yes ☒ No
 8. The proposed project is located in an area zoned for office use. The project is an office development. ☐ Yes ☒ No
 9. The proposed project is located in an area zoned for retail use. The project is a retail development. ☐ Yes ☒ No
 10. The proposed project is located in an area zoned for entertainment use. The project is an entertainment development. ☐ Yes ☒ No

Account Name	Account Number	Account Type	Account Balance	Account Status
John Doe	123456789	Checking	\$1,234.56	Active
Jane Smith	987654321	Savings	\$5,678.90	Active
Bob Johnson	555555555	Checking	\$2,345.67	Active
Alice Brown	111111111	Savings	\$3,456.78	Active
Charlie Davis	222222222	Checking	\$4,567.89	Active
Eve Wilson	333333333	Savings	\$6,789.01	Active
Frank Miller	444444444	Checking	\$7,890.12	Active
Grace Lee	666666666	Savings	\$8,901.23	Active
Henry King	777777777	Checking	\$9,012.34	Active
Ivy White	888888888	Savings	\$10,123.45	Active
Jack Black	999999999	Checking	\$11,234.56	Active
Karen Green	000000000	Savings	\$12,345.67	Active
Leo Brown	101010101	Checking	\$13,456.78	Active
Mia White	202020202	Savings	\$14,567.89	Active
Noah Black	303030303	Checking	\$15,678.90	Active
Olivia Green	404040404	Savings	\$16,789.01	Active
Peter Brown	505050505	Checking	\$17,890.12	Active
Quinn White	606060606	Savings	\$18,901.23	Active
Rachel Black	707070707	Checking	\$19,012.34	Active
Samuel Green	808080808	Savings	\$20,123.45	Active
Tina Brown	909090909	Checking	\$21,234.56	Active
Uma White	010101010	Savings	\$22,345.67	Active
Victor Black	121212121	Checking	\$23,456.78	Active
Wendy Green	232323232	Savings	\$24,567.89	Active
Xavier Brown	343434343	Checking	\$25,678.90	Active
Yara White	454545454	Savings	\$26,789.01	Active
Zoe Black	565656565	Checking	\$27,890.12	Active
Adam Green	676767676	Savings	\$28,901.23	Active
Ella Brown	787878787	Checking	\$29,012.34	Active
Felix White	898989898	Savings	\$30,123.45	Active
Gina Black	909090909	Checking	\$31,234.56	Active
Harry Green	010101010	Savings	\$32,345.67	Active
Iris Brown	121212121	Checking	\$33,456.78	Active
Jack White	232323232	Savings	\$34,567.89	Active
Karen Black	343434343	Checking	\$35,678.90	Active
Leo Green	454545454	Savings	\$36,789.01	Active
Mia Brown	565656565	Checking	\$37,890.12	Active
Noah White	676767676	Savings	\$38,901.23	Active
Olivia Black	787878787	Checking	\$39,012.34	Active
Peter Green	898989898	Savings	\$40,123.45	Active
Quinn Brown	909090909	Checking	\$41,234.56	Active
Rachel White	010101010	Savings	\$42,345.67	Active
Samuel Black	121212121	Checking	\$43,456.78	Active
Tina Green	232323232	Savings	\$44,567.89	Active
Uma Brown	343434343	Checking	\$45,678.90	Active
Victor White	454545454	Savings	\$46,789.01	Active
Wendy Black	565656565	Checking	\$47,890.12	Active
Xavier Green	676767676	Savings	\$48,901.23	Active
Yara Brown	787878787	Checking	\$49,012.34	Active
Zoe White	898989898	Savings	\$50,123.45	Active
Adam Black	909090909	Checking	\$51,234.56	Active
Ella Green	010101010	Savings	\$52,345.67	Active
Felix Brown	121212121	Checking	\$53,456.78	Active
Gina White	232323232	Savings	\$54,567.89	Active
Harry Black	343434343	Checking	\$55,678.90	Active
Iris Green	454545454	Savings	\$56,789.01	Active
Jack Brown	565656565	Checking	\$57,890.12	Active
Karen White	676767676	Savings	\$58,901.23	Active
Leo Black	787878787	Checking	\$59,012.34	Active
Mia Green	898989898	Savings	\$60,123.45	Active
Noah Brown	909090909	Checking	\$61,234.56	Active
Olivia White	010101010	Savings	\$62,345.67	Active
Peter Black	121212121	Checking	\$63,456.78	Active
Quinn Green	232323232	Savings	\$64,567.89	Active
Rachel Brown	343434343	Checking	\$65,678.90	Active
Samuel White	454545454	Savings	\$66,789.01	Active
Tina Black	565656565	Checking	\$67,890.12	Active
Uma Green	676767676	Savings	\$68,901.23	Active
Victor Brown				

RECEIVED
JUN 21 1966
U.S. AIR FORCE

It is important to note that the above refers only to the use of the well permit requirements and applicable state rules and regulations.

Collaboration in the Classroom

WILLIAMS & SON

ENTREPRENEUR

Registration No.	Registration Date
------------------	-------------------

The image shows a dark, heavily textured surface, likely the cover or endpaper of an old book. The texture is grainy and uneven, with many small, light-colored specks and fibers visible against the dark background. A vertical strip of lighter, possibly gold-leafed or lighter-colored material, runs along the left edge, suggesting a hinge or a decorative border. The overall appearance is aged and worn.

1000

Water Alkalinity

000000

REF ID: A6672

RENOUVEAU LIBRE

CLIP ONTO INTERSECTION OF THE RAY

CONFIDENTIAL

[illegible]

LOCATION OF WELLS

Draw sketch of well(s) nearest maps buildings, etc. will
 include distance from 1. Each well must be labeled with
 a name and/or number on the sketch.

© 2001 by John Wiley & Sons, Inc.

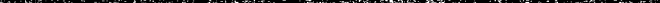


Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher than the number of incorrect responses for all groups. The number of correct responses was significantly higher than the number of incorrect responses for all groups. The number of correct responses was significantly higher than the number of incorrect responses for all groups.

Figure 1. The effect of the number of trials on the mean number of correct responses for the 100 trials condition. The number of correct responses was significantly higher than the number of incorrect responses for the 100 trials condition.

100

100

This Space for Approval Stamp

UNITED STATES DEPARTMENT OF AGRICULTURE

STEFAN WILSON

FEB 24 1991

[illegible]

a permit to drill a well as described above.

Date: _____ Signature of Driver: _____ License #: _____

1. The first step in the process is to identify the problem. This involves gathering information about the situation and understanding the needs of the stakeholders involved.

COPIES

Water Allocation — White and Pink

Health Dept. - Yellow

OWNER — BAC

Duller — White

SERIAL 41176

WAB 10/10/94

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TRENTON, NJ

Mailin

MONITORING WELL PERMIT

Permit No. 293108
38
07.136.51

Primary Water Allocation

SHOWN ONLY AFTER APPROVAL BY THE DEPE

Is this for law enforcement?

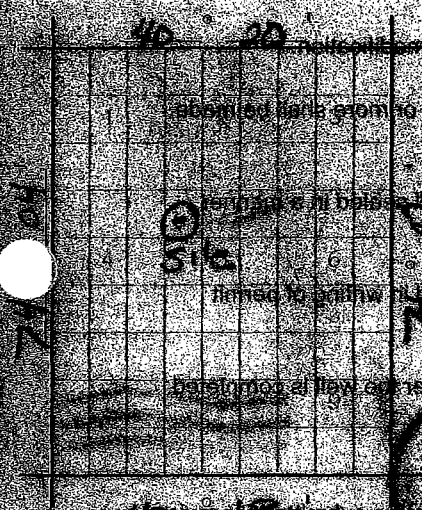
Owner: US Army - Fort Monmouth
Address: SELF-MAN-EV
Fort Monmouth New Jersey 07023
Name of Facility: Bldg 2567
Address: Charles Wood
Fort Monmouth New Jersey

Driller: Tyreco Organization, Ltd
Address: 1350 PS Hwy 130
Burlington, NJ 08016

Diameter of Well(s)	4	Proposed Depth of Well(s)	15
Is this well to be used for pumping equipment?	YES	Is pumping equipment installed?	YES
Applied for (max 10)	1 (one)	If yes, one pump only?	YES
Type of Well	Monitoring	If yes, one pump only?	YES

Lot #	Block #	Municipality	County
		Fort Monmouth	Atlantic

State Atlas Map No. 29



Draw sketch of well(s) nearest roads, buildings, etc. with name and/or number on the sketch.

1. This permit conveys no right, either expressed or implied, to divert water from any source for any purpose.

2. Well permits, submitted in accordance with this permit, shall be valid for a period of one year from the date of approval.

3. If the permit is applied for and approved, the permittee shall be responsible for paying the fee for the permit.

4. Once the well is abandoned, the permittee shall be responsible for paying the fee for the permit.

5. This permit shall be valid for (1) year from the date of approval. Department must be notified in writing of permit cancellation.

6. A well record must be filed with the Bureau of Water Allocation within sixty (60) days after the well is completed.

7. This permit is NONTRANSFERABLE.

8. If the use of the well is to be changed, a well permit for the proposed use of the well must be submitted for approval.

9. The existing well permit number must be referenced on the application form.

FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED.

- ☐ Precip. Site
- ☐ LULU Site
- ☐ CERCLA (Superfund) Site
- ☐ Other Site
- ☒ Air Ground Storage Tank Site
- ☐ Ground Water Permit Site
- ☐ Air and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain)

CASE I.D. Number

91-8-27-1414
(Site Bldg. 2567)

This Space for Approval Stamp

WELL PERMIT APPROVED
N.J.D.E.P.

AUG 3 1994

BUREAU OF WATER ALLOCATION

FOR DEPE USE: Issuance of this permit is subject to the conditions attached. (see next page)

FOR DEPE USE: The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

IN COMPLIANCE WITH N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date: 7-23-94
Signature of Driller: [Signature]
Signature of Owner: [Signature]
License #: 1421
Owner: SELF-MAN-EV

SERIAL - 016751

DWR-133M (10/95)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
TRENTON, NJ

36

294251
294258

NUDEP

MONITORING WELL PERMIT

Permit No.

For Water Allocation

37.0

NOT TO BE COMPLETED UNTIL AFTER APPROVAL BY THE D.E.P.

DATE OF WELL
APPROVAL
M. B. 8/1/00

Owner: U.S. Army
Address: 173 Riverside Ave
Fort Monmouth, NJ
Name of Facility: Wing 2567
Address: 2567 Laboratory Rd
Fort Monmouth, NJ

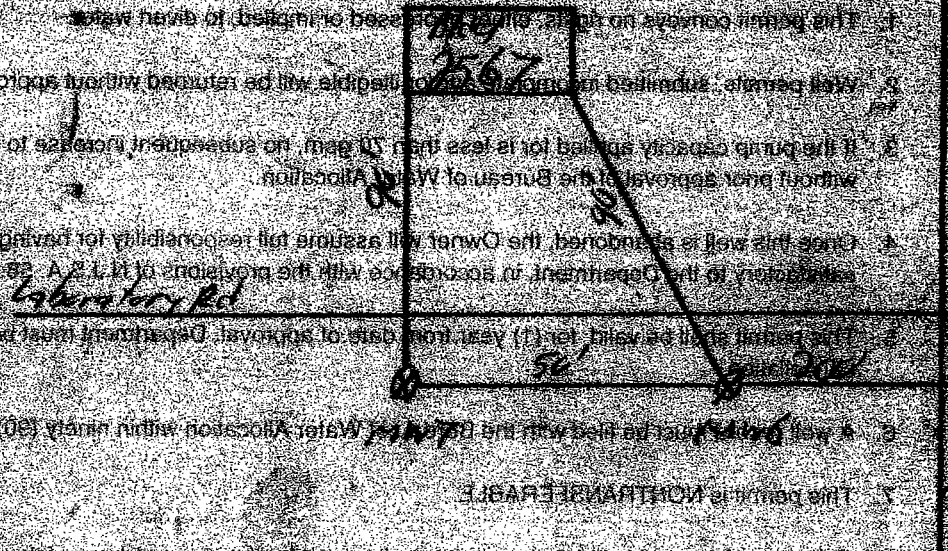
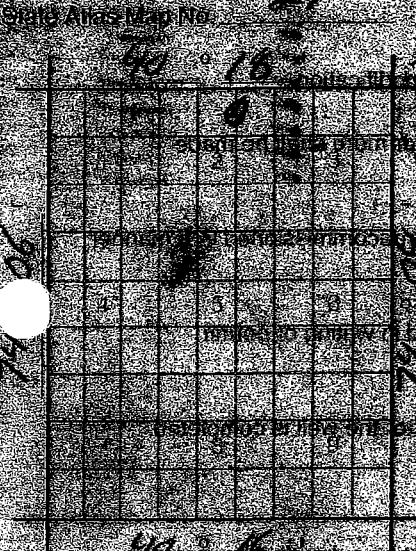
Driller: INLAND DETECTION SERVICES, INC.
Address: 935-888-7400
1400 MOUNT AVE
BRIDGEVIEW, NJ 07001

Diameter of Well(s)	<u>4</u>	Depth of Well(s)	<u>15</u>
Use of Well(s)	<u>Monitoring</u>	Well pumping equipment	<u>None</u>
Applied for (max. 10)	<u>2</u>	Wellhead (FEET) (10' to 15' to 20')	<u>15</u>
Type of Well (see reverse)	<u>Monitoring</u>	If yes, give pump capacity	<u>None</u>

LOCATION OF MONITORING WELL

Lot: 101 Block: 1A Municipality: Fort Monmouth County: Monmouth

Draw sketch of well(s) nearest roads, buildings, etc. with

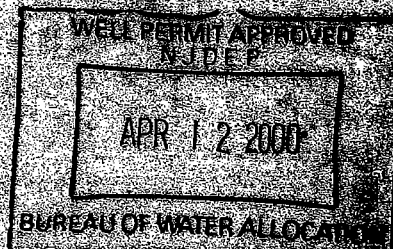


FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Soil Site
- ☐ EPCRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain):

CASE ID Number

This Space for Approval Stamp



FOR USE: ☒ Issuance of this permit is subject to the conditions attached (see next page).
☒ For monitoring purposes only

The well(s) may not be completed with more than 25' total total screen or uncased borehole.

PLEASE SEE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date: 4-10-00 Signature of Driller: [Signature] Registration No. 02420

Signature of Owner: [Signature]

COPIES:

Water Allocation - White

Health Dept - Yellow

Owner - Blue

REC'D APR 14 2000

SERIAL 016751

DWR-133M (10/96)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
TRENTON, NJ

Mail to

NJDEP
Bureau Water Allocation
426
Trenton, NJ 08625-0426

MONITORING WELL PERMIT

Permit No.

VALID ONLY AFTER APPROVAL BY THE D.E.P.

Owner U.S. Army
Address 173 Riverside Av
Ft Monmouth NJ
Name of Facility Bldg 2567
Address 2567 Laboratory Rd
Ft. Monmouth NJ

Driller INLAND POLLUTION SERVICES, INC.
Address 935-939 FAIRMOUNT AVENUE
ELIZABETH, NJ 07201

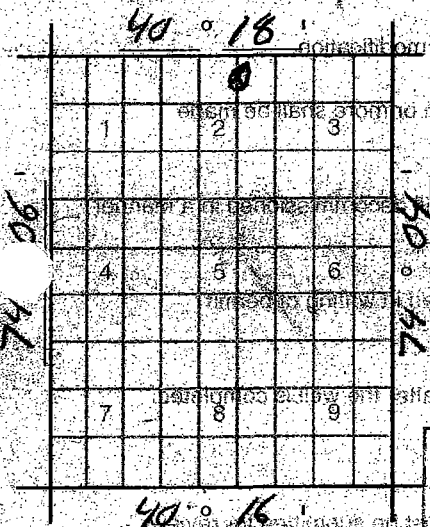
Diameter of Well(s) <u>4</u>	Proposed Depth of Well(s) <u>15</u>
Will pumping equipment be installed? YES ☐ NO ☒	
Type of Well (see reverse) <u>Monitoring</u>	If Yes, give pump capacity <u>NA</u> cumulative GPM

LOCATION OF WELL(S)

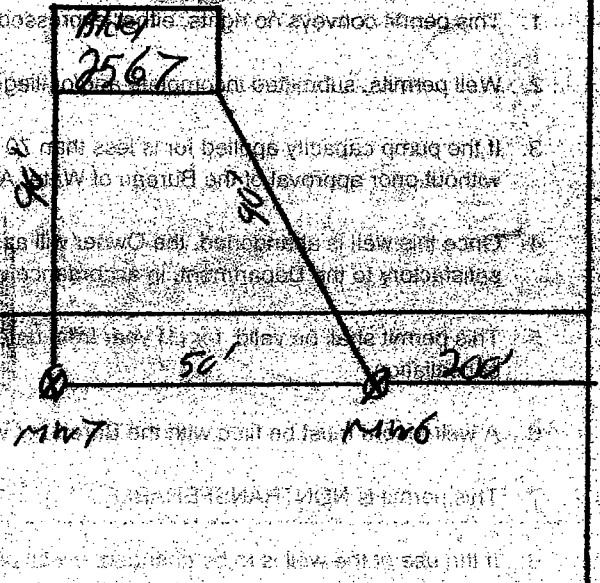
Lot #	Block #	Municipality	County
<u>NA</u>	<u>NA</u>	<u>Monmouth</u>	<u>Monmouth</u>

Draw sketch of well(s) nearest roads, buildings, etc. with marked distances. Each well MUST be labeled with a name and/or number on the sketch.

State Atlas Map No. 29



Laboratory Rd



RECEIVED
APR 26 2000
MONMOUTH COUNTY
REGIONAL HEALTH COMMISSION #1

FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Spill Site
- ☐ ISRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain)

CASE I.D. Number

This Space for Approval Stamp

WELL PERMIT APPROVED
NJDEP
APR 12 2000
BUREAU OF WATER ALLOCATION

FOR D.E.P. USE

- ☒ Issuance of this permit is subject to the conditions attached. (see next page)
- ☒ For monitoring purposes only

The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

VERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date

4-10-00

Signature of Driller

Registration No. 07420

Signature of Owner

Joe Fallon agent M&E

COPIES:

Water Allocation — White

Health Dept. — Yellow

Owner — Blue

Driller — White

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26925

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water
Allocation Section (609-984-6831):

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):	West	<u>29-26925</u> <u>74° 04' 46.1"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 44.6"</u>
Elevation of Top of Casing (cap off)		<u>33.93</u>
Distance from Top of Casing (cap off) to ground		<u>0.21</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-1</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

William E. Telling
Professional Land Surveyor's Signature

William E. Telling, P.L.S.
Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211
Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

INDEPENDENT WELL OWNER

Address:

Owner: (If owner is not the same as well owner, address of owner is required)

County:

City:

NAME OF WELL (as on Well Label) Category:

Regulation: (If not a regulated well)

CONSTRUCTION PERMIT INFORMATION (If not a regulated well)

DATE OF PERMIT:

Permit number:

Well located to:

to:

Section:

County:

State:

Well depth (vertical distance):

Well depth (horizontal distance):

Was there a previous well at this location?

Yes ☐ No ☐

Was there a well at this location?

Yes ☐ No ☐

Was there a well at this location?

Yes ☐ No ☐

Was there a well at this location?

Yes ☐ No ☐

Was there a well at this location?

Yes ☐ No ☐

Was there a well at this location?

Yes ☐ No ☐

Has a Safety Plan been submitted? ☐ Yes ☒ No

Revised information on site (if not, enter B, C, D, A)

Not a regulated company

TARRANT UTILITIES CORP

I have drilled the above referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Owner's Signature

Date

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26925

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water
Allocation Section (609-984-6831):

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):	West	<u>29-26925</u> <u>74° 04' 46.1"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 44.6"</u>
Elevation of Top of Casing (cap off)		<u>33.93</u>
Distance from Top of Casing (cap off) to ground		<u>0.21</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-1</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and
am familiar with the information submitted in this document and all
attachments and that, based on my inquiry of those individuals
immediately responsible for obtaining the information, I believe
the submitted information is true, accurate and complete. I am
aware that there are significant penalties for submitting false
information including the possibility of fine and imprisonment.

William E. Telling
Professional Land Surveyor's Signature

William E. Telling, P.L.S.
Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211
Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

DIRECTORATE OF PUBLIC WORKS
ENVIRONMENTAL OFFICE

3/22/1983

All input values are NAD 27, geographic coordinates.
All output values are NAD 27, state plane zone 2900 (FEET).

STATION	INPUT (transformed to)	OUTPUT
2567mw1	40 17 44.60000 N	533207.582 N
	074 04 46.10000 W	2163799.020 E
Convergence		0 22 47.16
Scale Factor		1.00000570

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26926

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water
Allocation Section (609-984-6831):

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):	West	<u>29-26926</u> <u>74° 04' 47.0"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 45.2"</u>
Elevation of Top of Casing (cap off)		<u>35.26</u>
Distance from Top of Casing (cap off) to ground		<u>0.02</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-2</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

William E. Telling
Professional Land Surveyor's Signature

William E. Telling, P.L.S.
Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211
Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

1000

100

[illegible]

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NAME OF WELL (owner, well name and category): _____ Date: _____

2014-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046

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九、中国书画函授大学肇庆分校

1974-75 (1975-76)

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

Wolfgang Iser, *Die Akt des Lesens* (1976)

105-10634-6

WILSON & JONES

RECEIVED BY THE DIRECTOR

1. *Staphylococcus aureus* (Gram positive)

1175-1176

Water, Hydration

1. 2000-2001 2002-2003 2004-2005 2006-2007 2008-2009 2010-2011 2012-2013 2014-2015 2016-2017 2018-2019 2020-2021 2022-2023 2024-2025 2026-2027 2028-2029 2030-2031 2032-2033 2034-2035 2036-2037 2038-2039 2040-2041 2042-2043 2044-2045 2046-2047 2048-2049 2050-2051 2052-2053 2054-2055 2056-2057 2058-2059 2060-2061 2062-2063 2064-2065 2066-2067 2068-2069 2070-2071 2072-2073 2074-2075 2076-2077 2078-2079 2080-2081 2082-2083 2084-2085 2086-2087 2088-2089 2090-2091 2092-2093 2094-2095 2096-2097 2098-2099 2100-2101 2102-2103 2104-2105 2106-2107 2108-2109 2110-2111 2112-2113 2114-2115 2116-2117 2118-2119 2120-2121 2122-2123 2124-2125 2126-2127 2128-2129 2130-2131 2132-2133 2134-2135 2136-2137 2138-2139 2140-2141 2142-2143 2144-2145 2146-2147 2148-2149 2150-2151 2152-2153 2154-2155 2156-2157 2158-2159 2160-2161 2162-2163 2164-2165 2166-2167 2168-2169 2170-2171 2172-2173 2174-2175 2176-2177 2178-2179 2180-2181 2182-2183 2184-2185 2186-2187 2188-2189 2190-2191 2192-2193 2194-2195 2196-2197 2198-2199 2200-2201 2202-2203 2204-2205 2206-2207 2208-2209 2210-2211 2212-2213 2214-2215 2216-2217 2218-2219 2220-2221 2222-2223 2224-2225 2226-2227 2228-2229 2230-2231 2232-2233 2234-2235 2236-2237 2238-2239 2240-2241 2242-2243 2244-2245 2246-2247 2248-2249 2250-2251 2252-2253 2254-2255 2256-2257 2258-2259 2260-2261 2262-2263 2264-2265 2266-2267 2268-2269 2270-2271 2272-2273 2274-2275 2276-2277 2278-2279 2280-2281 2282-2283 2284-2285 2286-2287 2288-2289 2290-2291 2292-2293 2294-2295 2296-2297 2298-2299 2300-2301 2302-2303 2304-2305 2306-2307 2308-2309 2310-2311 2312-2313 2314-2315 2316-2317 2318-2319 2320-2321 2322-2323 2324-2325 2326-2327 2328-2329 2330-2331 2332-2333 2334-2335 2336-2337 2338-2339 2340-2341 2342-2343 2344-2345 2346-2347 2348-2349 2350-2351 2352-2353 2354-2355 2356-2357 2358-2359 2360-2361 2362-2363 2364-2365 2366-2367 2368-2369 2370-2371 2372-2373 2374-2375 2376-2377 2378-2379 2380-2381 2382-2383 2384-2385 2386-2387 2388-2389 2390-2391 2392-2393 2394-2395 2396-2397 2398-2399 2400-2401 2402-2403 2404-2405 2406-2407 2408-2409 2410-2411 2412-2413 2414-2415 2416-2417 2418-2419 2420-2421 2422-2423 2424-2425 2426-2427 2428-2429 2430-2431 2432-2433 2434-2435 2436-2437 2438-2439 2440-2441 2442-2443 2444-2445 2446-2447 2448-2449 2450-2451 2452-2453 2454-2455 2456-2457 2458-2459 2460-2461 2462-2463 2464-2465 2466-2467 2468-2469 2470-2471 2472-2473 2474-2475 2476-2477 2478-2479 2480-2481 2482-2483 2484-2485 2486-2487 2488-2489 2490-2491 2492-2493 2494-2495 2496-2497 2498-2499 2500-2501 2502-2503 2504-2505 2506-2507 2508-2509 2510-2511 2512-2513 2514-2515 2516-2517 2518-2519 2520-2521 2522-2523 2524-2525 2526-2527 2528-2529 2530-2531 2532-2533 2534-2535 2536-2537 2538-2539 2540-2541 2542-2543 2544-2545 2546-2547 2548-2549 2550-2551 2552-2553 2554-2555 2556-2557 2558-2559 2560-2561 2562-2563 2564-2565 2566-2567 2568-2569 2570-2571 2572-2573 2574-2575 2576-2577 2578-2579 2580-2581 2582-2583 2584-2585 2586-2587 2588-2589 2590-2591 2592-2593 2594-2595 2596-2597 2598-2599 2600-2601 2602-2603 2604-2605 2606-2607 2608-2609 2610-2611 2612-2613 2614-2615 2616-2617 2618-2619 2620-2621 2622-2623 2624-2625 2626-2627 2628-2629 2630-2631 2632-2633 2634-2635 2636-2637 2638-2639 2640-2641 2642-2643 2644-2645 2646-2647 2648-2649 2650-2651 2652-2653 2654-2655 2656-2657 2658-2659 2660-2661 2662-2663 2664-2665 2666-2667 2668-2669 2670-2671 2672-2673 2674-2675 2676-2677 2678-2679 2680-2681 2682-2683 2684-2685 2686-2687 2688-2689 2690-2691 2692-2693 2694-2695 2696-2697 2698-2699 2700-2701 2702-2703 2704-2705 2706-2707 2708-2709 2710-2711 2712-2713 2714-2715 2716-2717 2718-2719 2720-2721 2722-2723 2724-2725 2726-2727 2728-2729 2730-2731 2732-2733 2734-2735 2736-2737 2738-2739 2740-2741 2742-2743 2744-2745 2746-2747 2748-2749 2750-2751 2752-2753 2754-2755 2756-2757 2758-2759 2760-2761 2762-2763 2764-2765 2766-2767 2768-2769 2770-2771 2772-2773 2774-2775 2776-2777 2778-2779 2780-2781 2782-2783 2784-2785 2786-2787 2788-2789 2790-2791 2792-2793 2794-2795 2796-2797 2798-2799 2800-2801 2802-2803 2804-2805 2806-2807 2808-2809 2810-2811 2812-2813 2814-2815 2816-2817 2

Figure 1. Effect of the initial concentration of the monomer on the polymerization of α -methylstyrene initiated by BuLi in THF at -78°C for 10 min. $[\text{BuLi}] = 0.001 \text{ M}$, $[\text{THF}] = 0.1 \text{ M}$, $[\text{M}] = 0.001 \text{ M}$.

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ANALYTICAL LABORATORY, U.S. DEPARTMENT OF AGRICULTURE

REFERENCES AND NOTES

100
200
300
400

2.1.2. Data Method

Engine Fluid

James O. Dill

Health and Safety Plans submitted? ☐ Yes ☒ No[illegible]

Id-License No. _____

NAME OF THE COMPANY

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

GEOLOGIC LOG

Copyright © 1999 by John Wiley & Sons, Inc.

A dark, textured background, possibly a book cover or endpaper, featuring a faint, stylized outline of a ladder or staircase on the left side. The texture is grainy and mottled, with varying shades of gray and black. The ladder-like structure is composed of several horizontal and vertical lines, suggesting a set of steps or a framework. The overall appearance is aged and somewhat abstract.

City of Miami have drilled the above referenced well in accordance with all well permit requirements and all applicable state rules and regulations.

Diller & Scudamore

Date _____

COMES - White & Green - DEP - Canary - Driller - Pink - Owner - Goldenrod - Health Dept

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26926

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water
Allocation Section (609-984-6831):

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):	West	<u>29-26926</u> <u>74° 04' 47.0"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 45.2"</u>
Elevation of Top of Casing (cap off)		<u>35.26</u>
Distance from Top of Casing (cap off) to ground		<u>0.02</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-2</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and
am familiar with the information submitted in this document and all
attachments and that, based on my inquiry of those individuals
immediately responsible for obtaining the information, I believe
the submitted information is true, accurate and complete. I am
aware that there are significant penalties for submitting false
information including the possibility of fine and imprisonment.

William E. Telling
Professional Land Surveyor's Signature

William E. Telling, P.L.S.
Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211
Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

DIRECTORATE OF PUBLIC WORKS
ENVIRONMENTAL OFFICE

3/22/1983

All input values are NAD 27, geographic coordinates.
All output values are NAD 27, state plane zone 2900 (FEET).

STATION	INPUT (transformed to)	OUTPUT
2567mw2	40 17 45.20000 N	533267.836 N
	074 04 47.00000 W	2163728.879 E
Convergence		0 22 46.58
Scale Factor		1.00000567

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26947

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water
Allocation Section (609-984-6831):

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):	West	<u>29-26947</u> <u>74° 04' 46.9"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 44.5"</u>
Elevation of Top of Casing (cap off)		<u>33.88</u>
Distance from Top of Casing (cap off) to ground		<u>0.06</u>
Owner's Well Number (As shown in the application		<u>MW-3</u>
or Plans):		
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

William E. Telling

Professional Land Surveyor's Signature

William E. Telling, P.L.S.

Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211

Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

OWNERS IDENTIFICATION

Address

City/State/Zip

Type of well (borehole, cased, etc.) and category (shallow, deep, etc.) as well as depth of well (feet) and diameter (inches).

Owner's name (individual or company)

Phone number

Well location

Well depth

Well diameter

Well type

Well category

Well depth

Well diameter

Well type

Well category

Well depth

Well diameter

Well type

Well category

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Well category

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Well diameter

Well type

Well category

Well depth

Well diameter

Well type

Well category

I hereby certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable state rules and regulations.

Driller's Signature

Date

COPIES: White & Green DEP, Canary Driller, Pink Owner, Goldenrod Health Dept.

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26947

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water Allocation Section (609-984-6831):

This number must be permanently affixed to the well casing.

Longitude (one tenth of a second):	West	<u>29-26947</u> <u>74° 04' 46.9"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 44.5"</u>
Elevation of Top of Casing (cap off)		<u>33.88</u>
Distance from Top of Casing (cap off) to ground		<u>0.06</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-3</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

William E. Telling

Professional Land Surveyor's Signature

William E. Telling, P.L.S.

Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211

Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

DIRECTORATE OF PUBLIC WORKS
ENVIRONMENTAL OFFICE

3/22/1983

All input values are NAD 27, geographic coordinates.
All output values are NAD 27, state plane zone 2900 (FEET).

STATION	INPUT (transformed to)	OUTPUT
2567mw3	40 17 44.50000 N	533197.052 N
	074 04 46.90000 W	2163737.097 E
Convergence		0 22 46.64
Scale Factor		1.00000568

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJDES Permit No: NJ 29-26948

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water
Allocation Section (609-984-6831):

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):	West	<u>29-26948</u> <u>74° 04' 46.0"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 45.5"</u>
Elevation of Top of Casing (cap off)		<u>33.51</u>
Distance from Top of Casing (cap off) to ground		<u>0.13</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-4</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

William E. Telling
Professional Land Surveyor's Signature

William E. Telling, P.L.S.
Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211
Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

WATER WELL DRILLING REPORT

Well No. 20 Date 10/1/78
 Address 1000 Main St. N. W.

Owner JOHN J. FLETCHER JR. City ALBUQUERQUE State N.M.

Well Location (If applicable, please include address) 1000 Main St. N. W.
 City ALBUQUERQUE State N.M.

Is this well a new well? Yes If so, please indicate the depth of the well 100 feet.
 Is this well a replacement well? No

Is this well a replacement well? No

Is this well a replacement well? No

Is this well a replacement well? No

Is this well a replacement well? No

Is this well a replacement well? No

Is this well a replacement well? No

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Is this well a replacement well? No

Is this well a replacement well? No

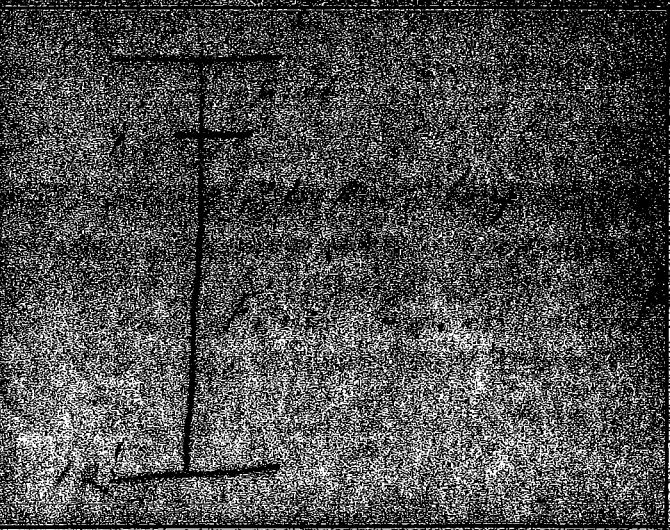
Is this well a replacement well? No

Is this well a replacement well? No

Is this well a replacement well? No

Depth (feet)	Soil Type	Water Level (feet)	Remarks
0 - 10	Topsoil		
10 - 20	Clay		
20 - 30	Clay		
30 - 40	Clay		
40 - 50	Clay		
50 - 60	Clay		
60 - 70	Clay		
70 - 80	Clay		
80 - 90	Clay		
90 - 100	Clay		

Geologic Log (Please refer to the Geologic Log section of the report)



I hereby certify that I have drilled the above referenced well in accordance with all well permit requirements and all applicable state rules and regulations.

Driller's Signature [Signature] Date 10/1/78

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION

Name of Permittee: United States Army
Name of Facility: Fort Monmouth - Building No. 2567
Location: Fort Monmouth
New Jersey
NJPDES Permit No: NJ 29-26948

LAND SURVEYOR'S CERTIFICATION

Well Permit Number; As assigned by NJDEPE's Water Allocation Section (609-984-6831):

This number must be permanently affixed to the well casing.

Longitude (one tenth of a second):	West	<u>29-26948</u> <u>74° 04' 46.0"</u>
Latitude (one tenth of a second):	North	<u>40° 17' 45.5"</u>
Elevation of Top of Casing (cap off)		<u>33.51</u>
Distance from Top of Casing (cap off) to ground		<u>0.13</u>
Owner's Well Number (As shown in the application or Plans):		<u>MW-4</u>
Benchmark:		

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

William E. Telling
Professional Land Surveyor's Signature

William E. Telling, P.L.S.
Professional Land Surveyor's Name

SEAL

N.J.P.L.S. License No. 37211
Professional Land Surveyor's License #

(lak41\wp51\ftmonfmb.wet)

DIRECTORATE OF PUBLIC WORKS
ENVIRONMENTAL OFFICE

3/22/1983

All input values are NAD 27, geographic coordinates.
All output values are NAD 27, state plane zone 2900 (FEET).

STATION	INPUT (transformed to)	OUTPUT
2567mw4	40 17 45.50000 N	533298.707 N
	074 04 46.00000 W	2163806.165 E
Convergence		0 22 47.23
Scale Factor		1.00000570

- MONITORING - LL CERTIFICATION-FORM B-LOC ION CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
WIPDES Number: 91-8-27-1414

Discharge

LAND SURVEYOR'S CERTIFICATION

Well Permit Number:

This number must be permanently affixed to the well casing.

29-31783-

Longitude (to nearest second):

West 74°04'44.16"

Latitude (to nearest second):

North 40°17'43.79"

Elevation of Top of Inner Casing (cap off)
(one-hundredth of a foot):

34.99

Elevation of ground level (1/100th ft.)

31.83

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.)

Source: FM-12

☒ 1927 ☐ 1983

Elev.:

Owners Well Number (As shown on application or plans):

BLDG. 2567 MW-5

Elevations are to be determined by double run, three wire leveling methods using balanced sights, commencing from a well marked and described point. This beginning point shall either be derived from Federal or State benchmarks if not more than 1000 feet from the site or from an alternate datum approved by the Department. Tolerances should meet third order standards, which are 0.05 ft x (mile)^{1/2}. For sections less than 0.1 mile, 1st miles = 0.1.

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Wayne W. BURGESS
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

WAYNE W. BURGESS
PROFESSIONAL LAND SURVEYOR'S NAME
(Please print or type)

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE

[illegible][illegible]

any that have filed the above referenced with an orange will fail to permit requirements and all applicable state and federal regulations.

Date & Signature M. M. M. M. Date 10-10-99

COMETS: White & Green, BEPE, Canary, Ember, Pink, Owner, Goldenrod, Health Dept.

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:

Bldg.
2567

Hope Drive

MW-5

PROJECT: US Army
Ft. Monmouth

BORING NO: MW-5

TOTAL DEPTH: 12 1/2

JOB NO:

LOGGED BY: E. Pyle

PROJ. MGR.: Capritti

EDITED BY:

DRILLING CONTRACTOR: Tyree

DRILL RIG TYPE: B 80

DRILLERS NAME: M. Beck

SAMPLING METHODS: SS

HAMMER WT.: 120 lbs.

DROP:

STARTED, TIME: 11:15 AM

DATE:

COMPLETED, TIME: 12:15 PM

DATE:

BORING DEPTH (ft): 12 1/2

CASING DEPTH (ft): 2 1/2

WATER DEPTH (ft): 7 1/2

TIME:

DATE:

9/30/94

BACKFILLED, TIME: 12:20 PM DATE: 9/23/94 BY: Tyree

SURFACE ELEV:

DATUM:

CONDITIONS:

Topsoil, vegetation
Brown, fine sand
Black, soft clayBrown, fine sands and silts;
wet at approx. 3'.
Gray, medium sand with well
rounded gravel.

SW

10

SERIAL # 41176

/R-133M (10/93)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TRENTON, NJ

Mail to

JDEPE
Bureau Water Allocation
426
Trenton, NJ 08625

MONITORING WELL PERMIT

Permit No. 293108

VALID ONLY AFTER APPROVAL BY THE D.E.P.E.

COORD #: 29.13.651

Owner US Army - Fort Monmouth
Address Fort Monmouth New Jersey 07033
Name of Facility EW 367
Address Fort Monmouth New Jersey

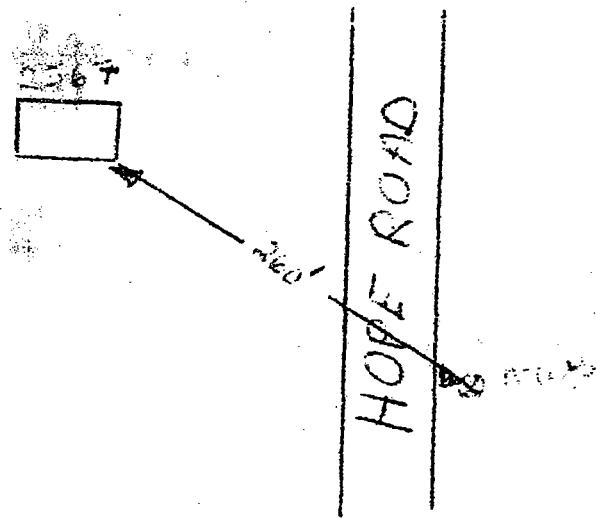
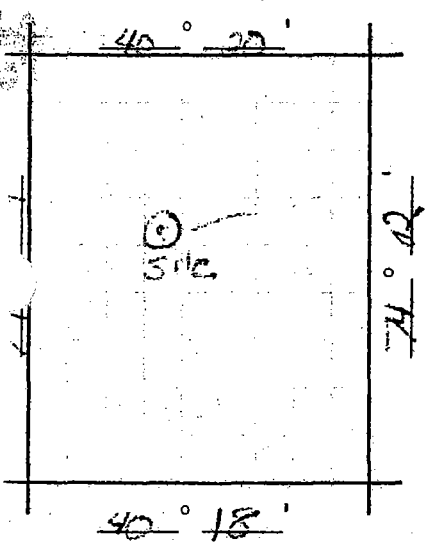
Driller Types Organization Ltd
Address 100 US Hwy 100
Livingston NJ 07036
Diameter of Well(s) 4 Inches
Proposed Depth of Well(s) 15 Feet
of Wells Applied for (max. 10) 1 (One)
Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) Monitoring
If Yes, give pump capacity 1 1/4 GPM

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		Fort Monmouth	New Jersey

Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.

State Atlas Map No. 29



N ↑

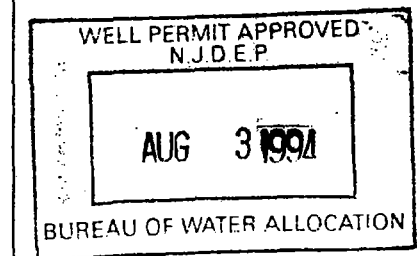
FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Spill Site
- ☐ ISRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain) _____

CASE I.D. Number

91-8-77-1414
(Site 367, 3567)

This Space for Approval Stamp



FOR D.E.P.E. USE

- ☒ Issuance of this permit is subject to the conditions attached. (see next page)
- ☒ For monitoring purposes only

- ☐ The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

Compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date 7-25-94

Signature of Driller

License # 1421

Signature of Owner

SELF-MAN-EV

COPIES:

Water Allocation — White and Pink

Health Dept. — Yellow

Owner — Blue

Driller — White

SERIAL 00076

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TELEPHONE

NJDEP
Bureau Water Allocation
IN NJ 08625

MONITORING WELL PERMIT

Permit No. 393108
2567 MW 5
B6-51

Owner: D.S. Blythe, Fort Monmouth
Address: 515 M-100-EP
Fort Monmouth, New Jersey 07033
Name of Facility: Bldg. 2567
Address: Charles Wood
Fort Monmouth, New Jersey

Driller: Tyler O. Conner, Ltd.
Address: 1350 W. 11th Ave.
Burlington, NJ 08016

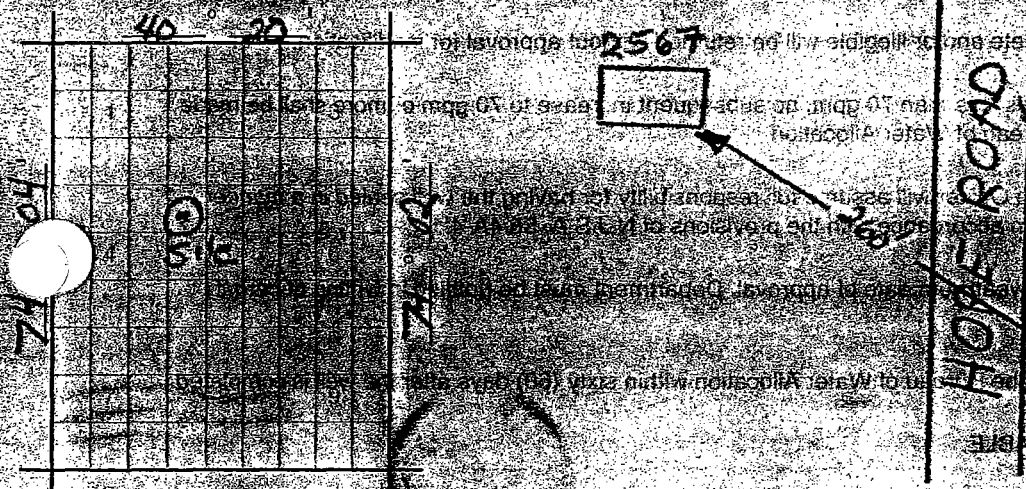
Diameter of Well(s)	4	Proposed Depth of Well(s)	15
Will Well be used for (check one)	None	Will pumping equipment be installed?	YES
Type of Well (see reverse)	Monitoring	If Yes, give pump capacity	1 1/4 GPM

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		Fort Monmouth	Monmouth

Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.

State Atlas Map No. 29



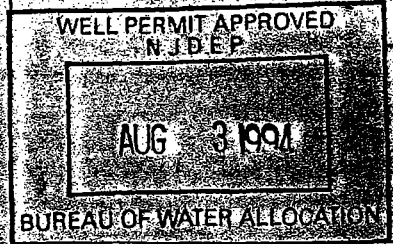
FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED.

- ☐ Spill Site
- ☐ ISRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain)

CASE I.D. Number

91-8-27-1414
(Site Bldg. 2567)

This Space for Approval Stamp



FOR D.E.P.E. For monitoring purposes only. The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

SEE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date: 7-25-94
Signature of Driller: [Signature]
Signature of Owner: [Signature]
License #: 1421

COPIES: Water Allocation — White and Pink Health Dept. — Yellow Owner — Blue Driller — White

MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
NIPDES Number: 91-8-27-1414
Discharge

LAND SURVEYOR'S CERTIFICATION

Well Permit Number:
This number must be permanently affixed to the well casing.

29-31783-

Longitude (to nearest second):

West 74°04'44.16"

Latitude (to nearest second):

North 40°17'43.79"

Elevation of Top of Inner Casing (cap off)
(one-hundredth of a foot):

34.99

Elevation of ground level (1/100th ft.)

31.83

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.)

Source: FM-12

I 1927 II 1983

Elev.:

Owners Well Number (As shown on application or plans):

BLDG. 2567 MW-5

Elevations are to be determined by double run, three wire leveling methods using balanced sights, commencing from a well marked and described point. This beginning point shall either be derived from Federal or State benchmarks if not more than 1000 feet from the site or from an alternate datum approved by the Department. Tolerances should meet third order standards, which are 0.05 ft x (mile)^{1/2}. For sections less than 0.1 mile, 1st miles = 0.1.

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Wayne W. Boret
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

WAYNE W. BORETT
PROFESSIONAL LAND SURVEYOR'S NAME
(Please print or type)

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION
CERTIFICATION

Name of Permittee: UNITED STATES ARMY
Name of Facility: CAMP CHARLES WOOD
Location: TINTON FALLS BOROUGH, NEW JERSEY
NJPDDES Permit No: NJ

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEPE's Water
Allocation Section, 609-292-2957):

29-42585

This number must be permanently affixed to the
well casing.

Longitude (one tenth of a second):

West

74° 04' 46.0"

Latitude (one tenth of a second):

North

40° 17' 43.7"

Elevation of Top of Casing (cap off)

35.10

Distance from Top of Casing (cap off) to ground

2.24

Owner's Well Number (As shown in the application
or Plans):

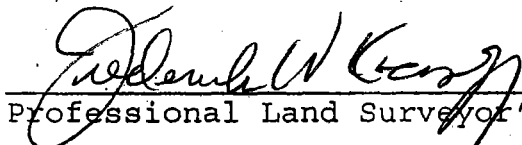
2567-MW-6

Benchmark: NJGCS Monument No. 9235

Elevation = 56.69

AUTHENTICATION:

I declare under penalty of law that I have personally examined and
am familiar with the information submitted in this document and all
attachments and that, based on my inquiry of those individuals
immediately responsible for obtaining the information, I believe
the submitted information is true, accurate and complete. I am
aware that there are significant penalties for submitting false
information including the possibility of fine and imprisonment.


Professional Land Surveyor's Signature

Frederick W. Kocen Jr.
Professional Land Surveyor's Name

SEAL

N.J. Lic. # 34008
Professional Land Surveyor's License #

The Department reserves the right in cases of violation of permit
specified ground water limits or Ground Water Quality Standards
(NJAC 7:9-6.1 et seq.) to require that wells be resurveyed to an
accuracy of one-hundredth of a second latitude and longitude. This
shall not be considered to require a major modification of the
NJPDDES permit.



U.S. ARMY
FORT MONMOUTH
SELF-M-PW-EV

LOG OF BORING 2567 MW6

(Page 1 of 1)

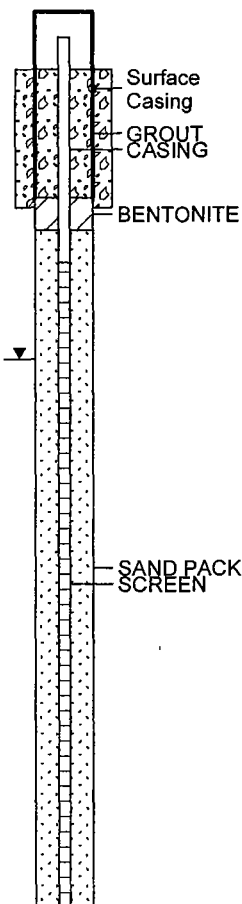
U.S. ARMY
SELF-M-PW-EV
JOSEPH FALLON
BLDG. 2567
GROUNDWATER INVESTIGATION

DRILLING COMPANY : IPSI
DRILLER : MIKE
DRILLING METHOD : HOLLOW STEM AUGER
HOLE DIAMETER : 11 INCH
SAMPLING METHOD : 2 IN. SPLIT SPOON

GEOLOGIST : FRANK ACCORSI
DATE COMPLETED : 05/12/00
NJDEP PERMIT NO. :
NJDEP COORD. :

Depth in FEET	Samples	Blow Count	DESCRIPTION	USCS	OVA (PPM)	Well Construction Information
0	1		Brown-yellow brown coarse-med-fine SAND, and coarse-med-fine Gravel	GM	0	WELL CASING MATERIAL : PVC DIAMETER : 4 inch JOINTS : threaded LENGTH : 3 feet WELL SCREEN MATERIAL : PVC DIAMETER : 4 inch JOINTS : threaded OPENING : 0.010 inch LENGTH : 10 feet SAND PACK : Morie #1 ANNULUS SEAL : bentonite STICK UP MATERIAL : steel DIAMETER : 6 inch NOTES Development of the monitoring well was performed using a submersible pump until ground water was visibly free of sediments (approximately one-half hour).
1	2				0.3	
	3				0.5	
2	4				0.6	
	5				0.4	
3	6				0.2	
	7				0	
4	8		Wet at 4.5 ft.		0	
	9				0	
5	10				0	
	11		Green black Clayey SILT, some fine Sand	ML	0	
6	12				0	
	13				0	
7	14				0	
	15				0	
8	16				0	
	17				0	
9	18				0	
	19				0	
10	20				0	
11						
12						
13			End of boring @ 14 ft.			
14						
15						
16						
17						
18						
19						
20						

Well: 2567 MW6
Elev.:



THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS OR HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: UNITED STATES ARMY
Name of Facility: CAMP CHARLES WOOD
Location: TINTON FALLS BOROUGH, NEW JERSEY
NJPDES Permit No: NJ

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEPE's Water Allocation Section, 609-292-2957):

29-42586

This number must be permanently affixed to the well casing.

Longitude (one tenth of a second):

West

74° 04' 46.9"

Latitude (one tenth of a second):

North

40° 17' 43.8"

Elevation of Top of Casing (cap off)

36.34

Distance from Top of Casing (cap off) to ground

2.93

Owner's Well Number (As shown in the application or Plans):

2567-MW-7

Benchmark: NJGCS Monument No. 9235

Elevation = 56.69

AUTHENTICATION:

I declare under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Frederick W. Kocen Jr.
Professional Land Surveyor's Signature

Frederick W. Kocen Jr.
Professional Land Surveyor's Name

SEAL

N.J. Lic. # 34008
Professional Land Surveyor's License #

The Department reserves the right in cases of violation of permit specified ground water limits or Ground Water Quality Standards (NJAC 7:9-6.1 et seq.) to require that wells be resurveyed to an accuracy of one-hundredth of a second latitude and longitude. This shall not be considered to require a major modification of the NJPDES permit.



U.S. ARMY
FORT MONMOUTH
SELF-M-PW-EV

LOG OF BORING 2567 MW7

(Page 1 of 1)

U.S. ARMY
SELF-M-PW-EV
JOSEPH FALLON
BLDG. 2567
GROUNDWATER INVESTIGATION

DRILLING COMPANY : IPSI
DRILLER : MIKE
DRILLING METHOD : HOLLOW STEM AUGER
HOLE DIAMETER : 11 INCH
SAMPLING METHOD : 2 IN. SPLIT SPOON

GEOLOGIST : FRANK ACCORSI
DATE COMPLETED : 05/12/00
NJDEP PERMIT NO. :
NJDEP COORD. :

Depth in FEET	Samples	Blow Count	DESCRIPTION	USCS	OVA (PPM)	Well Construction Information
0	1		Brown coarse-med-fine SAND, little fine Gravel, trace Silt	GC	0	WELL CASING : MATERIAL : PVC DIAMETER : 4 inch JOINTS : threaded LENGTH : 3 feet WELL SCREEN : MATERIAL : PVC DIAMETER : 4 inch JOINTS : threaded OPENING : 0.010 inch LENGTH : 10 feet SAND PACK : Morie #1 ANNULUS SEAL : bentonite STICK UP : MATERIAL : steel DIAMETER : 6 inch
	2				0.4	
1	3				0.5	
	4				0.3	
2	5				0.4	
	6				0	
3	7				0	
	8				0	
4	9		Green brown coarse-med-fine SAND, little Silt, trace fine Gravel Wet at 5 ft.	GC	0	NOTES Development of the monitoring well was performed using a submersible pump until ground water was visibly free of sediments (approximately one-half hour).
	10				0	
5	11				0	
	12				0	
6	13				0	
	14				0	
7	15				0	
	16				0	
8	17		Green fine SAND, and Silt	SM	0	
	18				0	
9	19				0	
	20				0	
10					0	
11					0	
12					0	
13					0	
14			End of boring @ 14 ft.			

Well: 2567 MW7
Elev.:

Surface Casing
GROUT CASING
BENTONITE
SAND PACK SCREEN

APPENDIX F

Versar Current Conditions Site Photographs

**CURRENT SITE CONDITIONS
SITE 2567 – CHARLES WOOD AREA
FORT MONMOUTH, NEW JERSEY**



MONITORING WELL 2567-MW7



BUILDING 2567 AND GASOLINE PUMPS

APPENDIX G

Groundwater Sampling Laboratory Data Sheets

Data not provided in this file.

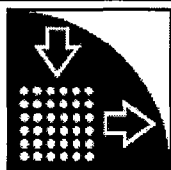
APPENDIX H

Geoprobe[®] Point Groundwater Sampling Laboratory Data Sheets

Data not provided in this file.

APPENDIX I

Slug Test Analyses and Raw Data

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

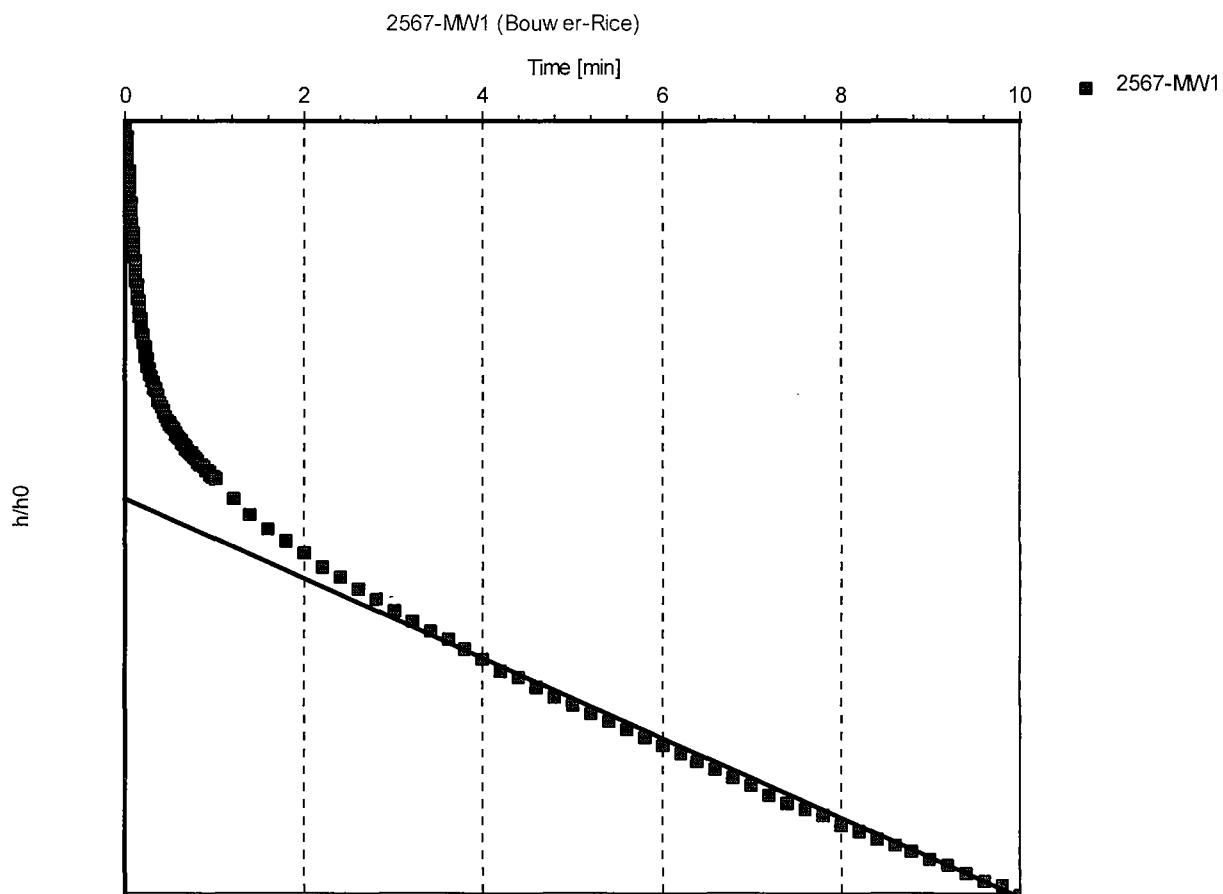
Phone: +1 519 746 1798

Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

Test name: 2567-MW1Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 3.51E+1 [ft/d]

Test parameters:

Test well: 2567-MW1

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 3 [ft]

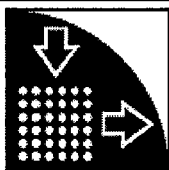
Casing radius: 0.833 [ft]

r(eff): 0.740 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/17/01

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

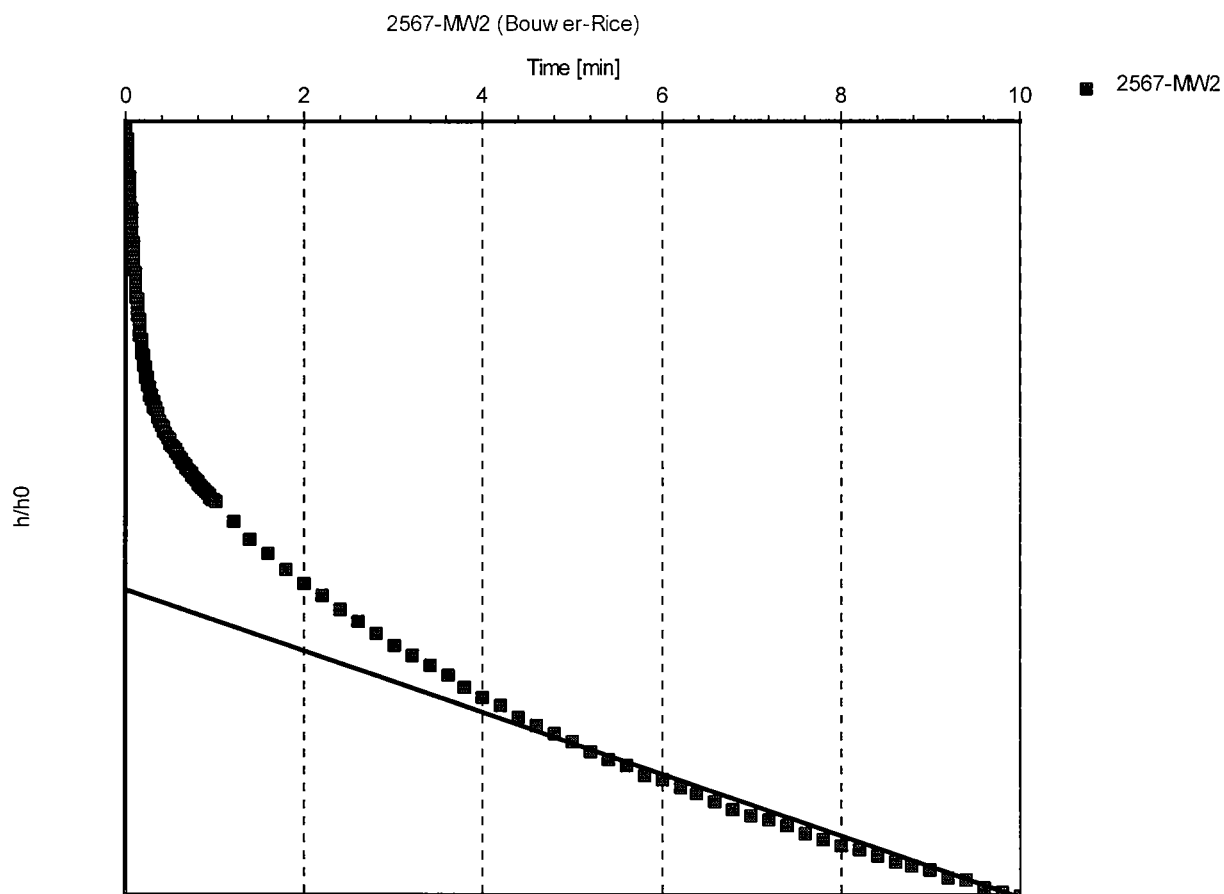
Phone: +1 519 746 1798

Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

Test name: 2567-MW2Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 2.85E+1 [ft/d]

Test parameters:

Test well: 2567-MW2

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 3 [ft]

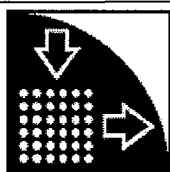
Casing radius: 0.833 [ft]

r(eff): 0.740 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/17/01

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

Phone: +1 519 746 1798

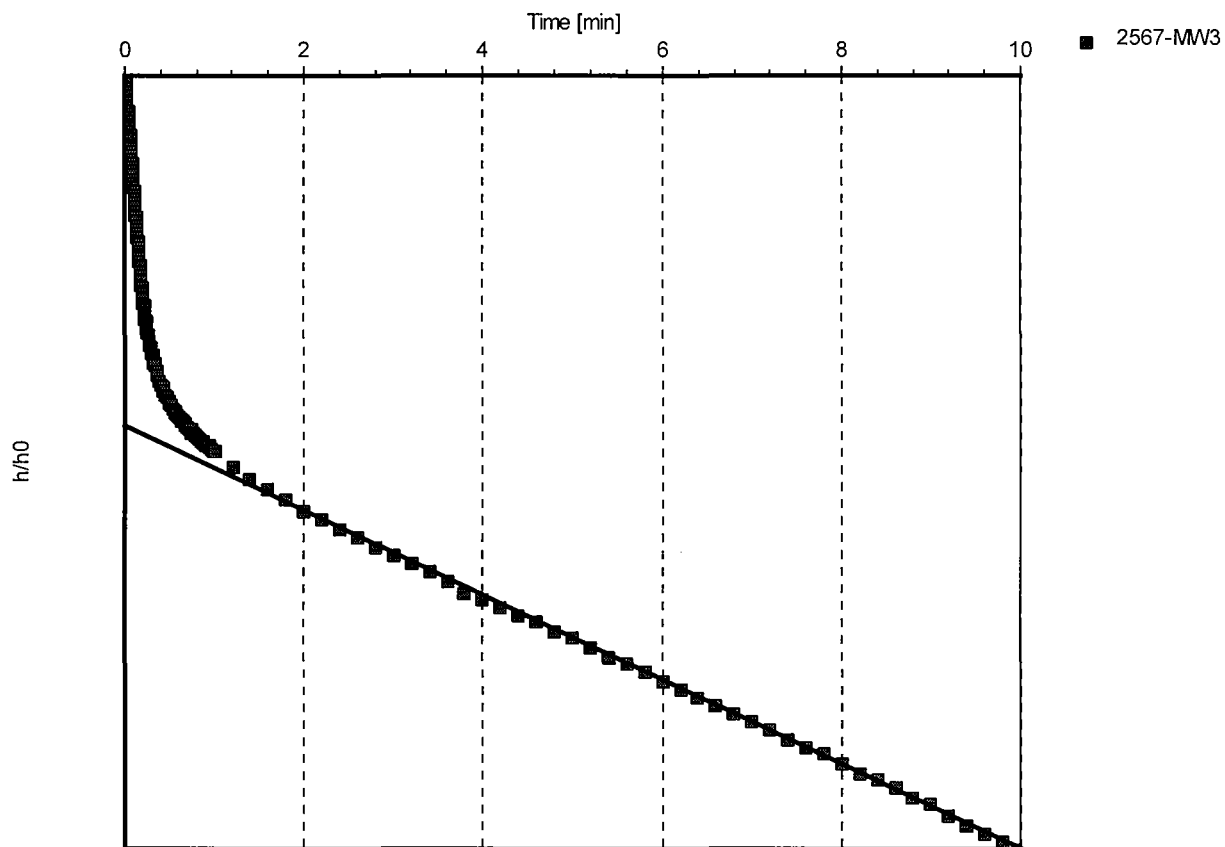
Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

2567-MW3 (Bouwer-Rice)

Test name: 2567-MW3Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 3.56E+1 [ft/d]

Test parameters:

Test well: 2567-MW3

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 3 [ft]

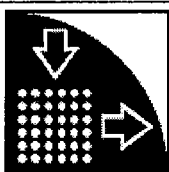
Casing radius: 0.833 [ft]

r(eff): 0.740 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/17/01

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

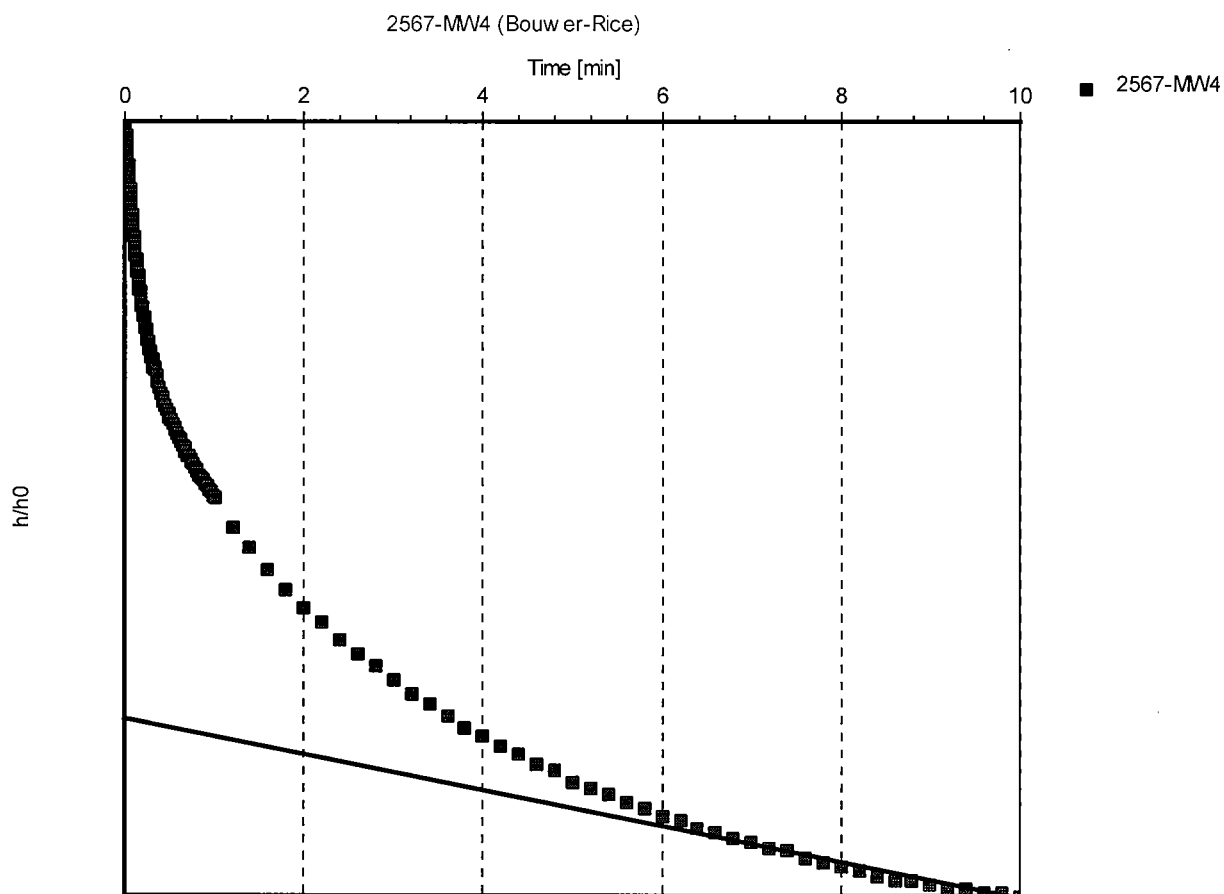
Phone: +1 519 746 1798

Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

Test name: 2567-MW4Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 2.02E+1 [ft/d]

Test parameters:

Test well: 2567-MW4

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 2 [ft]

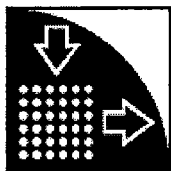
Casing radius: 0.833 [ft]

r(eff): 0.740 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/17/01

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

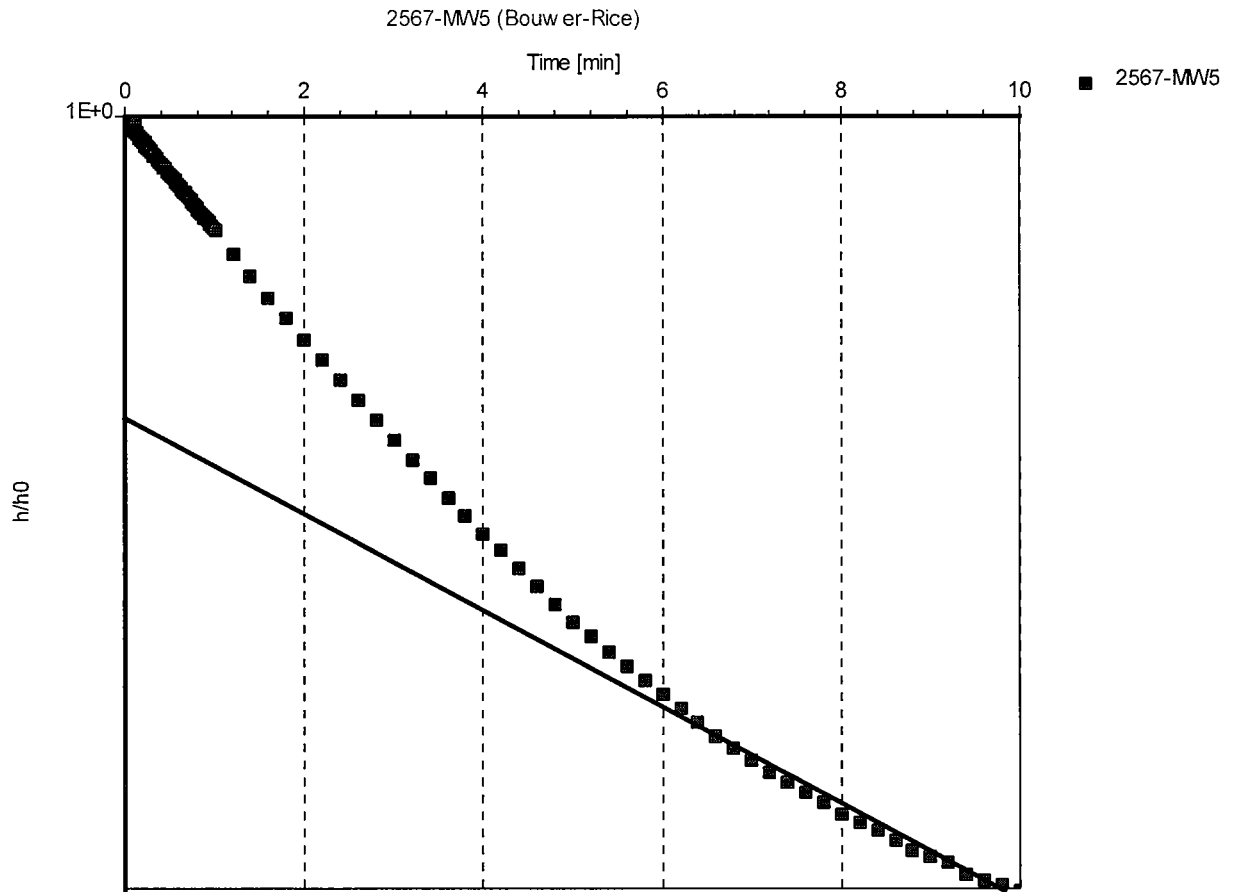
Phone: +1 519 746 1798

Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

Test name: 2567-MW5Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 2.44E+1 [ft/d]

Test parameters:

Test well: 2567-MW5

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 2.5 [ft]

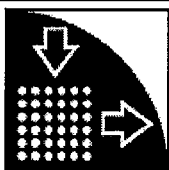
Casing radius: 0.666 [ft]

r(eff): 0.600 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/17/01

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

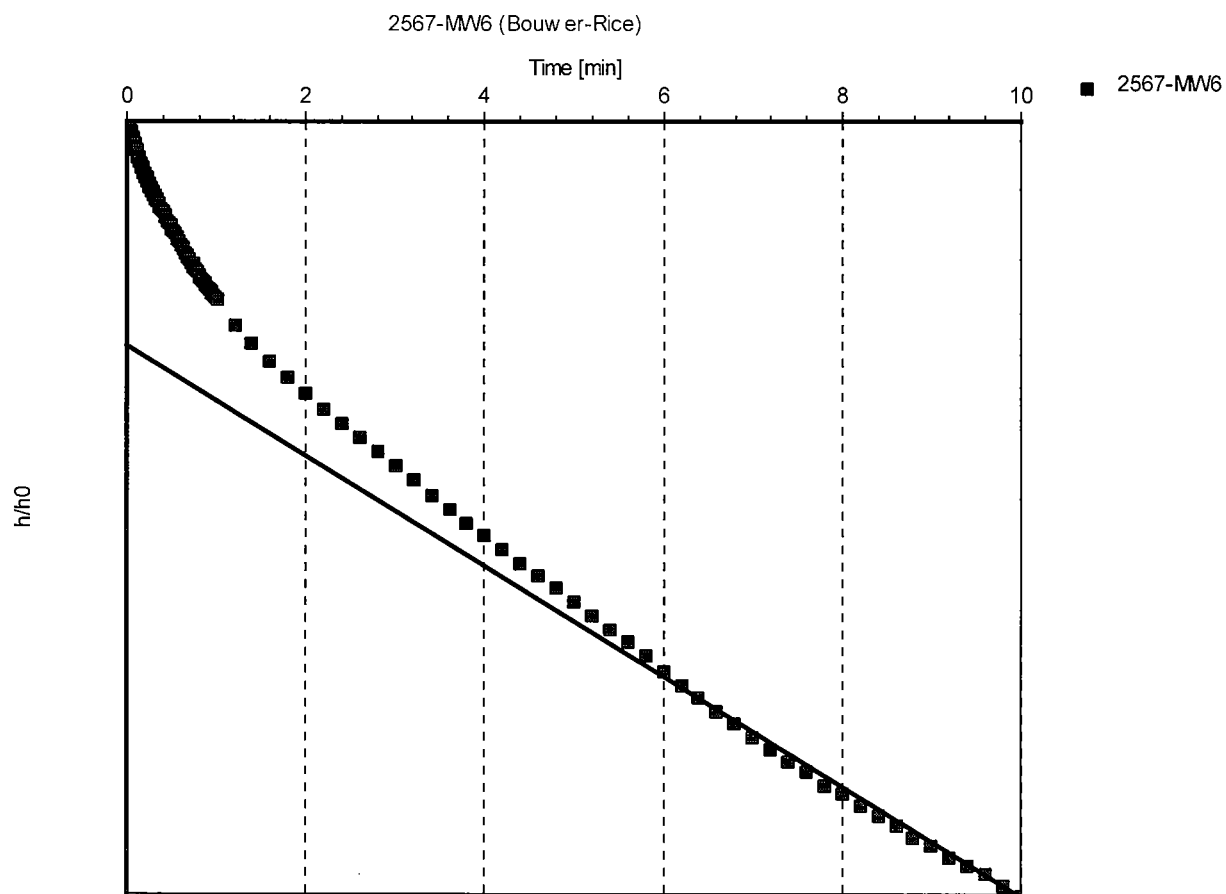
Phone: +1 519 746 1798

Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

Test name: 2567-MW6Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 2.36E+1 [ft/d]

Test parameters:

Test well: 2567-MW6

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 3 [ft]

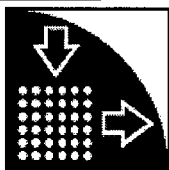
Casing radius: 0.666 [ft]

r(eff): 0.600 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/17/01

**Waterloo Hydrogeologic, Inc.**

180 Columbia St. Unit 1104

Waterloo, Ontario, Canada

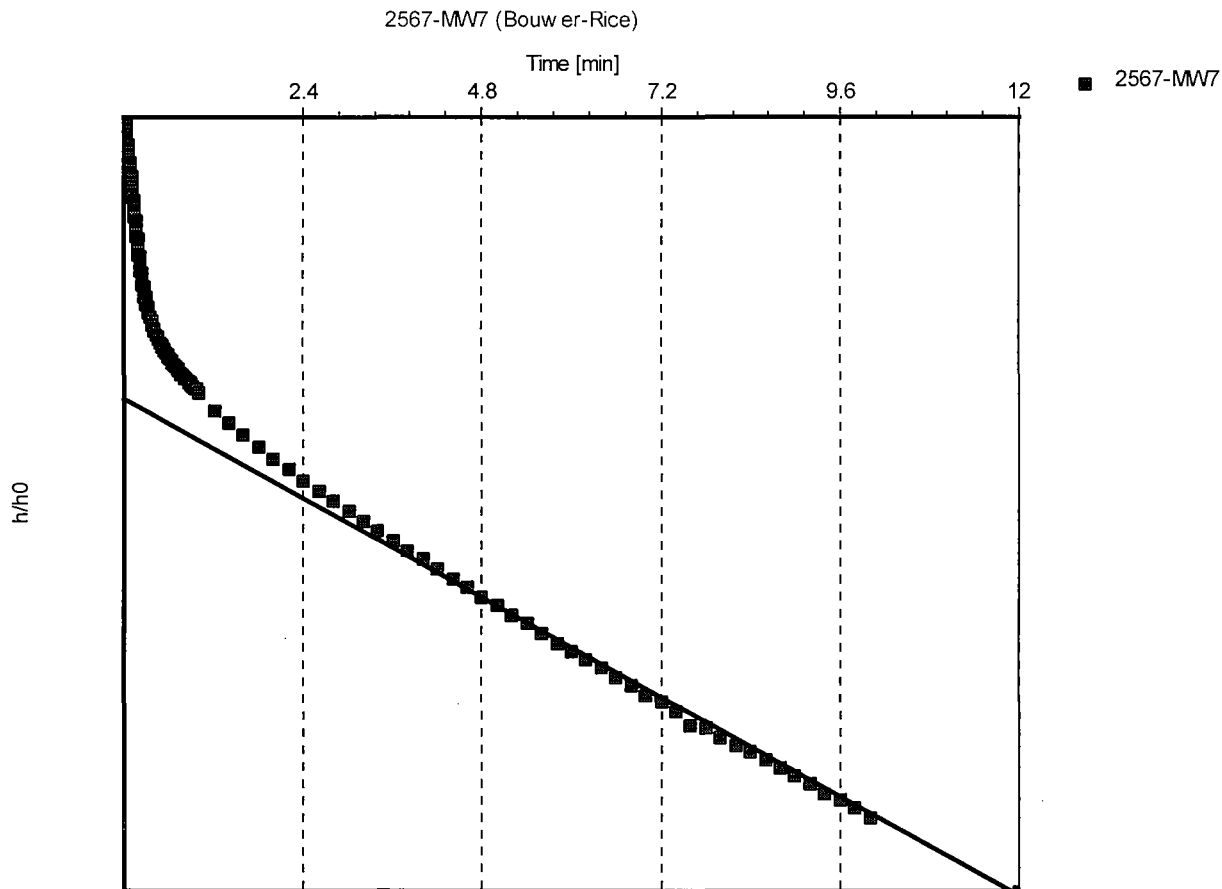
Phone: +1 519 746 1798

Pumping Test Analysis Report

Project: DO 19

No: 4936-119

Client: Fort Monmouth

Test name: 2567-MW7Analysis method: Bouwer-RiceAnalysis results:

Conductivity: 1.88E+1 [ft/d]

Test parameters:

Test well: 2567-MW7

Aquifer thickness: 100 [ft]

Screen radius: 0.333 [ft]

Gravel pack Porosity (%) 25

Screen length: 3 [ft]

Casing radius: 0.666 [ft]

r(eff): 0.600 [ft]

Comments:

Evaluated by: TJK/PS

Date: 8/16/01

SE1000C
Environmental Logger
08/17 16:17

Unit# 00001 Test 4

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	4.750
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/17 10:50:07

Elapsed Time	INPUT 1
-----	-----
0.0000	7.471
0.0033	7.430
0.0066	7.386
0.0100	7.361
0.0133	7.326
0.0166	7.285
0.0200	7.250
0.0233	7.225
0.0266	7.209
0.0300	7.174
0.0333	7.146
0.0366	7.121
0.0400	7.105
0.0433	7.058
0.0466	7.016
0.0500	6.991
0.0533	6.956
0.0566	6.938
0.0600	6.919
0.0633	6.893
0.0666	6.871
0.0700	6.843
0.0733	6.827
0.0766	6.808
0.0800	6.786

0.0833	6.764
0.0866	6.745
0.0900	6.726
0.0933	6.707
0.0966	6.691
0.1000	6.675
0.1033	6.657
0.1066	6.641
0.1100	6.625
0.1133	6.609
0.1166	6.593
0.1200	6.581
0.1233	6.565
0.1266	6.552
0.1300	6.540
0.1333	6.527
0.1366	6.518
0.1400	6.502
0.1433	6.492
0.1466	6.480
0.1500	6.470
0.1533	6.458
0.1566	6.448
0.1600	6.439
0.1633	6.429
0.1666	6.420
0.1700	6.410
0.1733	6.401
0.1766	6.391
0.1800	6.382
0.1833	6.372
0.1866	6.366
0.1900	6.357
0.1933	6.350
0.1966	6.341
0.2000	6.338
0.2033	6.331
0.2066	6.322
0.2100	6.316
0.2133	6.306
0.2166	6.300
0.2200	6.293
0.2233	6.290
0.2266	6.284
0.2300	6.278
0.2333	6.271
0.2366	6.265
0.2400	6.262

0.2433	6.256
0.2466	6.252
0.2500	6.246
0.2533	6.243
0.2566	6.237
0.2600	6.230
0.2633	6.227
0.2666	6.224
0.2700	6.218
0.2733	6.214
0.2766	6.211
0.2800	6.205
0.2833	6.202
0.2866	6.199
0.2900	6.196
0.2933	6.192
0.2966	6.189
0.3000	6.186
0.3033	6.183
0.3066	6.177
0.3100	6.173
0.3133	6.173
0.3166	6.170
0.3200	6.164
0.3233	6.164
0.3266	6.161
0.3300	6.158
0.3333	6.155
0.3500	6.142
0.3666	6.126
0.3833	6.117
0.4000	6.104
0.4166	6.095
0.4333	6.085
0.4500	6.076
0.4666	6.066
0.4833	6.060
0.5000	6.050
0.5166	6.044
0.5333	6.038
0.5500	6.031
0.5666	6.025
0.5833	6.019
0.6000	6.012
0.6166	6.006
0.6333	6.000
0.6500	5.997
0.6666	5.990

0.6833	5.984
0.7000	5.981
0.7166	5.975
0.7333	5.971
0.7500	5.965
0.7666	5.962
0.7833	5.956
0.8000	5.952
0.8166	5.946
0.8333	5.943
0.8500	5.940
0.8666	5.934
0.8833	5.934
0.9000	5.927
0.9166	5.924
0.9333	5.921
0.9500	5.915
0.9666	5.911
0.9833	5.908
1.0000	5.905
1.2000	5.855
1.4000	5.820
1.6000	5.788
1.8000	5.760
2.0000	5.735
2.2000	5.709
2.4000	5.687
2.6000	5.665
2.8000	5.646
3.0000	5.624
3.2000	5.608
3.4000	5.592
3.6000	5.577
3.8000	5.561
4.0000	5.545
4.2000	5.529
4.4000	5.520
4.6000	5.504
4.8000	5.491
5.0000	5.479
5.2000	5.469
5.4000	5.457
5.6000	5.447
5.8000	5.438
6.0000	5.428
6.2000	5.419
6.4000	5.409
6.6000	5.400

6.8000	5.390
7.0000	5.381
7.2000	5.371
7.4000	5.362
7.6000	5.356
7.8000	5.349
8.0000	5.340
8.2000	5.334
8.4000	5.327
8.6000	5.321
8.8000	5.315
9.0000	5.308
9.2000	5.302
9.4000	5.296
9.6000	5.289
9.8000	5.286
10.0000	5.277

SE1000C
Environmental Logger
08/17 16:22

Unit# 00001 Test 2

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	4.420
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/17 10:05:13

Elapsed Time	INPUT 1
-----	-----
0.0000	7.192
0.0033	7.157
0.0066	7.116
0.0100	7.078
0.0133	7.031
0.0166	6.986
0.0200	6.993
0.0233	6.945
0.0266	6.908
0.0300	6.873
0.0333	6.829
0.0366	6.781
0.0400	6.743
0.0433	6.709
0.0466	6.677
0.0500	6.642
0.0533	6.617
0.0566	6.589
0.0600	6.560
0.0633	6.522
0.0666	6.503
0.0700	6.478
0.0733	6.453
0.0766	6.428
0.0800	6.405

0.0833	6.380
0.0866	6.358
0.0900	6.336
0.0933	6.317
0.0966	6.295
0.1000	6.276
0.1033	6.257
0.1066	6.238
0.1100	6.219
0.1133	6.203
0.1166	6.184
0.1200	6.169
0.1233	6.153
0.1266	6.137
0.1300	6.121
0.1333	6.109
0.1366	6.093
0.1400	6.080
0.1433	6.068
0.1466	6.055
0.1500	6.042
0.1533	6.030
0.1566	6.017
0.1600	6.004
0.1633	5.995
0.1666	5.986
0.1700	5.973
0.1733	5.963
0.1766	5.954
0.1800	5.945
0.1833	5.935
0.1866	5.926
0.1900	5.919
0.1933	5.910
0.1966	5.903
0.2000	5.894
0.2033	5.888
0.2066	5.881
0.2100	5.872
0.2133	5.866
0.2166	5.859
0.2200	5.853
0.2233	5.847
0.2266	5.843
0.2300	5.837
0.2333	5.831
0.2366	5.828
0.2400	5.821

0.2433	5.815
0.2466	5.812
0.2500	5.806
0.2533	5.802
0.2566	5.799
0.2600	5.793
0.2633	5.790
0.2666	5.787
0.2700	5.780
0.2733	5.777
0.2766	5.774
0.2800	5.771
0.2833	5.768
0.2866	5.765
0.2900	5.761
0.2933	5.758
0.2966	5.755
0.3000	5.752
0.3033	5.746
0.3066	5.746
0.3100	5.742
0.3133	5.739
0.3166	5.736
0.3200	5.733
0.3233	5.730
0.3266	5.727
0.3300	5.723
0.3333	5.723
0.3500	5.708
0.3666	5.695
0.3833	5.686
0.4000	5.673
0.4166	5.663
0.4333	5.654
0.4500	5.645
0.4666	5.635
0.4833	5.629
0.5000	5.619
0.5166	5.613
0.5333	5.604
0.5500	5.597
0.5666	5.591
0.5833	5.585
0.6000	5.578
0.6166	5.572
0.6333	5.566
0.6500	5.559
0.6666	5.553

0.6833	5.547
0.7000	5.540
0.7166	5.537
0.7333	5.531
0.7500	5.525
0.7666	5.521
0.7833	5.515
0.8000	5.512
0.8166	5.506
0.8333	5.502
0.8500	5.496
0.8666	5.490
0.8833	5.487
0.9000	5.484
0.9166	5.477
0.9333	5.474
0.9500	5.471
0.9666	5.465
0.9833	5.461
1.0000	5.458
1.2000	5.408
1.4000	5.367
1.6000	5.335
1.8000	5.304
2.0000	5.275
2.2000	5.250
2.4000	5.225
2.6000	5.203
2.8000	5.180
3.0000	5.161
3.2000	5.143
3.4000	5.127
3.6000	5.111
3.8000	5.095
4.0000	5.079
4.2000	5.067
4.4000	5.051
4.6000	5.041
4.8000	5.029
5.0000	5.019
5.2000	5.007
5.4000	4.997
5.6000	4.988
5.8000	4.978
6.0000	4.972
6.2000	4.963
6.4000	4.956
6.6000	4.947

6.8000	4.940
7.0000	4.934
7.2000	4.928
7.4000	4.922
7.6000	4.915
7.8000	4.909
8.0000	4.903
8.2000	4.899
8.4000	4.893
8.6000	4.887
8.8000	4.884
9.0000	4.880
9.2000	4.874
9.4000	4.871
9.6000	4.865
9.8000	4.862
10.0000	4.858

SE1000C
Environmental Logger
08/17 16:24

Unit# 00001 Test 1

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	4.200
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/17 09:42:57

Elapsed Time	INPUT 1
-----	-----
0.0000	7.038
0.0033	7.013
0.0066	6.991
0.0100	6.991
0.0133	6.991
0.0166	6.959
0.0200	6.943
0.0233	6.915
0.0266	6.899
0.0300	6.842
0.0333	6.830
0.0366	6.804
0.0400	6.766
0.0433	6.754
0.0466	6.732
0.0500	6.716
0.0533	6.672
0.0566	6.675
0.0600	6.650
0.0633	6.628
0.0666	6.609
0.0700	6.590
0.0733	6.571
0.0766	6.552
0.0800	6.533

0.0833	6.514
0.0866	6.498
0.0900	6.476
0.0933	6.457
0.0966	6.441
0.1000	6.422
0.1033	6.406
0.1066	6.388
0.1100	6.372
0.1133	6.353
0.1166	6.337
0.1200	6.318
0.1233	6.302
0.1266	6.287
0.1300	6.271
0.1333	6.258
0.1366	6.239
0.1400	6.227
0.1433	6.211
0.1466	6.195
0.1500	6.182
0.1533	6.167
0.1566	6.154
0.1600	6.141
0.1633	6.129
0.1666	6.116
0.1700	6.100
0.1733	6.091
0.1766	6.078
0.1800	6.065
0.1833	6.053
0.1866	6.043
0.1900	6.031
0.1933	6.021
0.1966	6.009
0.2000	5.999
0.2033	5.990
0.2066	5.980
0.2100	5.971
0.2133	5.961
0.2166	5.955
0.2200	5.946
0.2233	5.936
0.2266	5.930
0.2300	5.920
0.2333	5.914
0.2366	5.908
0.2400	5.901

0.2433	5.895
0.2466	5.889
0.2500	5.882
0.2533	5.876
0.2566	5.870
0.2600	5.863
0.2633	5.857
0.2666	5.854
0.2700	5.848
0.2733	5.841
0.2766	5.838
0.2800	5.835
0.2833	5.829
0.2866	5.826
0.2900	5.819
0.2933	5.816
0.2966	5.813
0.3000	5.810
0.3033	5.803
0.3066	5.800
0.3100	5.797
0.3133	5.794
0.3166	5.791
0.3200	5.788
0.3233	5.784
0.3266	5.781
0.3300	5.778
0.3333	5.775
0.3500	5.759
0.3666	5.747
0.3833	5.734
0.4000	5.724
0.4166	5.715
0.4333	5.706
0.4500	5.696
0.4666	5.690
0.4833	5.680
0.5000	5.674
0.5166	5.668
0.5333	5.661
0.5500	5.655
0.5666	5.649
0.5833	5.646
0.6000	5.639
0.6166	5.636
0.6333	5.630
0.6500	5.627
0.6666	5.623

0.6833	5.617
0.7000	5.614
0.7166	5.611
0.7333	5.608
0.7500	5.601
0.7666	5.601
0.7833	5.595
0.8000	5.592
0.8166	5.589
0.8333	5.586
0.8500	5.582
0.8666	5.579
0.8833	5.576
0.9000	5.573
0.9166	5.570
0.9333	5.570
0.9500	5.567
0.9666	5.563
0.9833	5.560
1.0000	5.557
1.2000	5.522
1.4000	5.497
1.6000	5.475
1.8000	5.456
2.0000	5.434
2.2000	5.418
2.4000	5.399
2.6000	5.384
2.8000	5.368
3.0000	5.352
3.2000	5.339
3.4000	5.327
3.6000	5.311
3.8000	5.292
4.0000	5.282
4.2000	5.270
4.4000	5.257
4.6000	5.248
4.8000	5.235
5.0000	5.226
5.2000	5.213
5.4000	5.200
5.6000	5.191
5.8000	5.181
6.0000	5.169
6.2000	5.159
6.4000	5.150
6.6000	5.140

6.8000	5.131
7.0000	5.121
7.2000	5.112
7.4000	5.102
7.6000	5.093
7.8000	5.087
8.0000	5.077
8.2000	5.068
8.4000	5.061
8.6000	5.055
8.8000	5.046
9.0000	5.039
9.2000	5.030
9.4000	5.020
9.6000	5.014
9.8000	5.008
10.0000	5.001

SE1000C
Environmental Logger
08/17 16:19

Unit# 00001 Test 3

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	3.410
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/17 10:24:32

Elapsed Time	INPUT 1
-----	-----
0.0000	5.222
0.0033	5.200
0.0066	5.181
0.0100	5.159
0.0133	5.140
0.0166	5.121
0.0200	5.102
0.0233	5.083
0.0266	5.067
0.0300	5.048
0.0333	5.032
0.0366	5.013
0.0400	4.998
0.0433	4.982
0.0466	4.966
0.0500	4.950
0.0533	4.935
0.0566	4.919
0.0600	4.906
0.0633	4.890
0.0666	4.878
0.0700	4.865
0.0733	4.849
0.0766	4.837
0.0800	4.824

0.0833	4.811
0.0866	4.799
0.0900	4.789
0.0933	4.777
0.0966	4.764
0.1000	4.755
0.1033	4.745
0.1066	4.732
0.1100	4.723
0.1133	4.713
0.1166	4.701
0.1200	4.691
0.1233	4.682
0.1266	4.672
0.1300	4.666
0.1333	4.657
0.1366	4.647
0.1400	4.641
0.1433	4.631
0.1466	4.622
0.1500	4.616
0.1533	4.606
0.1566	4.600
0.1600	4.594
0.1633	4.584
0.1666	4.578
0.1700	4.571
0.1733	4.565
0.1766	4.559
0.1800	4.552
0.1833	4.546
0.1866	4.540
0.1900	4.534
0.1933	4.527
0.1966	4.524
0.2000	4.518
0.2033	4.511
0.2066	4.505
0.2100	4.502
0.2133	4.496
0.2166	4.492
0.2200	4.486
0.2233	4.480
0.2266	4.477
0.2300	4.470
0.2333	4.467
0.2366	4.461
0.2400	4.458

0.2433	4.455
0.2466	4.448
0.2500	4.445
0.2533	4.442
0.2566	4.439
0.2600	4.432
0.2633	4.429
0.2666	4.423
0.2700	4.420
0.2733	4.417
0.2766	4.414
0.2800	4.410
0.2833	4.407
0.2866	4.404
0.2900	4.401
0.2933	4.395
0.2966	4.391
0.3000	4.388
0.3033	4.385
0.3066	4.382
0.3100	4.379
0.3133	4.376
0.3166	4.372
0.3200	4.369
0.3233	4.366
0.3266	4.363
0.3300	4.360
0.3333	4.357
0.3500	4.344
0.3666	4.328
0.3833	4.316
0.4000	4.303
0.4166	4.294
0.4333	4.284
0.4500	4.275
0.4666	4.265
0.4833	4.256
0.5000	4.246
0.5166	4.240
0.5333	4.234
0.5500	4.224
0.5666	4.218
0.5833	4.211
0.6000	4.205
0.6166	4.199
0.6333	4.193
0.6500	4.186
0.6666	4.180

0.6833	4.174
0.7000	4.167
0.7166	4.164
0.7333	4.158
0.7500	4.155
0.7666	4.148
0.7833	4.142
0.8000	4.139
0.8166	4.133
0.8333	4.126
0.8500	4.123
0.8666	4.120
0.8833	4.117
0.9000	4.110
0.9166	4.107
0.9333	4.101
0.9500	4.098
0.9666	4.095
0.9833	4.088
1.0000	4.085
1.2000	4.032
1.4000	3.997
1.6000	3.962
1.8000	3.934
2.0000	3.908
2.2000	3.886
2.4000	3.864
2.6000	3.845
2.8000	3.829
3.0000	3.814
3.2000	3.798
3.4000	3.785
3.6000	3.773
3.8000	3.760
4.0000	3.751
4.2000	3.741
4.4000	3.732
4.6000	3.722
4.8000	3.716
5.0000	3.706
5.2000	3.700
5.4000	3.694
5.6000	3.687
5.8000	3.681
6.0000	3.675
6.2000	3.672
6.4000	3.665
6.6000	3.662

6.8000	3.656
7.0000	3.653
7.2000	3.649
7.4000	3.646
7.6000	3.640
7.8000	3.637
8.0000	3.634
8.2000	3.631
8.4000	3.627
8.6000	3.624
8.8000	3.624
9.0000	3.621
9.2000	3.618
9.4000	3.618
9.6000	3.615
9.8000	3.615
10.0000	3.612

SE1000C
Environmental Logger
08/17 16:13

Unit# 00001 Test 5

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	7.480
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/17 11:21:00

Elapsed Time	INPUT 1
-----	-----
0.0000	10.410
0.0033	10.416
0.0066	10.410
0.0100	10.410
0.0133	10.410
0.0166	10.394
0.0200	10.394
0.0233	10.384
0.0266	10.384
0.0300	10.378
0.0333	10.372
0.0366	10.362
0.0400	10.359
0.0433	10.331
0.0466	10.356
0.0500	10.356
0.0533	10.350
0.0566	10.359
0.0600	10.305
0.0633	10.327
0.0666	10.321
0.0700	10.321
0.0733	10.312
0.0766	10.381
0.0800	10.340

0.0833	10.337
0.0866	10.309
0.0900	10.315
0.0933	10.299
0.0966	10.315
0.1000	10.365
0.1033	10.362
0.1066	10.299
0.1100	10.296
0.1133	10.286
0.1166	10.302
0.1200	10.299
0.1233	10.290
0.1266	10.283
0.1300	10.277
0.1333	10.277
0.1366	10.274
0.1400	10.264
0.1433	10.264
0.1466	10.258
0.1500	10.236
0.1533	10.258
0.1566	10.249
0.1600	10.249
0.1633	10.245
0.1666	10.242
0.1700	10.239
0.1733	10.236
0.1766	10.233
0.1800	10.230
0.1833	10.226
0.1866	10.223
0.1900	10.220
0.1933	10.217
0.1966	10.214
0.2000	10.214
0.2033	10.211
0.2066	10.204
0.2100	10.201
0.2133	10.201
0.2166	10.198
0.2200	10.204
0.2233	10.192
0.2266	10.185
0.2300	10.189
0.2333	10.185
0.2366	10.182
0.2400	10.179

0.2433	10.176
0.2466	10.176
0.2500	10.173
0.2533	10.166
0.2566	10.163
0.2600	10.160
0.2633	10.157
0.2666	10.157
0.2700	10.154
0.2733	10.151
0.2766	10.148
0.2800	10.144
0.2833	10.141
0.2866	10.138
0.2900	10.138
0.2933	10.135
0.2966	10.132
0.3000	10.129
0.3033	10.125
0.3066	10.125
0.3100	10.122
0.3133	10.116
0.3166	10.116
0.3200	10.113
0.3233	10.110
0.3266	10.106
0.3300	10.106
0.3333	10.103
0.3500	10.088
0.3666	10.075
0.3833	10.059
0.4000	10.046
0.4166	10.034
0.4333	10.021
0.4500	10.009
0.4666	9.993
0.4833	9.980
0.5000	9.967
0.5166	9.955
0.5333	9.942
0.5500	9.930
0.5666	9.917
0.5833	9.904
0.6000	9.892
0.6166	9.879
0.6333	9.870
0.6500	9.857
0.6666	9.844

0.6833	9.832
0.7000	9.819
0.7166	9.806
0.7333	9.794
0.7500	9.781
0.7666	9.772
0.7833	9.759
0.8000	9.750
0.8166	9.737
0.8333	9.724
0.8500	9.712
0.8666	9.702
0.8833	9.690
0.9000	9.680
0.9166	9.668
0.9333	9.658
0.9500	9.645
0.9666	9.636
0.9833	9.627
1.0000	9.614
1.2000	9.469
1.4000	9.355
1.6000	9.248
1.8000	9.150
2.0000	9.055
2.2000	8.970
2.4000	8.888
2.6000	8.812
2.8000	8.742
3.0000	8.676
3.2000	8.616
3.4000	8.559
3.6000	8.506
3.8000	8.458
4.0000	8.411
4.2000	8.370
4.4000	8.329
4.6000	8.291
4.8000	8.256
5.0000	8.221
5.2000	8.193
5.4000	8.165
5.6000	8.139
5.8000	8.117
6.0000	8.095
6.2000	8.073
6.4000	8.054
6.6000	8.035

6.8000	8.019
7.0000	8.004
7.2000	7.988
7.4000	7.975
7.6000	7.963
7.8000	7.953
8.0000	7.940
8.2000	7.931
8.4000	7.922
8.6000	7.912
8.8000	7.903
9.0000	7.896
9.2000	7.890
9.4000	7.880
9.6000	7.874
9.8000	7.871
10.0000	7.865

SE1000C
Environmental Logger
08/17 16:27

Unit# 00001 Test 0

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	7.850
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/17 09:11:43

Elapsed Time	INPUT 1
-----	-----
0.0000	10.698
0.0033	10.691
0.0066	10.685
0.0100	10.682
0.0133	10.672
0.0166	10.656
0.0200	10.647
0.0233	10.641
0.0266	10.634
0.0300	10.647
0.0333	10.622
0.0366	10.622
0.0400	10.603
0.0433	10.603
0.0466	10.603
0.0500	10.593
0.0533	10.587
0.0566	10.578
0.0600	10.578
0.0633	10.568
0.0666	10.549
0.0700	10.559
0.0733	10.552
0.0766	10.549
0.0800	10.536

0.0833	10.518
0.0866	10.521
0.0900	10.521
0.0933	10.511
0.0966	10.508
0.1000	10.502
0.1033	10.495
0.1066	10.486
0.1100	10.483
0.1133	10.499
0.1166	10.451
0.1200	10.454
0.1233	10.454
0.1266	10.448
0.1300	10.442
0.1333	10.432
0.1366	10.435
0.1400	10.426
0.1433	10.426
0.1466	10.413
0.1500	10.410
0.1533	10.407
0.1566	10.401
0.1600	10.398
0.1633	10.391
0.1666	10.388
0.1700	10.385
0.1733	10.379
0.1766	10.375
0.1800	10.366
0.1833	10.363
0.1866	10.357
0.1900	10.357
0.1933	10.353
0.1966	10.344
0.2000	10.341
0.2033	10.338
0.2066	10.334
0.2100	10.328
0.2133	10.325
0.2166	10.319
0.2200	10.315
0.2233	10.312
0.2266	10.309
0.2300	10.306
0.2333	10.300
0.2366	10.297
0.2400	10.293

0.2433	10.290
0.2466	10.287
0.2500	10.281
0.2533	10.278
0.2566	10.274
0.2600	10.271
0.2633	10.268
0.2666	10.265
0.2700	10.259
0.2733	10.255
0.2766	10.252
0.2800	10.249
0.2833	10.246
0.2866	10.240
0.2900	10.237
0.2933	10.237
0.2966	10.230
0.3000	10.227
0.3033	10.224
0.3066	10.221
0.3100	10.218
0.3133	10.214
0.3166	10.211
0.3200	10.208
0.3233	10.205
0.3266	10.202
0.3300	10.199
0.3333	10.192
0.3500	10.177
0.3666	10.158
0.3833	10.145
0.4000	10.129
0.4166	10.113
0.4333	10.098
0.4500	10.082
0.4666	10.069
0.4833	10.053
0.5000	10.041
0.5166	10.025
0.5333	10.016
0.5500	10.000
0.5666	9.987
0.5833	9.974
0.6000	9.959
0.6166	9.946
0.6333	9.933
0.6500	9.921
0.6666	9.908

0.6833	9.899
0.7000	9.886
0.7166	9.873
0.7333	9.864
0.7500	9.851
0.7666	9.839
0.7833	9.829
0.8000	9.817
0.8166	9.807
0.8333	9.798
0.8500	9.788
0.8666	9.776
0.8833	9.766
0.9000	9.760
0.9166	9.747
0.9333	9.738
0.9500	9.731
0.9666	9.722
0.9833	9.712
1.0000	9.706
1.2000	9.602
1.4000	9.529
1.6000	9.460
1.8000	9.403
2.0000	9.349
2.2000	9.302
2.4000	9.255
2.6000	9.213
2.8000	9.172
3.0000	9.135
3.2000	9.097
3.4000	9.059
3.6000	9.024
3.8000	8.992
4.0000	8.961
4.2000	8.932
4.4000	8.904
4.6000	8.879
4.8000	8.854
5.0000	8.828
5.2000	8.803
5.4000	8.778
5.6000	8.756
5.8000	8.734
6.0000	8.711
6.2000	8.689
6.4000	8.670
6.6000	8.651

6.8000	8.636
7.0000	8.617
7.2000	8.601
7.4000	8.588
7.6000	8.576
7.8000	8.560
8.0000	8.550
8.2000	8.538
8.4000	8.528
8.6000	8.516
8.8000	8.506
9.0000	8.497
9.2000	8.487
9.4000	8.478
9.6000	8.471
9.8000	8.462
10.0000	8.453

SE1000C
Environmental Logger
08/16 14:09

Unit# 00001 Test 18

Setups:	INPUT 1
-----	-----
Type	Level (F)
Mode	TOC
I.D.	16426

Reference	7.650
Linearity	0.000
Scale factor	10.000
Offset	-0.330
Delay mSEC	50.000

Step 0 08/16 08:31:23

Elapsed Time	INPUT 1
-----	-----
0.0000	10.431
0.0033	10.406
0.0066	10.387
0.0100	10.374
0.0133	10.368
0.0166	10.352
0.0200	10.321
0.0233	10.311
0.0266	10.283
0.0300	10.277
0.0333	10.248
0.0366	10.245
0.0400	10.226
0.0433	10.220
0.0466	10.191
0.0500	10.175
0.0533	10.153
0.0566	10.141
0.0600	10.125
0.0633	10.106
0.0666	10.131
0.0700	10.093
0.0733	10.081
0.0766	10.074
0.0800	10.055

0.0833	10.030
0.0866	10.024
0.0900	10.008
0.0933	9.992
0.0966	10.008
0.1000	9.980
0.1033	9.970
0.1066	9.951
0.1100	9.932
0.1133	9.907
0.1166	9.904
0.1200	9.891
0.1233	9.875
0.1266	9.860
0.1300	9.847
0.1333	9.834
0.1366	9.819
0.1400	9.806
0.1433	9.790
0.1466	9.778
0.1500	9.765
0.1533	9.752
0.1566	9.743
0.1600	9.730
0.1633	9.718
0.1666	9.705
0.1700	9.695
0.1733	9.680
0.1766	9.670
0.1800	9.658
0.1833	9.645
0.1866	9.636
0.1900	9.629
0.1933	9.613
0.1966	9.604
0.2000	9.591
0.2033	9.582
0.2066	9.566
0.2100	9.560
0.2133	9.547
0.2166	9.541
0.2200	9.528
0.2233	9.519
0.2266	9.509
0.2300	9.503
0.2333	9.493
0.2366	9.484
0.2400	9.474

0.2433	9.468
0.2466	9.462
0.2500	9.452
0.2533	9.446
0.2566	9.440
0.2600	9.433
0.2633	9.427
0.2666	9.421
0.2700	9.414
0.2733	9.408
0.2766	9.402
0.2800	9.396
0.2833	9.392
0.2866	9.386
0.2900	9.383
0.2933	9.377
0.2966	9.370
0.3000	9.367
0.3033	9.361
0.3066	9.358
0.3100	9.355
0.3133	9.348
0.3166	9.345
0.3200	9.342
0.3233	9.339
0.3266	9.336
0.3300	9.329
0.3333	9.326
0.3500	9.307
0.3666	9.291
0.3833	9.276
0.4000	9.263
0.4166	9.250
0.4333	9.241
0.4500	9.228
0.4666	9.219
0.4833	9.209
0.5000	9.200
0.5166	9.190
0.5333	9.181
0.5500	9.178
0.5666	9.168
0.5833	9.162
0.6000	9.156
0.6166	9.146
0.6333	9.140
0.6500	9.133
0.6666	9.127

0.6833	9.124
0.7000	9.115
0.7166	9.111
0.7333	9.105
0.7500	9.099
0.7666	9.092
0.7833	9.089
0.8000	9.083
0.8166	9.077
0.8333	9.073
0.8500	9.067
0.8666	9.064
0.8833	9.061
0.9000	9.055
0.9166	9.051
0.9333	9.045
0.9500	9.042
0.9666	9.039
0.9833	9.032
1.0000	9.029
1.2000	8.972
1.4000	8.931
1.6000	8.897
1.8000	8.862
2.0000	8.827
2.2000	8.799
2.4000	8.770
2.6000	8.742
2.8000	8.717
3.0000	8.695
3.2000	8.669
3.4000	8.650
3.6000	8.628
3.8000	8.606
4.0000	8.587
4.2000	8.565
4.4000	8.546
4.6000	8.530
4.8000	8.511
5.0000	8.496
5.2000	8.480
5.4000	8.464
5.6000	8.448
5.8000	8.429
6.0000	8.417
6.2000	8.404
6.4000	8.391
6.6000	8.376

6.8000	8.366
7.0000	8.350
7.2000	8.341
7.4000	8.328
7.6000	8.309
7.8000	8.306
8.0000	8.294
8.2000	8.284
8.4000	8.275
8.6000	8.265
8.8000	8.256
9.0000	8.246
9.2000	8.237
9.4000	8.227
9.6000	8.221
9.8000	8.212
10.0000	8.202
12.0000	8.133

APPENDIX J

Sensitive Receptor Survey



EDR Offsite Receptor Report

**Fort Monmouth - Main Post
DPW Building 173
Eatontown, NJ 07724**

Inquiry Number: 0695817.1r

October 24, 2001

***The Source
For Environmental
Risk Management
Data***

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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Census Map	3
Census Findings	4
Receptor Map	5
Map Findings	6
Records Searched/Data Currency Tracking Addendum	10

Thank you for your business
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer and Other Information

This Report contains information obtained from a variety of public and other sources and Environmental Data Resources, Inc. (EDR) makes no representation or warranty regarding the accuracy, reliability, quality, suitability, or completeness of said information or the information contained in this report. The customer shall assume full responsibility for the use of this report.

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EXECUTIVE SUMMARY

A search of available records was conducted by Environmental Data Resources, Inc. (EDR). The EDR Offsite Receptor Report provides information which may be used to comply with the Clean Air Act Risk Management Program 112-R.

"The rule requires that you estimate in the RMP residential populations within the circle defined by the endpoint for your worst-case and alternative release scenarios (i.e., the center of the circle is the point of release and the radius is the distance to the endpoint). In addition, you must report in the RMP whether certain types of public receptors and environmental receptors are within the circles."

The address of the subject property, for which the search was intended, is:

FORT MONMOUTH - MAIN POST
DPW BUILDING 173
EATONTOWN, NJ 07724

Distance Searched: 2.000 miles from subject property

RECEPTOR SUMMARY

An X indicates the presence of the receptor within the search radius.

Residential Population

Estimated population within search radius: 21254 persons.

Other Public Receptors

Type	Within Search Radius	Sites Total
Day Care Centers:	☒	4
Medical Centers:	☐	
Nursing Homes:	☐	
Schools:	☒	12
Hospitals:	☐	
Arena:	☐	
Prison:	☐	

Environmental Receptors

Type	Within Search Radius	Sites Total
Federal Land:	☒	2

CENSUS MAP - 0695817.1r



- ★ Target Property
- ∨ Roads
- ∨ Waterways
- ∨ Census Tracts

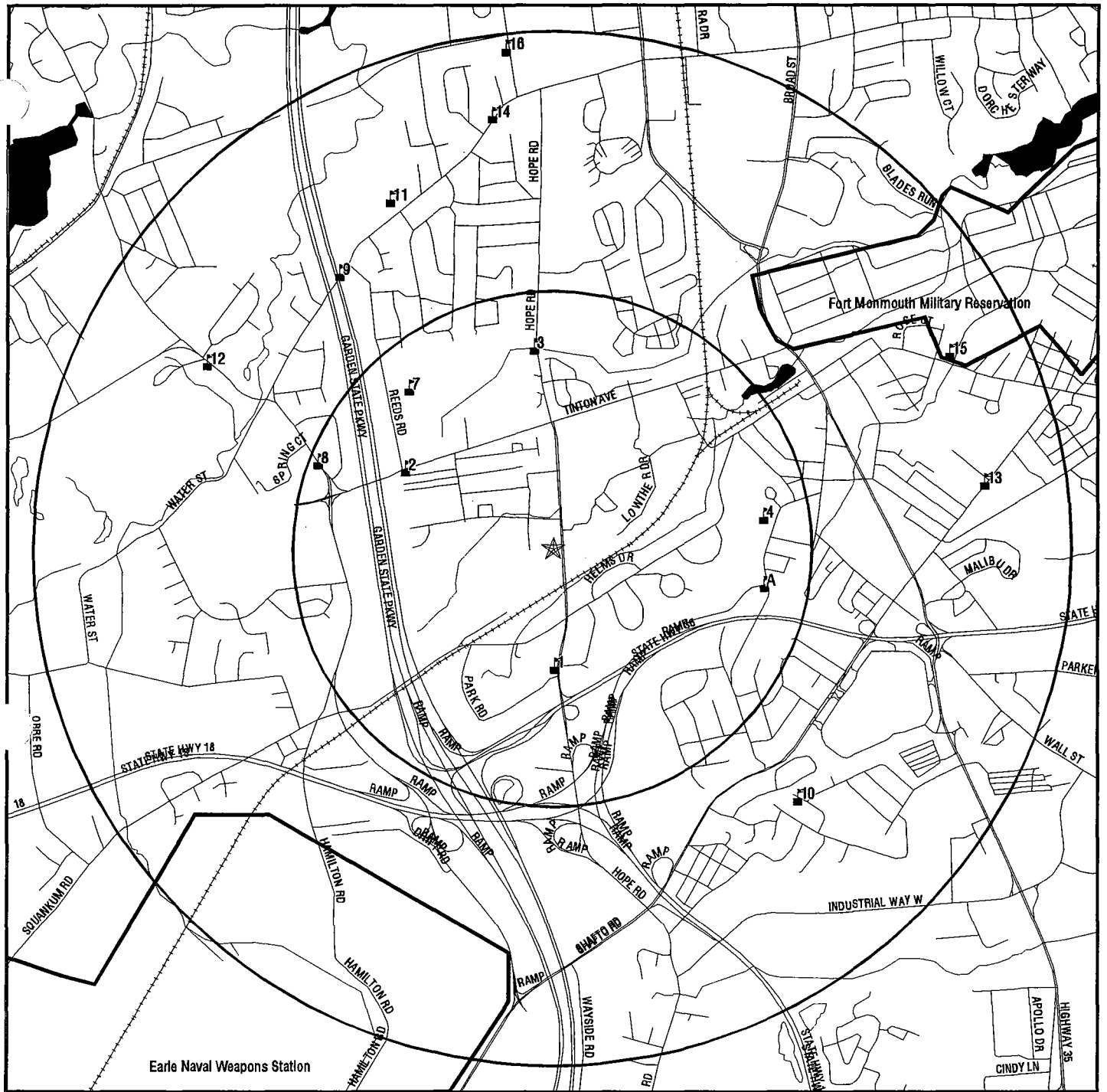


TARGET PROPERTY: ADDRESS: CITY/STATE/ZIP: LAT/LONG:	Fort Monmouth - Main Post DPW Building 173 Eatontown NJ 07724 40.2958 / 74.0794	CUSTOMER: CONTACT: INQUIRY #: DATE:	Versar, Inc. Audrey Romano 0695817.1r October 24, 2001 6:59 pm
--	--	--	---

CENSUS FINDINGS

Map ID	Tract Number	Total Population	Population in Radius	Total Area(sq.mi.)	Area in Radius(sq.mi.)
T1	8099.02	2834	126.7	15.52	0.69
T2	8043.00	3096	767.0	2.23	0.55
T3	8045.00	5299	3551.2	2.87	1.92
T4	8046.00	1743	1532.9	3.05	2.68
T5	8044.00	1098	1098.0	0.10	0.10
T6	8049.00	638	581.2	0.35	0.32
T7	8050.01	4589	4589.0	1.00	1.00
T8	8050.02	3708	2684.8	1.22	0.89
T9	8047.97	1713	1713.0	0.41	0.41
T10	8047.98	1737	1737.0	0.43	0.43
T11	8051.00	3152	2077.9	2.95	1.95
T12	8048.00	3582	541.4	9.26	1.40
T13	8065.01	1971	253.4	1.28	0.16

RECEPTOR MAP - 0695817.1r



- ★ Target Property
- Roads
- Waterways
- Environmental or Public Receptor
- Federal Lands Linear Features
- Federal Lands Area

0 1/2 1 2 Miles

TARGET PROPERTY: Fort Monmouth - Main Post
ADDRESS: DPW Building 173
CITY/STATE/ZIP: Eatontown NJ 07724
LAT/LONG: 40.2958 / 74.0794

CUSTOMER: Versar, Inc.
CONTACT: Audrey Romano
INQUIRY #: 0695817.1r
DATE: October 24, 2001 6:59 pm

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	EDR ID Database
1 South 1/4-1/2 mi 2418 Higher	Name: Kid's Campus ID: 585450963 Site Type: Daycare ctr	DAY1045385 DAYCARE
2 WNW 1/2-1 mi 3406 Higher	Name: KIVA HIGH SCHOOL NCES ID: 341750006094 Address: 537 TINTON AVENUE EATONTOWN, NJ 07724 School ID: 53060 Telephone: 732-542-5455 Local Code: Urban Fringe of Large City School Type: Special Ed. Schools School Level: Other County: MONMOUTH Lowest Grade: Ungraded Highest Grade: Ungraded	341750006094 CCD
3 North 1/2-1 mi 4137 Higher	Name: RANNEY SCHOOL ID: 9023 Site Type: Private sch.	PRV1007246 PRV_SCH
4 East 1/2-1 mi 4337 Higher	Name: Vetter School ID: 882586 Site Type: school Latitude: 40.29700 Longitude: -74.06000	GNS0931468 GNIS_SCH
A5 East 1/2-1 mi 4363 Higher	Name: MARGARET L. VETTER E.S. NCES ID: 340441003768 Address: 3 GRANT AVENUE EATONTOWN, NJ 07724 School ID: 52911 Telephone: 732-935-3330 Local Code: Urban Fringe of Large City School Type: Regular Elementary and Secondary Schools School Level: Primary County: MONMOUTH Lowest Grade: Kindergarten Highest Grade: 06	340441003768 CCD

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	EDR ID Database
A6 East 1/2-1 mi 4370 Higher	Name: MEMORIAL E.S. NCES ID: 340441003770 Address: 7 GRANT AVENUE EATONTOWN, NJ 07724 School ID: 52912 Telephone: 732-935-3321 Local Code: Urban Fringe of Large City School Type: Regular Elementary and Secondary Schools School Level: Middle County: MONMOUTH Lowest Grade: 07 Highest Grade: 08	340441003770 CCD
7 NW 1/2-1 mi 4396 Higher	Name: Monmouth Regional High School ID: 883505 Site Type: school Latitude: 40.30500 Longitude: -74.09000	GNS0927201 GNIS_SCH
8 WNW 1/2-1 mi 5088 Higher	Name: TINTON FALLS M.S. NCES ID: 341620004116 Address: 674 TINTON AVENUE EATONTOWN, NJ 07724 School ID: 53044 Telephone: 732-542-0775 Local Code: Urban Fringe of Large City School Type: Regular Elementary and Secondary Schools School Level: Middle County: MONMOUTH Lowest Grade: 06 Highest Grade: 08	341620004116 CCD
NA NE 1-2 mi 6231 NA	Name: Fort Monmouth Military Reservation ID: 29120 State FIPS: 34 Feature: Army DOD	US0029120 FED_LAND
9 NW 1-2 mi 7109 Higher	Name: Winding Brook School ID: 585451092 Site Type: Daycare ctr	DAY1045372 DAYCARE

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	EDR ID Database
10 SE 1-2 mi 7143 Higher	Name: WOODMERE E.S. NCES ID: 340441003774 Address: 65 RALEIGH COURT EATONTOWN, NJ 07724 School ID: 52914 Telephone: 732-935-3343 Local Code: Urban Fringe of Large City School Type: Regular Elementary and Secondary Schools School Level: Primary County: MONMOUTH Lowest Grade: Kindergarten Highest Grade:06	340441003774 CCD
NA SSW 1-2 mi 7591 NA	Name: Earle Naval Weapons Station ID: 29317 State FIPS: 34 Feature: Navy DOD	US0029317 FED_LAND
11 NNW 1-2 mi 7864 Higher	Name: New Shrewsbury School ID: 882520 Site Type: school Latitude: 40.31500 Longitude: -74.09000	GNS0927653 GNIS_SCH
12 WNW 1-2 mi 7989 Higher	Name: Luther Memorial Christian Preschool ID: 585450915 Site Type: Daycare ctr	DAY1045374 DAYCARE
13 East 1-2 mi 8907 Lower	Name: MEADOWBROOK E.S. NCES ID: 340441003772 Address: 65 WYCKOFF ROAD EATONTOWN, NJ 07724 School ID: 52913 Telephone: 732-935-3337 Local Code: Urban Fringe of Large City School Type: Regular Elementary and Secondary Schools School Level: Primary County: MONMOUTH Lowest Grade: Kindergarten Highest Grade:06	340441003772 CCD

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation	Site	EDR ID Database
14 North 1-2 mi 8915 Higher	Name: MAHALA F. ATCHINSON E.S. NCES ID: 341620004112 Address: 961 SYCAMORE AVENUE EATONTOWN, NJ 07724 School ID: 53042 Telephone: 732-542-2500 Local Code: Urban Fringe of Large City School Type: Regular Elementary and Secondary Schools School Level: Primary County: MONMOUTH Lowest Grade: Kindergarten Highest Grade:02	341620004112 CCD
15 ENE 1-2 mi 9018 Lower	Name: Steelman School ID: 882575 Site Type: school Latitude: 40.30700 Longitude: -74.05000	GNS0930612 GNIS_SCH
16 North 1-2 mi 10244 Higher	Name: Tinton Falls Cooperative Nursery School ID: 585451093 Site Type: Daycare ctr	DAY1045366 DAYCARE

RECORDS SEARCHED/DATA CURRENCY TRACKING

CENSUS

Source: U.S. Census Bureau

Telephone: 301-457-4100

1990 U.S. Census data was used to estimate residential population following these EPA guidelines:

"Census data are presented by Census tract. If your circle covers only a portion of the tract, you should develop an estimate for that portion...Determine the population density per square mile (total population of the Census tract divided by the number of square miles in the tract) and apply that density figure to the number of square miles within your circle."

FED_LAND: Federal Lands

Source: USGS

Telephone: 703-648-5094

Federal lands data. Includes data from several Federal land management agencies, including Fish and Wildlife Service, Bureau of Land Management, National Park Service, and Forest Service. Includes National Parks, Forests, Monuments; Wildlife Sanctuaries, Preserves, Refuges; Federal Wilderness Areas.

Date of government version: 09/09/97.

HCFA: Provider of Services Listing

Source: The Health Care Financing Administration

Telephone: 410/786-3000

A listing of hospitals with Medicare provider number, produced by The Health Care Financing Administration (HCFA), a federal agency within the U.S. Department of Health and Human Services.

HCFA runs the Medicare and Medicaid programs.

Date of government version: 06/01/98.

CCD: Common Core of Data

Source: National Center for Education Statistics

555 New Jersey Avenue NW

Washington, DC 20208-5651

The Common Core of Data (CCD) is the National Center for Education Statistics' primary database on elementary and secondary public education in the United States. CCD is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Date of government version: 1995-96.

GNIS: Geographic Names Information System

Source: USGS

Telephone: 703-648-5094

The Geographic Names Information System (GNIS), developed by the USGS in cooperation with the U.S. Board on Geographic Names (BGN), contains information about almost 2 million physical and cultural geographic features in the United States. The GNIS is our Nation's official repository of domestic geographic names information.

Date of government version: 03/01/98.

PRV_SCH: Private Schools

EDR indicates the location of buildings and facilities - private schools - where individuals who are public receptors are likely to be located.

DAYCARE: Daycare Centers

EDR indicates the location of buildings and facilities - daycare centers - where individuals who are public receptors are likely to be located.

MEDCEN: Medical Centers

EDR indicates the location of buildings and facilities - medical centers - where individuals who are public receptors are likely to be located.

NURSING: Nursing Homes

EDR indicates the location of buildings and facilities - nursing homes - where individuals who are public receptors are likely to be located.

ARENA: Arenas

EDR indicates the location of buildings and facilities - arenas - where individuals who are public receptors are likely to be located.

PRISON: Prisons

EDR indicates the location of buildings and facilities - prisons - where individuals who are public receptors are likely to be located.

BOP: Bureau of Prisons Facilities

Source: Federal Bureau of Prisons

List of facilities operated by the Federal Bureau of Prisons.

Date of government version: 07/01/98.

APPENDIX K

Well Survey and Well Search Summary

Hitlist as of 08-27-2001

2916770 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SD1
3 306 MAIN STREET 07-30-1986 41.5 WR1
2916771 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SE1
306 MAIN STREET 07-30-1986 36.5 WR1
2916772 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SE6
306 MAIN STREET 07-30-1986 36.5 WR1
2916773 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SF3
306 MAIN STREET 07-30-1986 41.5 WR1
2916774 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SF1
306 MAIN STREET 07-30-1986 41.5 WR1
2916775 NJ DOT 29138 CRAG 15 0 M 8A9A 113 36 25 06-30-1986 401752 740552 01-11-1993 N ... SB2
306 MAIN STREET 07-30-1986 63 WR1
2916776 NJ DOT 29138 CRAG 15 0 M 8A9A 113 36 25 06-30-1986 401752 740552 01-11-1993 N ... SB9
306 MAIN STREET 07-30-1986 76.5 WR1
2916777 NJ DOT 2913854 CRAG 20 0 M 11 25 06-30-1986 401659 740512 01-11-1993 N ... R40
3L 306 MAIN STREET 07-30-1986 46.5 WR1
2916778 NJ DOT 2913854 CRAG 20 0 M 11 25 06-30-1986 401659 740512 01-11-1993 N ... R40
6 306 MAIN STREET 07-30-1986 41.5 WR1
2916779 NJ DOT 2913839 CRAG 20 0 M 30 93 11 25 06-30-1986 401726 740406 01-11-1993 N ... R401L
306 MAIN STREET 07-30-1986 60.4 WR1
2916780 NJ DOT 2913856 CRAG 20 0 M 1.2 115 36 25 06-30-1986 401659 740446 01-11-1993 N ... R45
5 306 MAIN STREET 07-30-1986 46.5 WR1
2916781 NJ DOT 2913856 CRAG 20 0 M 1.2 11E 36 25 06-30-1986 401659 740446 01-11-1993 N ... R45
8 306 MAIN STREET 07-30-1986 16.5 WR1
2916782 NJ DOT 2913856 CRAG 20 0 M 1.2 115 36 25 06-30-1986 401659 740446 01-11-1993 N ... SG2
306 MAIN STREET 07-30-1986 36.5 WR1
2916783 NJ DOT 2913856 CRAG 20 0 M 1.2 115 36 25 06-30-1986 401659 740446 01-11-1993 N ... SG9
306 MAIN STREET 07-30-1986 40.8 WR1
2916784 NJ DOT 2913856 CRAG 20 0 M 1.2 115 36 25 06-30-1986 401659 740446 01-11-1993 N ... SH2
306 MAIN STREET 07-30-1986 46.5 WR1
2916785 NJ DOT 2913856 CRAG 20 0 M 1.2 115 36 25 06-30-1986 401659 740446 01-11-1993 N ... R47
2 306 MAIN STREET 07-30-1986 11.5 WR1
2916786 NJ DOT 2913863 CRAG 15 0 M 3002 93 11 25 06-30-1986 401712 740406 01-11-1993 N ... R40
7 306 MAIN STREET 07-30-1986 31.5 WR1
2916787 NJ DOT 2913863 CRAG 15 0 M 3002 93 11 25 06-30-1986 401712 740406 01-11-1993 N ... R42
3 306 MAIN STREET 07-30-1986 46.5 WR1
2916788 NJ DOT 2913864 CRAG 20 0 M 3003 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... R42
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2916789 NJ DOT 2913864 CRAG 20 0 M 3003 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... R42
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2901154 NJ STATE HWY AUTH. 2913812 LAUM 70 30 D ... 45 25 06-17-1954 401800 740546 ...
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2903374 CAROTENUTO BROS. 2913818 TICE 50 10 D ... 46 25 08-15-1960 401733 740546 ...
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2903863 Redacted - Privacy Act Redacted - Privacy Act GREH 90 10 D ... 37 25 06-29-1962 401733 740546 ...
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2905076 Redacted - Privacy Act Redacted - Privacy Act TICE 100 15 D ... 36 25 05-20-1966 401733 740546 ...
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2916766 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SA1
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306 MAIN STREET 07-30-1986 51.5 ... WR1
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306 MAIN STREET 07-30-1986 50.3 ... WR1
2916769 NJ DOT 2913864 CRAG 20 0 M 3004 93 11 25 06-30-1986 401659 740432 01-11-1993 N ... SD9
306 MAIN STREET 07-30-1986 40.3 ... Page #1 ... WR1

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2917950 EATONTOWN TOWNSHIP 2913836 TIGE 13 10 W 43 55 11 25 02-10-1987 401739 740406 08-25-1987
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2917951 EATONTOWN TOWNSHIP 2913836 TIGE 13 10 W 43 55 11 25 02-10-1987 401739 740406 08-25-1987
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2917952 EATONTOWN TOWNSHIP 2913836 TIGE 13 10 W 43 55 11 25 02-10-1987 401739 740406 08-25-1987
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2918127 EATONTOWN, TOWNSHIP O 2913836 TIGE 13 20 W 43 55 11 25 03-17-1987 401739 740406 08-25-1987
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2918128 EATONTOWN, TOWNSHIP O 2913836 TIGE 13 20 W 43 55 11 25 03-17-1987 401739 740406 08-25-1987
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2918129 EATONTOWN, TOWNSHIP O 2913836 TIGE 13 20 W 43 55 11 25 03-17-1987 401739 740406 08-25-1987
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2918130 EATONTOWN, TOWNSHIP O 2913836 TIGE 13 20 W 43 55 11 25 03-17-1987 401739 740406 08-25-1987
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2918131 EATONTOWN, TOWNSHIP O 2913836 TIGE 13 20 W 43 55 11 25 03-17-1987 401739 740406 08-25-1987
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2918132 EATONTOWN, TOWNSHIP O 2913836 TIGE 13 20 W 43 55 11 25 03-17-1987 401739 740406 08-25-1987
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2918579 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918580 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918581 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918582 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918583 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918584 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918585 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918586 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918587 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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2918588 EATONTOWN, TWP.OF 2913836 TIGE 13 140 W 43 55 11 25 05-18-1987 401746 740413 10-05-1987
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1988 WR1
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2921634 Redacted - Privacy Act Redacted - Privacy Act ENDR 200 15 G 13 97 11 25 10-19-1988 401733 740346 01-20-1989 ...
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2922685 STRAVOLA REALTY 2913824 GEOR 30 0 M 7.01 115 36 25 05-01-1989 401746 740519 05-10-1989
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2922686 STRAVOLA REALTY 2913824 GEOR 30 0 M 7.01 115 36 25 05-01-1989 401746 740519 05-10-1989
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27-1990 MW5 100 CRESCENT COURT 04-10-1990 12 ... Redacted - Privacy Act M1328 WR1
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27-1990 MW6 100 CRESCENT COURT 04-12-1990 12 ... Redacted - Privacy Act M1328 WR1
2923922 Redacted - Privacy Act ARIS CORP. 2913852 KAVL 10 0 B 21.02 114.01 36 25 12-11-1989 401720 740506 08-
03-1990 SB-A 100 CRESCENT COURT 04-11-1990 Redacted - Privacy Act M1328 WR1
2923923 Redacted - Privacy Act ARIS CORP. 2913852 KAVL 10 0 B 21.02 114.01 36 25 12-11-1989 401720 740506 08-
03-1990 SB-B 100 CRESCENT COURT 04-12-1990 Redacted - Privacy Act M1328 WR1
2923924 Redacted - Privacy Act ARIS CORP. 2913852 KAVL 10 0 B 21.02 114.01 36 25 12-11-1989 401720 740506 08-
03-1990 SB-C 100 CRESCENT COURT 04-11-1990 Redacted - Privacy Act M1328 WR1
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03-1990 SB-D 100 CRESCENT COURT 04-11-1990 Redacted - Privacy Act M1328 WR1

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2923929	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
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2923930	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-I	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923931	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-J	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923932	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
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2923933	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
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2923934	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-M	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923935	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-N	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923936	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-O	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923937	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-P	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923938	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
03-1990	SB-Q	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923939	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
27-1990	SB-U	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923940	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
27-1990	SB-R	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923941	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989	401720	740453	08-
27-1990	SB-S	100 CRESCENT COURT	04-12-1990								Redacted - Privacy Act	M1328		WR1
2923942	ARIS CORP.	2913853	KAVL	10	0	B	21.02	114.01	36	25	12-11-1989			

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 MCDC6 SELFM-EH-E BUILDING 167 07-20-1990 Redacted - Privacy Act B0082 WR1

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 MCDC9 SELFM-EH-E BUILDING 167 10-12-1990 Redacted - Privacy Act B0082 WR1

2924899 FORT MONMOUTH 2913823 PARE 30 0 B N/A N/A 11 25 06-12-1990 401800 740453 12-03-1990 ..
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2926724 WHIG TOWER CORPORATI 2913859 PICK 60 10 D 5.02 115 36 25 08-08-1991 401653 740453 10-2
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2927443 MONMOUTH CO., NEW JE 2913818 KEYT 25 0 M 21.01 97 36 25 01-21-1992 401733 740546 04-22
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2927444 MONMOUTH CO., NEW JE 2913818 KEYT 25 0 M 21.01 97 36 25 01-21-1992 401733 740546 04-22
 -1992 MW2 143A WAYSIDE ROAD 01-22-1992 17 ... Redacted - Privacy Act J1217 WR1

2927453 MONMOUTH COUNTY OF 2913818 KEYT 25 0 M 21.01 97 36 25 01-23-1992 401733 740546 04-22-1
 992 MW3 143A WAYSIDE ROAD 01-23-1992 17.5 ... Redacted - Privacy Act J1217 WR1

2927643 DONATO GROUP-MERIDAN 2913598 EMPI 20 0 Z 6.07 135 11 25 03-05-1992 401813 740426 03-17
 -1992 P-1 3 INDUSTRIAL WAY WEST 03-06-1992 24 0 Redacted - Privacy Act J1577 WR1

2927644 DONATO GROUP-MERIDAN 2913598 EMPI 20 0 Z 6.07 135 11 25 03-05-1992 401813 740426 03-17
 -1992 P-2 3 INDUSTRIAL WAY WEST 03-07-1992 18 Redacted - Privacy Act J1577 WR1

2927645 DONATO GROUP-MERIDAN 2913598 EMPI 20 0 Z 6.07 135 11 25 03-05-1992 401813 740426 03-17
 -1992 P-3 3 INDUSTRIAL WAY WEST 03-06-1992 17 0 Redacted - Privacy Act J1577 WR1

2927756 COSTCO WHOLESALE COR 2913829 JERB 20 0 Z 7.01 115 36 25 03-31-1992 401733 740453 04-14
 -1992 P1 HOPE ROAD 04-06-1992 14 ... Redacted - Privacy Act J1474 WR1

2927757 COSTCO WHOLESALE COR 2913829 JERB 20 0 Z 7.01 115 36 25 03-31-1992 401733 740453 04-14
 -1992 P2 HOPE ROAD 04-06-1992 15 ... Redacted - Privacy Act J1474 WR1

2927758 COSTCO WHOLESALE COR 2913829 JERB 20 0 Z 7.01 115 36 25 03-31-1992 401733 740453 04-14
 -1992 P3 HOPE ROAD 04-06-1992 14 ... Redacted - Privacy Act J1474 WR1

2928781 MONMOUTH COUNTY OF 2913842 KEYT 25 0 M 21.01 97 36 25 09-22-1992 401720 740546 03-24-1
 993 MW1 6 PINE BROOK ROAD 03-10-1993 17 ... Redacted - Privacy Act J1603 WR1

Hitlist as of 08-27-2001

2928782 MONMOUTH COUNTY OF 2913842 KEYT 25 0 M 21.01 97 36 25 09-22-1992 401720 740546 03-24-1
 993 MW2 PINE BROOK ROAD 04-30-1993 17 ... Redacted - Privacy Act J1603 WR1
 2929189 WHTG TOWER CORPORATI 2913859 PICK 78 0 Y 5.02 115 36 25 12-30-1992 401653 740453 02-09
 -1993 ... Redacted - Privacy Act 1129 HOPE ROAD 02-03-1993 87 ... Redacted - Privacy Act M1041 WR1
 2929421 ... Redacted - Privacy Act ANDE 25 0 M 21.02 114.01 36 25 03-23-1993 401720 740506 05-17-1993 ...
 ... MW1 46 PARK ROAD 04-08-1993 13 .. Redacted - Privacy Act WR1
 2929607 MONMOUTH COUNTY 2913842 KEYT 25 0 M 21.01 97 36 25 04-29-1993 401720 740546 05-24-1993
 MW3 PINE BROOK ROAD 05-03-1993 17.5 .. Redacted - Privacy Act 1603 WR1
 2929623 MONMOUTH COUNTY 2913842 KEYT 25 0 M 21.01 97 36 25 05-04-1993 401720 740546 05-24-1993
 MW2A 6 PINE BROOK ROAD 05-04-1993 14 0 Redacted - Privacy Act 603 WR1
 2929742 US ARMY - FT. MONMOU 2913827 DRCT 30 0 M N/A N/A 38 25 06-03-1993 401733 740519 01-10-
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 2929743 US ARMY - FT. MONMOU 2913827 DRCT 30 0 M N/A N/A 38 25 06-03-1993 401733 740519 01-10-
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 2929744 US ARMY - FT. MONMOU 2913827 DRCT 30 0 M N/A N/A 38 25 06-03-1993 401733 740519 01-10-
 1994 3 BLDG 2500 06-10-1993 25 0 Redacted - Privacy Act JR. M1051 WR1
 2929745 US ARMY - FT. MONMOU 2913827 DRCT 30 0 M N/A N/A 38 25 06-03-1993 401733 740519 01-10-
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 93 MW1 556 INDUSTRIAL WAY EAST 06-14-1993 10 ... Redacted - Privacy Act J1145 WR1
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 93 MW2 556 INDUSTRIAL WAY EAST 06-14-1993 10 ... Redacted - Privacy Act J1145 WR1
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 93 MW3 556 INDUSTRIAL WAY EAST 06-14-1993 10 ... Redacted - Privacy Act J1145 WR1
 2930115 ALLIED SIGNAL INC. 2913912 AQU1 45 0 M 26 64 11 25 08-19-1993 401800 740346 09-30-1993
 MW36 118 HIGHWAY 35 08-25-1993 12.2 ... Redacted - Privacy Act J1579 WR1
 2930116 ALLIED SIGNAL INC. 2913912 AQU1 45 0 M 26 64 11 25 08-19-1993 401800 740346 09-30-1993
 MW37 118 HIGHWAY 35 08-25-1993 26 ... Redacted - Privacy Act J1579 WR1
 2930117 ALLIED SIGNAL INC. 2913912 AQU1 45 0 M 26 64 11 25 08-19-1993 401800 740346 09-30-1993
 MW38 118 HIGHWAY 35 08-26-1993 37.5 .. Redacted - Privacy Act J1579 WR1
 2930118 ALLIED SIGNAL INC. 2913912 AQU1 45 0 M 13 64 11 25 08-19-1993 401800 740346 09-30-1993
 MW33 118 HIGHWAY 35 08-30-1993 12 .. Redacted - Privacy Act J1579 WR1
 2930119 ALLIED SIGNAL INC. 2913912 AQU1 45 0 M 13 64 11 25 08-19-1993 401800 740346 09-30-1993
 MW34 118 HIGHWAY 35 08-30-1993 22 ... Redacted - Privacy Act J1579 WR1
 2930120 ALLIED SIGNAL INC. 2913912 AQU1 45 0 M 13 64 11 25 08-19-1993 401800 740346 09-30-1993
 MW35 118 HIGHWAY 35 08-30-1993 32.5 ... Redacted - Privacy Act J1579 WR1
 2930480 EATONTOWN BOARD OF E 2913911 UNIT 20 0 M 43-44 55 11 25 11-18-1993 401800 740400 01-06
 -1994 1 7 GRANT AVENUE 11-24-1993 15 0 Redacted - Privacy Act J1521 WR1
 2930494 ALLIED SIGNAL INC. 2913912 REXR 35 0 M 13 64 11 25 11-24-1993 401800 740346 12-14-1993
 39 COLUMBIAN ROAD 11-30-1993 18 0 Redacted - Privacy Act J1129 WR1
 2930495 ALLIED SIGNAL INC. 2913912 REXR 35 0 M 13 64 11 25 11-24-1993 401800 740346 12-14-1993
 40 COLUMBIAN ROAD 11-29-1993 30 0 Redacted - Privacy Act J1129 WR1
 2930514 STANDARD ROOFING INC 2913853 RECO 20 0 M 29 11401 36 25 12-03-1993 401720 740453 01-24
 -1994 1 100 PARK ROAD 12-13-1993 12 0 Redacted - Privacy Act J1549 WR1
 2930958 U S ARMY FORT MONMOU 2913822 TYRE 15 0 M N/A N/A 38 25 04-05-1994 401800 740506 08-11-
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 2930959 U S ARMY FORT MONMOU 2913822 TYRE 15 0 M N/A N/A 38 25 04-05-1994 401800 740506 08-11-
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 2930960 U S ARMY FORT MONMOU 2913822 TYRE 15 0 M N/A N/A 38 25 04-05-1994 401800 740506 08-11-
 1994 MW-3 ... 07-06-1994 15 0 Redacted - Privacy Act J1421 WR1
 2930969 U S ARMY FORT MONMOU 2913816 TYRE 15 0 M N/A N/A 38 25 04-05-1994 401746 740533 07-27-
 1994 07-19-1994 20 0 Redacted - Privacy Act J1421 WR1
 2931238 MIDMONMOUTH REALTY A 2913828 SALO 15 0 Z 13.02 114 36 25 05-11-1994 401733 740506 06-3
 0-1994 P1 1 COLDSTREAM WAY 05-19-1994 15 Redacted - Privacy Act J1330 WR1
 2931239 MIDMONMOUTH REALTY A 2913828 SALO 15 0 M 13.02 114 36 25 05-11-1994 401733 740506 06-3
 0-1994 MW-4 1 COLDSTREAM WAY 05-19-1994 11 0 Redacted - Privacy Act J1330 WR1

Hitlist as of 08-27-2001

2931240 MIDMONMOUTH REALTY A 2913828 SALO 15 0 M 13.02 114 36 25 05-11-1994 401733 740506 06-3
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2931561 EATONTOWN BOROUGH OF 2913599 GARS 20 0 M 2 54 11 25 07-05-1994 401813 740413 08-30-199
4 ... 1 131 LEWIS ST 08-16-1994 14 0 Redacted - Privacy Act J1610 ... WR1
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4 ... 2 131 LEWIS ST 08-16-1994 13 0 Redacted - Privacy Act J1610 ... WR1
2931563 EATONTOWN BOROUGH OF 2913599 GARS 20 0 M 32 12 11 25 07-05-1994 401813 740413 08-30-19
94 ... 1 131 LEWIS ST 08-15-1994 13 0 Redacted - Privacy Act J1610 ... WR1
2932158 FORT MONMOUTH GOLF C 2913597 PICK 60 15 G NA NA 11 25 09-27-1994 401813 740440 11-04-1
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2932159 FORT MONMOUTH GOLF C 2913597 PICK 60 15 G NA NA 11 25 09-27-1994 401813 740440 11-04-1
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2932160 FORT MONMOUTH GOLF C 2913597 PICK 60 15 G NA NA 11 25 09-27-1994 401813 740440 11-04-1
994 ... TINTON AVENUE 10-19-1994 50 0 Redacted - Privacy Act M1041 ... WR1
2932161 FORT MONMOUTH GOLF C 2913597 PICK 60 15 G NA NA 11 25 09-27-1994 401813 740440 11-04-1
994 ... TINTON AVENUE 10-20-1994 45 0 Redacted - Privacy Act M1041 ... WR1
2932162 FORT MONMOUTH GOLF C 2913597 PICK 60 15 G NA NA 11 25 09-27-1994 401813 740440 11-04-1
994 ... TINTON AVENUE 10-27-1994 48 0 Redacted - Privacy Act M1041 ... WR1
2932163 FORT MONMOUTH GOLF C 2913597 PICK 60 15 G NA NA 11 25 09-27-1994 401813 740440 11-04-1
994 ... TINTON AVENUE 10-20-1994 45 0 Redacted - Privacy Act M1041 ... WR1
2932590 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-26 BLDF 167 12-19-1994 15 0 Redacted - Privacy Act J1455 ... WR1
2932591 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-27 BLDF 167 12-19-1994 15 0 Redacted - Privacy Act J1455 ... WR1
2932592 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-28 BLDF 167 12-19-1994 15 0 Redacted - Privacy Act J1624 ... WR1
2932593 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-29 BLDF 167 12-19-1994 15 0 Redacted - Privacy Act J1624 ... WR1
2932594 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-30 BLDF 167 12-16-1994 16 0 Redacted - Privacy Act J1455 ... WR1
2932595 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-31 BLDF 167 12-16-1994 15 0 Redacted - Privacy Act J1624 ... WR1
2932596 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-32 BLDF 167 12-16-1994 15 0 Redacted - Privacy Act J1624 ... WR1
2932597 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-33 BLDF 167 12-15-1994 15 0 Redacted - Privacy Act 1624 ... WR1
2932598 U. S. ARMY (DIRECTOR 2913824 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401746 7405
19 04-20-1995 ... MW-08 BLDF 167 01-10-1995 15 0 Redacted - Privacy Act J1624 ... WR1
2932599 U. S. ARMY (DIRECTOR 2913831 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7404
40 04-20-1995 ... MW-34 BLDF 167 01-03-1995 15 0 Redacted - Privacy Act J1455 ... WR1
2932600 U. S. ARMY (DIRECTOR 2913831 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7404
40 04-20-1995 ... MW-35 BLDF 167 01-03-1995 15 0 Redacted - Privacy Act J1455 ... WR1
2932601 U. S. ARMY (DIRECTOR 2913831 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7404
40 04-20-1995 ... MW-36 BLDF 167 01-04-1995 15 0 Redacted - Privacy Act J1455 ... WR1
2932602 U. S. ARMY (DIRECTOR 2913831 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7404
40 04-20-1995 ... MW-06 BLDF 167 01-10-1995 14 0 Redacted - Privacy Act 1455 ... WR1
2932603 U. S. ARMY (DIRECTOR 2913831 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7404
0 04-20-1995 ... MW-09 BLDF 167 01-10-1995 15 0 Redacted - Privacy Act J1624 ... WR1
2932604 U. S. ARMY (DIRECTOR 2913821 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7405
04-20-1995 ... MW-07 BLDF 167 01-10-1995 15 0 Redacted - Privacy Act 1455 ... WR1
2932605 U. S. ARMY (DIRECTOR 2913821 ANDE 25 0 M 1,1,8.01 1,53,54 11 25 11-29-1994 401800 7405
04-20-1995 ... MW-10B BLDF 167 01-10-1995 15 0 Redacted - Privacy Act J1624 ... WR1
1894 MONMOUTH CO. BLDGS. 2913843 PLAN 20 0 M 21.01 97 36 25 03-01-1995 401720 740533 04-17-
... MW-4 PINE BROOK ROADS 03-29-1995 17 0 Redacted - Privacy Act M0775 ... WR1
1995 MONMOUTH CO. BLDGS. 2913843 PLAN 20 0 M 21.01 97 36 25 03-01-1995 401720 740533 04-17-
... MW-5 PINE BROOK ROADS 03-29-1995 17 30 Redacted - Privacy Act M0775 ... WR1

Hitlist as of 08-27-2001

2932896 MONMOUTH CO. BLDGS. 2913843 PLAN 20 0 V 21.01 97 36 25 03-01-1995 401720 740533 05-11-1995 ... SVE-1 PINE BROOK ROAD 03-30-1995 10 0 ASSANTE, MICHAEL L. M0775 ... WR1

2932897 MONMOUTH CO. BLDGS. 2913843 PLAN 20 0 J 21.01 97 36 25 03-01-1995 401720 740533 04-27-1995 ... WR1

2933763 US ARMY - FORT MONMO 2913597 PARE 20 0 M N/A N/A 38 25 07-19-1995 401813 740440 10-02-1995 ... 2018 BLDG 2018 09-12-1995 16 0 Redacted - Privacy Act J1540 ... WR1

2934753 MID MONMOUTH REALTY 2913829 PARE 15 0 M 13B,1201 114 36 25 01-10-1996 401733 740453 02-14-1996 ... MW-1A 1 COLDSTREAM WAY & PINE B 02-10-1996 10.5 0 Redacted - Privacy Act J1540 ... WR1

2934754 MID MONMOUTH REALTY 2913829 PARE 15 0 M 13B,1201 114 36 25 01-10-1996 401733 740453 02-14-1996 ... MW6 1 COLDSTREAM WAY & PINE B 02-10-1996 11 0 Redacted - Privacy Act J1540 ... WR1

2934755 MID MONMOUTH REALTY 2913829 PARE 15 0 M 13B,1201 114 36 25 01-10-1996 401733 740453 02-14-1996 ... MW 7 1 COLDSTREAM WAY & PINE B 02-10-1996 9.5 0 Redacted - Privacy Act J1540 ... WR1

2935236 Redacted - Privacy Act Redacted - Privacy Act PICK 100 15 G 1 93.7 11 25 04-23-1996 401720 740413 05-28-1996 ... 22 SHERWOOD DR. 05-06-1996 119 12 Redacted - Privacy Act J13762 ... WR1

2935462 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.02 55 36 25 05-29-1996 401813 740533 10-09-1996 ... POND VIEW DR. 08-22-1996 181 20 Redacted - Privacy Act J13762 ... WR1

2936178 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.10 55 36 25 10-31-1996 401813 740533 03-26-1997 ... POND VIEW DR. 01-22-1997 182 0 Redacted - Privacy Act J13762 ... WR1

2936179 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.09 55 36 25 10-31-1996 401813 740533 03-17-1997 ... POND VIEW DR. 01-15-1997 188 20 Redacted - Privacy Act J13762 ... WR1

2936202 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.03 55 36 25 11-07-1996 401813 740533 06-12-1997 ... POND VIEW DR 05-01-1997 182 20 Redacted - Privacy Act J13762 ... WR1

2936204 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.08 55 36 25 11-07-1996 401813 740533 06-17-1997 ... POND VIEW DR 04-07-1997 181 20 Redacted - Privacy Act J13762 ... WR1

2936284 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.01 55 36 25 11-25-1996 401813 740533 05-20-1997 ... POND VIEW DR 03-20-1997 182 20 Redacted - Privacy Act J13762 ... WR1

2936563 MONMOUTH CTY DEPT OF 2913843 TABA 10 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... PINE BROOK RD 03-03-1997 11 0 Redacted - Privacy Act JR M1289 ... WR1

2936564 MONMOUTH CTY DEPT OF 2913843 TABA 6 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... VP-1 PINE BROOK RD 02-27-1997 4 0 Redacted - Privacy Act M1066 ... WR1

2936565 MONMOUTH CTY DEPT OF 2913843 TABA 6 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... VP-2 PINE BROOK RD 02-27-1997 5 0 Redacted - Privacy Act M1066 ... WR1

2936566 MONMOUTH CTY DEPT OF 2913843 TABA 6 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... VP-3 PINE BROOK RD 02-27-1997 5 0 Redacted - Privacy Act M1066 ... WR1

2936567 MONMOUTH CTY DEPT OF 2913843 TABA 6 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... VP-4 PINE BROOK RD 02-27-1997 5 0 Redacted - Privacy Act M1066 ... WR1

2936568 MONMOUTH CTY DEPT OF 2913843 TABA 35 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... AS-2 PINE BROOK RD 02-28-1997 30 0 Redacted - Privacy Act M1066 ... WR1

2936569 MONMOUTH CTY DEPT OF 2913843 TABA 35 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... AS-3 PINE BROOK RD 02-28-1997 28 0 Redacted - Privacy Act M1066 ... WR1

2936570 MONMOUTH CTY DEPT OF 2913843 TABA 35 0 V 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... AS-4 PINE BROOK RD 03-03-1997 28 0 Redacted - Privacy Act M1066 ... WR1

2936571 MONMOUTH CTY DEPT OF 2913843 TABA 20 0 M 21.01 97 36 25 02-05-1997 401720 740533 03-11-1997 ... MW-6 PINE BROOK RD 02-27-1997 15 0 Redacted - Privacy Act M1066 ... WR1

2936653 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.07 55 36 25 02-28-1997 401813 740533 10-06-1997 ... POND VIEW DRIVE 08-19-1997 180 20 Redacted - Privacy Act M13762 ... WR1

2936654 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.04 55 36 25 02-28-1997 401813 740533 06-27-1997 ... POND VIEW DRIVE 05-23-1997 181 20 Redacted - Privacy Act J13762 ... WR1

2936658 MATZEL & MUMFORD @ W 2913579 PICK 180 15 D 1.05 55 36 25 03-04-1997 401813 740533 07-24-1997 ... POND VIEW DR 06-18-1997 165 20 Redacted - Privacy Act J13762 ... WR1

2936753 LAMONT'S CORP 2913852 TOTA 10 0 M 31.02 114.01 36 25 03-31-1997 401720 740506 04-21-1997 ... MW-7R 46 PARK RD 04-08-1997 8 0 Redacted - Privacy Act J. M1328 ... WR1

2936968 Redacted - Privacy Act Redacted - Privacy Act PUTM 100 20 G 7 93.8 11 25 05-20-1997 401720 740426 08-06-1997 ... 1 1 SHERWOOD DRIVE 07-18-1997 80 20 Redacted - Privacy Act J1054 ... WR1

Hitlist as of 08-27-2001

Redacted - Privacy Act
2936969 1 PUTM 100 20 G 6 93.8 11 25 05-20-1997 401720 740426 08-06-1997
... 1 5 SHERWOOD DRIVE 07-26-1997 75 20 Redacted - Privacy Act J1054 ... WR1
2937036 MONMOUTH CO. DEPT. O 2913843 TABA 10 0 V 21.01 97 36 25 06-04-1997 401720 740533 06-23
-1997 ... SVE-3 PINE BROOK RD. 06-20-1997 7 0 Redacted - Privacy Act J1466 ... WR1
2937037 MONMOUTH CO. DEPT. O 2913843 TABA 35 0 V 21.01 97 36 25 06-04-1997 401720 740533 06-23
-1997 ... PINE BROOK RD. 06-20-1997 23 0 Redacted - Privacy Act J1466 ... WR1
2937899 DIRACTORATE OF PUBLI 2913822 HPDR 50 0 B N/A N/A 38 25 11-20-1997 401800 740506 12-17-
1997 ... B-1 BLDG. 167 12-08-1997 47 0 Redacted - Privacy Act J1053 ... WR1
2938654 MONMOUTH REG. HIGH S 2913584 PICK 180 15 U 1.11 55 36 25 05-15-1998 401826 740519 ...
... ONE NORMAN J FIELD WAY ... WR1
2938660 Redacted - Privacy Act Redacted - Privacy Act TIGE 100 20 G 26 93.6 11 25 05-15-1998 401720 740426 ...
... 145 NOTTINGHAM DRIVE ... WR1
2939028 Redacted - Privacy Act Redacted - Privacy Act PICK 180 15 1 7 54 36 25 07-30-1998 401813 740519 ...
... 521 TINTON AVE. ... WR1

Tinton Falls 1 MISE

29.13.815

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
Division of Water Policy & Supply
WELL RECORD

Permit No. **29-151**
Application No. _____
County **29.13.815**

1. OWNER **Redacted - Privacy Act** ADDRESS **Redacted - Privacy Act**

Owner's Well No. 1SURFACE ELEVATION set 90 65 Feet

(Above mean sea level)

2. LOCATION between Tinton Falls & Pine Brook, in New Brunswick3. DATE COMPLETED July 15 1951 DRILLER Baltch & Co.4. DIAMETER: Top 4 Inches Bottom 4 Inches TOTAL DEPTH 68' 6" Feet5. CASING: Type standard black steel Diameter 4 Inches Length 49' 6" Feet6. SCREEN: Type None Size of Opening _____ Diameter _____ Inches Length _____ FeetRange in Depth { Top _____ Feet Bottom _____ Feet Geologic Formation Tinton Rock

Tail piece: Diameter _____ Inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface

Water rises to _____ Feet above surface

8. RECORD OF TEST: Date July 15 1951 Yield 10 gal Gallons per minuteStatic water level before pumping 20 ft Feet below surfacePumping level 25 feet below surface after 4 hours pumpingDrawdown 5 Feet Specific Capacity 2 Gals. per min. per ft. of drawdownHow Pumped deep well plunger pump How measured 5 gal pail

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type Shallow well jet pump Capacity 5 Gallons per minuteHow Driven electric Horse Power 1/4 R.P.M. 3500Depth of pump in well 30 Feet Depth of foot piece in well _____ Feet10. USED FOR domestic AMOUNT { Average 2 Gallons DailyMaximum 10 Gallons Daily11. QUALITY OF WATER P.H. 7.0 but very Sample: Yes _____ No _____Taste yes Odor _____ Color _____ Temperature _____ °F

12. LOG _____ Are samples available? _____

(Give details on back of sheet or on separate sheet)

13. SOURCE OF DATA

14. DATA OBTAINED BY Baltch & Co. DATE July 15 1951

(Note: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

0-10 fill clay & gravel
 10-18 yellow sand ← start of Vincentown
 18-22 " " & water
 22-36 black clay & silt
 36-43 glauconite, grey sand & water
 43-51 much green, glauconitic sand & marl
 51-53 very green marl & lots of glauconite
 53-67 black clay, glauconite & fine sand
 67-68'6" sand turning green

2 P
 Tot
 Tbt
 Tinton fms

**DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
Division of Water Policy & Supply
WELL RECORD**

29.13.8.5.4 4
Permit No. 29-1121
Application No. _____
County Monmouth
29.13.854

1. OWNER N.J. Hwy Auth ADDRESS 1035 Parkway Ave. Trenton
Owner's Well No. _____ SURFACE ELEVATION _____ Feet
(Above mean sea level) #3B
2. LOCATION Tail Area 5 (Shrewsbury) #3B, Garden St. Parkway
3. DATE COMPLETED 8-4-54 DRILLER C. W. Lawman, Bethpage, L.I.
4. DIAMETER: Top 4 Inches Bottom 4 Inches TOTAL DEPTH 89 Feet
5. CASING: Type Wrought Steel Diameter 4 Inches Length 44'5" Feet
Size of Top 8'-18 slot
6. SCREEN: Type Everdur Opening 8'-10-20" Diameter 4 Inches Length 19'2 1/4" Feet
Range in Depth { Top 46 Feet Geologic Formation Vincennes
Bottom 65 Feet
Tail piece. Diameter _____ Inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 8-4-54 Yield 22.2 Gallons per minute
Static water level before pumping 19'3" Feet below surface
Pumping level 31' feet below surface after 12 hours pumping
Drawdown 11'8 1/2" Feet Specific Capacity 1.9 Gals. per min. per ft. of drawdown
How Pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type HT Capacity 10 Gallons per minute
How Driven Elec Horse Power 3/4 R.P.M. 3450
Depth of pump in well 35 Feet Depth of Foot piece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____
10. USED FOR General
AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No. _____
Taste _____ Odor _____ Color _____ Temperature 51.8 °F
12. LOG Attached Are samples available? Yes
(Give details on back of sheet or on separate sheet)
13. SOURCE OF DATA Files
14. DATA OBTAINED BY Alu. Kreitman DATE 2-15-55

(Note: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

SUPPLY WELL LOG

Well 4-3-6

29.13.854

29-1121

WPCC No.

Job 41 GARDEN STATE PARKWAY

Address TOLL AREA #3B, SUKESBURY

Date Started 7-21-54

Completed 7-28-54

Driller APPELGADE

Diameter 4" In. 29.13.854 2901121

Measured from Grade ☒ Yes ☐ No

Depth 65' Ft. 0" In.

Above Ft. In. Below Ft. In.

Static Level 19' Ft. 3" In.

Elevation 68.89' Ft.

SKETCH OF LOCATION

STRATUM THICKNESS DEPTH TEMPERATURE SAND WATER

FILL

20' 20'

GREENISH YELLOW SAND WITH CLAY

6' 26'

FINE & SHARP GREENISH YELLOW SAND WITH CLAY

& LITTLE MILK

7' 37'

FINE GREEN GLAUCONITIC MILK & SAND

WITH CLAY & SILT

3' 40'

FINE YELLOWISH GREEN SAND WITH GLAUCONITE

4' 44'

CLAY, SILT & LITTLE MILK

FINE GREEN SAND & CLAY, SILT WITH MILK

21' 65'

FINE GREEN SAND, DRYER, MORE CLAY, SILT

& MILK

10' 75'

FINE GLAUCONITIC SAND WITH CLAY, SILT & MILK

6' 81'

Vertical



ESTABLISHED 1880



United States Testing Company, Inc.

HOBOKEN, N. J.
TELEPHONE HOBOKEN 3-3166

29-13-854

29-1121

NUMBER
76643-A
(Refer to this number)

REPORT

29-13-854
2901121

August 23, 1954.

Client:

New Jersey Highway Authority
c/o Miller-Warden Associates
Box 19-B - R.D. #1
Eatontown, New Jersey.

Toll Area 3B

Subject:

Well Water Survey -- Sample taken from Shrewsbury by
United States Testing Company, Inc. Representative
on August 4, 1954.

PURPOSE OF TEST:

The object of the test was to analyze the water for conformance to Article 2.3.10 Water Quality Guarantee of the Garden State Parkway supplementary specifications Contract No. 148 - Sections 7, 8, 10 and 11.

METHOD OF TEST:

The tests were conducted in accordance with the Standard Methods for the Examination of Water and Sewage, 9th Edition, American Public Health Association.

RESULTS OF TEST:

	<u>Results</u>	<u>Requirements</u>
<u>Bacteriological</u>	Negative	No evidence of presence of the Coliform group.
	<u>Results</u>	<u>Requirements</u>
<u>Physical</u>		
Turbidity	25 ppm	Less than 5 ppm (silica scale)
	<u>Results</u>	<u>Requirements</u>
<u>Chemical Constituents</u>		
Arsenic	Not found	Less than 0.05 ppm
Selenium	Not found	Less than 0.05 ppm
Hexavalent Chromium	Not found	Less than 0.05 ppm
Zinc	Less than 1 ppm	Less than 15 ppm
Iron) combined	0.47 ppm	
Manganese	Not found	Less than 3.0 ppm
Chloride (as Cl)	14.2	Less than 250 ppm

Page of 2

Supervised by

C. K. Crocker
C. K. Crocker
Chemical Department.

United States Testing Company, Inc.

BY

M. J. MaziarSKI

ALL TESTS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED, AND ARE NOT TO BE LOANED, COPIED, OR REPRODUCED IN ANY MANNER, OR THE USE OF THE NAME OF UNITED STATES TESTING COMPANY, INC. MUST BE MADE OUR PRIOR WRITTEN APPROVAL. THESE TESTS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL SAMPLES.

C 11491 7-12-55

WELREC 107 1175

United States Testing Company, Inc.

HOBOKEN, N. J.
TELEPHONE: HOBOKEN 3-318629.13.854
2901121NUMBER
76643-A

(Refer to this number)

REPORT

August 23, 1954.

Client:

New Jersey Highway Authority
c/o Miller-Warden Associates
Box 19-B - R.D. #1
Eatontown, New Jersey.

Subject:

Well Water Survey -- Sample taken from Shrewsbury by
United States Testing Company, Inc., representative
on August 4, 1954.Chemical Constituents (Cont'd)

	<u>Results</u>	<u>Requirements</u>
Sulphates (as SO_4)	22.0 ppm	Less than 250 ppm
Phenolic Compounds (as Phenol)	Not found	Less than 0.001 ppm
Total Solids	133 ppm	Less than 1000 ppm
Magnesium	1.0 ppm	Less than 125 ppm
Nitrates (as NO_3)	0.1 ppm	Less than 50 ppm

CONCLUSION:

The water sample, identified as above does not meet the turbidity requirements of the Garden State Parkway Contract No. 148 - Section 7, 8, 10 and 11.

CONTINUED - PAGE #2

OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED, AND THEIR COMMUNICATION TO ANY OTHERS, OR THE USE OF THE NAME OF UNITED STATES TESTING COMPANY, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS.

C 11291-6.55

C. W. LAUMAN & CO., INC.

WATER ANALYSIS

BETHPAGE, L. I.
Hicksville 3-2305

29.13.854
2901121

29-13.854
29-1121
No. 531
50 CHURCH ST., N. Y. C.
Digby 9-0318
Date 8/25/54

Name Garden State Parkway

Address Toll Area 3B - Shrewsbury

Source of Sample 12 hr test

Collection Date

Point of Collection

1. 8/4/54

pump discharge

2. _____

3. _____

4. _____

	1	2	3	4
Hydrogen Ion Conc. (pH)	7.3			
Free Carbon Dioxide, as CO ₂ ppm	7.8			
Alkalinity "P", as CaCO ₃ ppm	0			
Total Alkalinity, as CaCO ₃ ppm	78.0			
Hardness, total, as CaCO ₃ ppm	92.			
Chlorides, as Cl ppm	6			
Iron, as Fe ppm	1.2			
Nitrates, as N ppm	0			
Turbidity, as SiO ₂ ppm	7.2			
Hexavalent Chromium ppm	0.0			

Remarks: Corrosion index 19.9 -- non corrosive - low CO₂ and high tot. alk.

Iron high - Treatment recommended.

Analyzed by HRB

C. W. LAUMAN & CO., INC.

Date 8/25/54

by

BDA

29.13.8.12. []

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
Division of Water Policy & Supply
WELL RECORD

Permit No. 29-1154
Application No. _____
County Monmouth
29.13.812

1. OWNER N.J. Hwy Auth ADDRESS 1035 Pkway Ave, Trenton
Owner's Well No. _____ SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Temp. Service Area, Garden St. Pkway & Tinton Rd, N.J.
3. DATE COMPLETED 8-11-54 DRILLER CLW Lawman, Bethpage, L.I.
4. DIAMETER: Top 6 Inches Bottom 4 Inches TOTAL DEPTH 184'6" Feet
5. CASING: Type Wrought Steel Diameter 6 Inches Length 170 Feet
6. SCREEN: Type Everdur Size of Opening 35 S/ Diameter 4 Inches Length 16 Feet
Range in Depth { Top 168'6" Feet Geologic Formation Red Bank
Bottom 184'6" Feet
Tail piece. Diameter _____ Inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 8-11-54 Yield 22.3 Gallons per minute
Static water level before pumping 24 Feet below surface
Pumping level 90 feet below surface after 12 hours pumping
Drawdown 66 Feet Specific Capacity .31 Gals. per min. per ft. of drawdown
How Pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type DWT Capacity 30 Gallons per minute
How Driven Elec Horse Power 3 R.P.M. 1760
Depth of pump in well 122'9" Feet Depth of Foot piece in well 122'9"-132'9" Feet
Depth of Air Line in well 120 Feet Type of Meter on Pump _____
10. USED FOR Gen Supply
AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No. _____
Taste _____ Odor _____ Color _____ Temperature _____ °F
12. LOG Attached Are samples available? Yes
(Give details on back of sheet or on separate sheet)
13. SOURCE OF DATA Drill records, files
14. DATA OBTAINED BY Rob. Hartman DATE 2-15-55

(Note: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

SUPPLY WELL LOG

29.13-812

MEASURING S. CO. WPCP 29-1154

Job 4 ✓ GARDEN STATE PARKWAY

Address TINTON AVE. (TEMP. SERVICE AREA)

Date Started 6-18-54

Completed

7-14-54

Driller **TALLMAN, S F LEE**

Diameter. 6" x 4" In.

29.13.812
29-01154

Measured from Grade ☒ Yes ☐ No

Depth 6" - 170' Ft. 0" In.

Above 1 Ft. 5 In. Below 1 Ft. 0 In.

Static Level 24 Ft. In.

Elevation..... 56.3 Ft.

	STRATUM		TEMPERATURE	
	THICKNESS	DEPTH	SAND	WATER
SANDY LOAM	2'	2'		
GREEN & BROWN SAND	1'	3'	140°	
GREEN & BROWN SAND & GRAVEL	3'	6'		
GREEN & BROWN SANDY CLAY	4'	10'		
BLACK SILT, CLAY & MICA	7'	17'		
GREEN SANDY CLAY, SILT & MICA	3'	20'	"	
GREEN MARL, SOME WATER.	18'	33'	"	
BLACK SILT, MICA & CLAY	17'	50'	Tinton	
BLACK MARL, SILT, CLAY, FEN GRITS & SHELL	20"	70'	" " R.B.	
GRAY SILT, CLAY, GRITS, SHELL & MICA	65'	135'	Red Bank	
LIGHT GRAY CLAY, BLACK MARL, SILT & SHELL	13'	148'	" "	
BLACK SILT, CLAY, SOME SAND & GRAVEL	7'	155'	" "	
SILT, VERY FINE SAND & LAYERS OF CLAY, SHELL MICA	19'	174'	Screen	
MEDIUM COARSE SAND, LAYERS OF CLAY, SILT & MICA	26'	200'		
		120'	-OBS W/OUT	

MEASURING POINT

6" 170'-0"

4" 171'-6"

168'-6"

TOP OF PACKER

BOTTOM OF CASING

144'-6"

184'-6"

24'

15'-0"

SKETCH OF LOCATION

Show North Point

Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Type of Screen—

JOHN DEERE 10 4" x 16"

NOTE— If screen is finished off with riser, give exact description of top of riser—(size and male or female thread.)

REMARKS—

29.13.812

29-1154

ESTABLISHED 1899

United States Testing Company, Inc.

HOBOKEN, N. J.

TELEPHONE HOBOKEN 3-3100

NUMBER

76643-E

(Refer to this number)

REPORT

29.13.812
29-01154

August 27, 1954.

Client

New Jersey Highway Authority
C/o Miller-Warden Associates
Box 19 -B R.D. #1
Eatontown, New Jersey

Subject

Well Water Survey -- Sample taken from Tinton Ave. Area
By United States Testing Company representative on 8/13/54.Purpose of Test:

The object of the test was to analyze the water for conformance to Article 2.3.10 Water Quality Guarantee of the Garden State Parkway supplementary specifications Contract No. 148 - Sections 7, 8, 10 and 11.

Method of Test:

The tests were conducted in accordance with the Standard Methods for the Examination of Water & Sewage, 9th Edition, American Public Health Association.

Results of Test:

	<u>Results</u>	<u>Requirements</u>
<u>Bacteriological</u>	Negative	No evidence of presence of the Coliform group.
	<u>Results</u>	<u>Requirements</u>
<u>Physical</u>		
Turbidity	4 ppm	Less than 5 ppm (silica scale)
	<u>Results</u>	<u>Requirements</u>
<u>Chemical Constituents</u>		
Arsenic	Not found	Less than 0.05 ppm
Selenium	Not found	Less than 0.05 ppm
Hexavalent Chromium	Less than 0.02 ppm	Less than 0.05 ppm
Zinc	Less than 1 ppm	Less than 15 ppm
Manganese } Combined	Not found	Less than 3.0 ppm
Iron	Less than 0.1 ppm	
Chloride (as Cl)	10.7 ppm	Less than 250 ppm.

1
Page of 2

Supervised by

C.K. Crocker

United States Testing Company, Inc.

BY

M.J. Maziarski

MZ

OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHER OR THE USE OF THE NAME OF UNITED STATES TESTING COMPANY, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS.

C 11ARI-7 54 25

WELREC 107 0961

29.13.812

29-1154

ESTABLISHED 1890

United States Testing Company, Inc.

HOBOKEN, N. J.

TELEPHONE HOBOKEN 3-3166

NUMBER

76643-E

(Refer to this number)

REPORT

29.13.812
29-01154

August 27, 1954.



Client:

New Jersey Highway Authority
c/o Miller-Warden Associates
Box 19-B R.D. #1
Eatontown, New Jersey

Subject:

Well Water Survey -- Sample taken from Tinton Ave. Area
By United States Testing Company representative on 8/13/54.

Chemical Constituents (Cont'd)

	<u>Results</u>	<u>Requirements</u>
Sulphates (as SO ₄)	12 ppm	Less than 250 ppm
Phenolic Compounds (as Phenol)	Not found	Less than 0.001 ppm
Total Solids	136 ppm	Less than 1000 ppm
Magnesium	2 ppm	Less than 125 ppm
Nitrates (as NO ₃)	0.1 ppm	Less than 50 ppm

Conclusion:

The water sample, identified as above, meets the requirements of the Garden State Parkway Contract No. 148 - Section 7, 8, 10 and 11.

CONTINUED - PAGE #2

OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME OF UNITED STATES TESTING COMPANY, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OR APPARENTLY IDENTICAL OR SIMILAR PRODUCTS.

C-11 BRT-2-54.10

WELREC 107 0962

29.13.812
C. W. LAUMAN & CO., INC.

29-1154

WATER ANALYSIS

BETHPAGE, L. I.
Hicksville 3-2305

29.13.812
29-01154

No. **848**

50 CHURCH ST., N. Y. C.

Dist. 0.0313

Date 9/1/54

Name 4 ST GARDEN STATE PARKWAY
Address WINTON AVE. SITE
Source of Sample TRIP. WELL

Collection Date

Point of Collection

1. 9/1/54 PUMP DISCHARGE
2. _____
3. _____
4. _____

	1	2	3	4
Hydrogen Ion Conc. (pH)	7.5			
Free Carbon Dioxide, as CO2 ppm	9.5			
Alkalinity "P", as CaCO3 ppm	4			
Total Alkalinity, as CaCO3 ppm	96			
Hardness, total, as CaCO3 ppm	96			
Chlorides, as Cl ppm	12			
Iron, as Fe ppm	Trace			
Nitrates, as N ppm	Trace			
Turbidity, as SiO2 ppm	.45			
Hexavalent Chromium ppm	0.0			

Corrosion Index = 15.7 Non Corrosive High alk and Hardness

Remarks: _____

Analyzed by HEB
9/1/54
Date _____

C. W. LAUMAN & CO., INC.
HEA
by _____

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF WATER POLICY & SUPPLY

Permit No. 29-3374
Application No. _____
County _____

WELL RECORD

Well # 1

29.13.818
29-03374

1. OWNER Redacted - Privacy Act ADDRESS 199-Port Monmouth, N.J.
Owner's Well No. 11 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Tinton Falls
3. DATE COMPLETED 8/14/60 DRILLER A.P. Tice & Son
4. DIAMETER: top 4 Inches Bottom 4 Inches TOTAL DEPTH 68 Feet
5. CASING: Type Blk steel Diameter 4 Inches Length 68 Feet
6. SCREEN: Type no ne Size of Opening _____ Diameter _____ Inches Length _____ Feet
Range { Top _____ Feet Geologic Formation _____
Bottom _____ Feet
- Tail piece. Diameter _____ Inches Length _____ Feet
7. WELL FLOWS NATURALLY no Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 8/15/60 Yield 10 Gallons per minute
Static water level before pumping 16 Feet below surface
Pumping level 40 feet below surface after _____ hours pumping
Drawdown 28 Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How Pumped gas pump How measured 5 gallon bucket
Observed effect on nearby wells none
9. PERMANENT PUMPING EQUIPMENT:
Type Jet Mfrs. Name Rapi-Dayton
Capacity 10 G.P.M. How Driven electric H.P. 1 R.P.M. 3400
Depth of Pump in well cellar Feet _____ Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet _____ Depth of Meter on Pump _____
10. USED FOR domestic AMOUNT Average 350 Gallons Daily
Maximum 450 Gallons Daily
11. QUALITY OF WATER irony Sample: Yes _____ No X
Taste none Odor sylphur Color clear Temp. 54 °F
12. LOG _____ Are samples available no
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)
13. SOURCE OF DATA written in back daily
14. DATA OBTAINED BY Arthur P. Tice Date 9/4/60

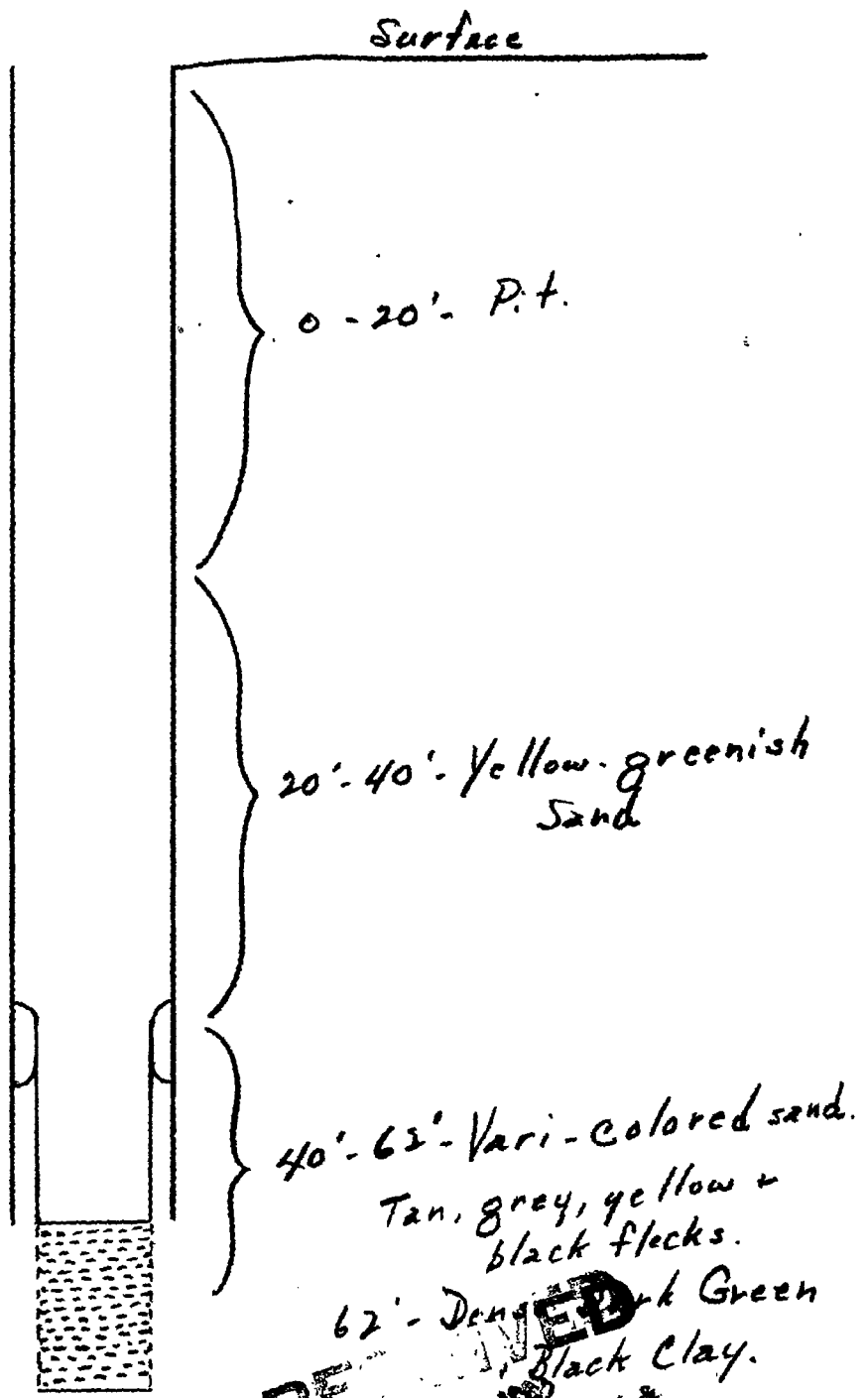
(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements etc.)

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF WATER POLICY & SUPPLY
WELL RECORD

29-13-818 ☒
Permit No. 29-3863
Application No. _____
County 29.13.818
29-03863

1. OWNER Redacted - Privacy Act ADDRESS Box 260 Nolan Rd. Morganville
Owner's Well No. _____ SURFACE ELEVATION 70 Feet N. J.
(Above mean sea level)
2. LOCATION Nolan Rd., Morganville, N. J.
3. DATE COMPLETED June 30, 1962 DRILLER Greenhalgh & Kaye
4. DIAMETER: top _____ Inches Bottom _____ Inches TOTAL DEPTH 62 Feet
5. CASING: Type Black Steel Diameter 4 Inches Length _____ Feet
6. SCREEN: Type Cook Size of Opening 25 Diameter 4 Inches Length 4 Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet Geologic Formation _____
- Tail piece: Diameter _____ Inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date June 30, 1962 Yield 10 Gallons per minute
Static water level before pumping 19 Feet below surface
Pumping level 28 feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How Pumped Cylinder How measured 50 Gal. Drum
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
- Type _____ Mfrs. Name _____
- Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
- Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
- Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ Inches
10. USED FOR Domestic AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER Good Sample: Yes _____ No _____
Taste Good Odor None Color Clear Temp. _____ °F
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)
13. SOURCE OF DATA Drillers
14. DATA OBTAINED BY R. Kaye & F. Long Date July 10, 1962

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements etc.)



RECEIVED
JUL 12 1962
DEPT. OF CONSERVATION &
ECONOMIC DEVELOPMENT
GEOLOGIC & TOP. SURVEY

29-13-818

FORM 87 ~

DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF WATER POLICY & SUPPLY

Permit No. 29-5076
Application No. _____
County 29.13.818

WELL RECORD

1. OWNER Redacted - Privacy Act ADDRESS Wayside Road, Tinton Falls, N.J.
Owner's Well No. ONE SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Wayside Road, Tinton Falls
3. DATE COMPLETED May 24 /66 DRILLER William R. Tice Sr.
4. DIAMETER: top four inches Bottom four inches TOTAL DEPTH 96 Feet
5. CASING: Type std. weight steel. Diameter four inches Length 84 Feet
6. SCREEN: Type none. Size of Opening _____ Diameter _____ inches Length _____ Feet
Range in Depth { Top _____ Feet
Bottom _____ Feet Geologic Formation _____
Tail piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY no Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date May 23/66 Yield _____ Gallons per minute
Static water level before pumping _____ 14 Feet below surface
Pumping level 17 feet below surface while pumping 1000 g.p.h. for 4hrs.
Drawdown 3 Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How Pumped submersible test pump. How measured five gal. pail.
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type submersible Mfrs. Name MYERS
Capacity 15 G.P.M. How Driven Electric H.P. 1/2 R.P.M. 3450
Depth of Pump in well 40 Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR one family home. AMOUNT { Average _____ Gallons Daily
PH 7.8 Maximum _____ Gallons Daily
11. QUALITY OF WATER Iron .5 p.p.m. Sample: Yes _____ No _____
Hardness 6 g.p.g.
Taste good Odor none Color clear Temp. 54 °F
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)
13. SOURCE OF DATA _____
14. DATA OBTAINED BY William R. Tice Sr. Date May 1966

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements etc.)

WELREC 107 0971

29-13-579

FD-302 87

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCESPermit No. 29-7536
Application No. _____
County _____

29.13.579

WELL RECORD 29-7536

Vocational Educational Building

1. OWNER M & R. Mechanical Contractors ADDRESS P.O. Box 435, Highlands, N.J.Owner's Well No. _____ SURFACE ELEVATION 69 Feet
(Above mean sea level)2. LOCATION New Shrewsbury, N.J.3. DATE COMPLETED Sept. 24, 1974 DRILLER Kaye Well Drilling, Inc.4. DIAMETER: top 4 inches Bottom 4 inches TOTAL DEPTH 144 Feet5. CASING: Type Black Steel Diameter 4 inches Length 131 Feet6. SCREEN: Type Johnson ^{Stainless Steel} size of opening 16 Diameter 4 inches Length 10 FeetRange in Depth { Top _____ Feet
Bottom _____ Feet Geologic Formation _____

Tail piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface

Water rises to _____ Feet above surface

8. RECORD OF TEST: Date Sept. 24, 1974 Yield 20 Gallons per minuteStatic water level before pumping 20 Feet below surfacePumping level 100' Air Line below surface after _____ hours pumping

Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown

How Pumped Air Compressor How measured 50 Gal. Drum

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type _____ Mfrs. Name _____

Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____

Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet

Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

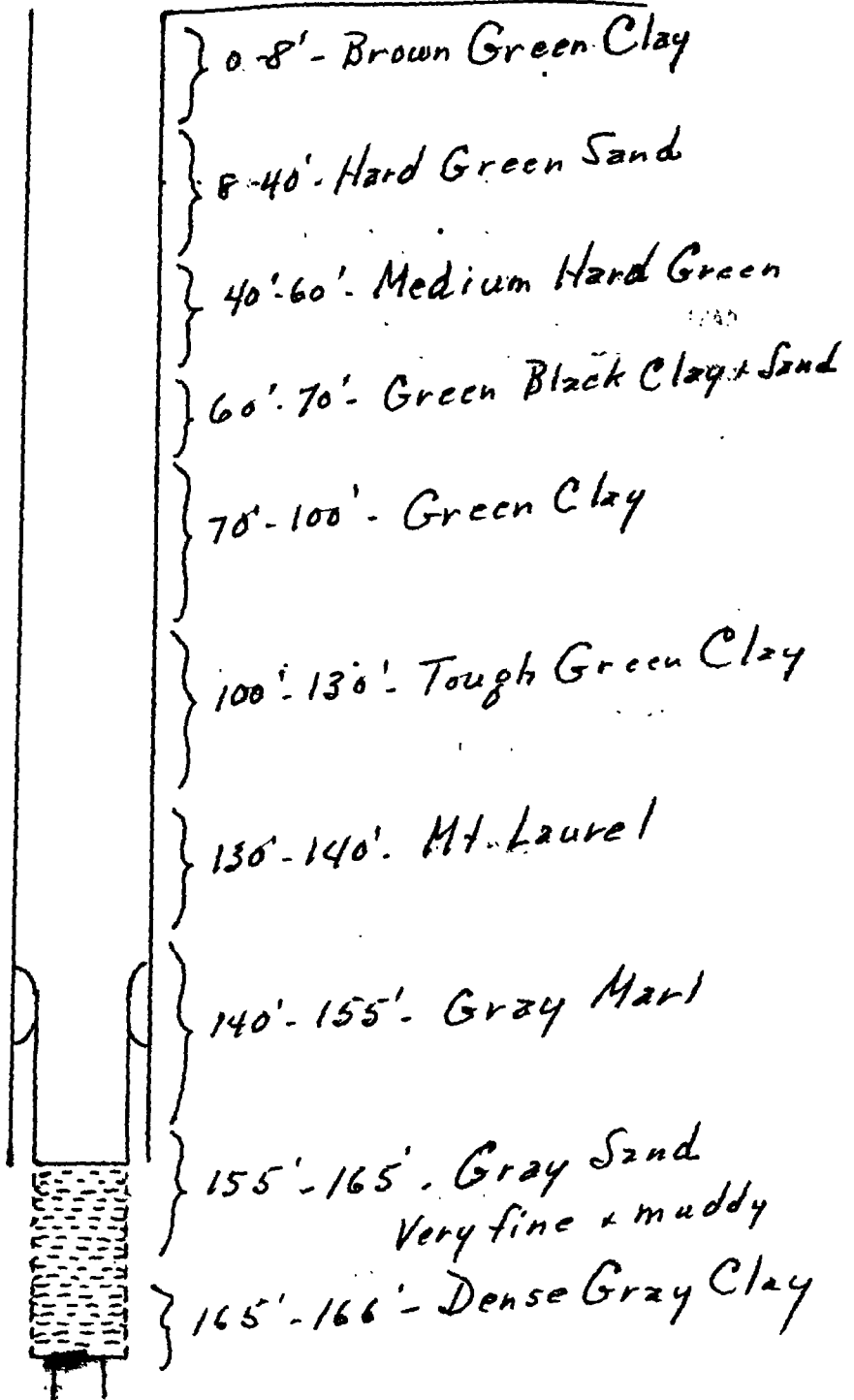
10. USED FOR Domestic AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily11. QUALITY OF WATER Good Sample: Yes _____ No _____Taste Good Odor None Color Clear Temp. _____ °F12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)13. SOURCE OF DATA Drillers14. DATA OBTAINED BY Kaye Well Drilling, Inc. Date Oct. 8, 1974

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements etc.)

29.13.579

29.7586

Surface



RECEIVED
OCT 11 11 11 AM '76
AND
LOGO
TOPOGRAPHY

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCESPermit No. 29-8442
Application No. _____
County _____

WELL RECORD

29.13.595

29.8442

1. OWNER M.T.B. Inc. ADDRESS 270 Oak Knoll Rd., Lakewood, N.J.
Owner's Well No. _____ SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Lakehurst Rd., Jackson, N.J. 0735 1/229
3. DATE COMPLETED 8/5/76 DRILLER William Brown
4. DIAMETER: top 3 inches Bottom 2 inches TOTAL DEPTH 50 Feet
5. CASING: Type steel Diameter 3 inches Length 44 Feet
6. SCREEN: Type con. slit. Size of Opening 1/8 Diameter 2 inches Length 3 Feet
- Range in Depth { Top 46 Feet
Bottom 50 Feet Geologic Formation sand and gravel
- Tail piece: Diameter 1" inches Length 40 Feet
7. WELL FLOWS NATURALLY _____ Gallons per Minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 8/5/76 Yield 8 Gallons per minute
Static water level before pumping 29 Feet below surface
Pumping level 40 feet below surface after one hours pumping
Drawdown 11 Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How Pumped compressor How measured 5 gal. pail
Observed effect on nearby wells none
9. PERMANENT PUMPING EQUIPMENT:
Type jet Mfrs. Name PAN
Capacity _____ G.P.M. How Driven elect. H.P. 1 R.P.M. 3450
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR domestic AMOUNT { Average 300 Gallons Daily
Maximum 350 Gallons Daily
11. QUALITY OF WATER good Sample: Yes X No. _____
Taste good Odor none Color clear Temp. _____ of
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy)
13. SOURCE OF DATA drillers log
14. DATA OBTAINED BY William Brown Date 8/5/76

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements etc.)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

29-13-579

PERMIT NO. 29-11733

APPLICATION NO. _____

COUNTY Monmouth

WELL RECORD

Redacted - Privacy Act

1. OWNER _____ ADDRESS 329 Newman Springs Rd.
Owner's Well No. 29-11733 SURFACE ELEVATION 85 Feet
(Above mean sea level)
2. LOCATION Lot 29 Blk 367 Middle Town Twp.
3. DATE COMPLETED 12/9/81 DRILLER James Pettier 661
4. DIAMETER: Top 4 inches Bottom 4 inches TOTAL DEPTH 111 Feet
5. CASING: Type drive steel Diameter 4 inches Length 105 Feet
6. SCREEN: Type S.S. Size of Opening 12 slot Diameter 4 inches Length 4 Feet
Range in Depth { Top 105 Feet Bottom 111 Feet } Geologic Formation Fine gray sand & lime stone
Tail Piece: Diameter 3 inches Length 2 Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 12/9/81 Yield 10 Gallons per minute
Static water level before pumping 16 Feet below surface
Pumping level 33 feet below surface after 2 hours pumping
Drawdown 17 Feet Specific Capacity 12 Gals. per min. per ft. of drawdown
How pumped rod & cylinder How measured stop watch & 5 gal pail
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT: Did Not Install
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ Inches
10. USED FOR domestic AMOUNT { Average 150 Gallons Daily
Maximum 300 Gallons Daily
11. QUALITY OF WATER good Sample: Yes ☒ No ☐
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA _____
14. DATA OBTAINED BY J. Allen Conover 95/ Date 12/21/81

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.579
29.11733

0-30	yellow sand & clay
30-50	green clay & sand
50-64	gray clay-sand-shell
64-93	" " & black sand
93-95	green-gray & black sand
95-115	gray clay
105-111	fine gray sand & lime stone

Pittes adapter

JAN 25 1962

FOR IRRIGATION PURPOSES ONLY

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

29.13.9.4.2
PERMIT NO. 29-12070
APPLICATION NO. _____
COUNTY monmouth

WELL RECORD

29.13.942
29.12070

1. OWNER Redacted - Privacy Act ADDRESS 25 Bernard St. Eatontown
Owner's Well No. W SURFACE ELEVATION 50 Feet
(Above mean sea level)
2. LOCATION Same as above
3. DATE COMPLETED 5-18-82 DRILLER (David) (Norman) Primost
4. DIAMETER: Top 6½ inches Bottom _____ inches TOTAL DEPTH 12 Feet
5. CASING: Type PVC Sched 40 Diameter 2 inches Length 17 Feet
6. SCREEN: Type PVC Size of Opening .018 Diameter 1½ inches Length 5 Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation TOT (W.T. Well)
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 5-18-82 Yield 6 Gallons per minute
Static water level before pumping 4 Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped (Centrifugal) (Air Lift) How measured Container
Observed effect on nearby wells None
9. PERMANENT PUMPING EQUIPMENT:
Type (Shallow) (Deep) JET Mfrs. Name (GOULDS) (CRANE-DEMING)
Capacity 15 G.P.M. How Driven Electric H.P. 1 R.P.M. 3450
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR IRRIGATION AMOUNT { Average 2,000 Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No X
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
13. SOURCE OF DATA Pickwick Well Drilling DRILLER Dand...
P.O. Box 6
14. DATA OBTAINED BY Farmingdale, N.J. 07727 Date 7/6/82

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

**FOR IRRIGATION
PURPOSES ONLY**

WELL RECORD

29.13.8.3.9

PERMIT NO. 29-12719

APPLICATION NO. _____

COUNTY Monmouth
29.13.839

1. OWNER Redacted - Privacy Act ADDRESS 211 Grant Ave Eatontown
Owner's Well No. _____ SURFACE ELEVATION 60 Feet
(Above mean sea level)
2. LOCATION Same as above Lot # 12 Block 99-2
3. DATE COMPLETED 4-21-83 DRILLER (David) (Monmouth) Primost
4. DIAMETER: Top 6 1/2 inches Bottom _____ inches TOTAL DEPTH 48 Feet
5. CASING: Type PVC Sched 40 Diameter 2 inches Length 43 Feet
6. SCREEN: Type PVC Size of Opening .018 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation KEB (W.T. Well)
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 4-21-83 Yield 11 Gallons per minute
Static water level before pumping 7 1/2 Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped (Centrifugal) (Lift) How measured Container
Observed effect on nearby wells None
9. PERMANENT PUMPING EQUIPMENT:
Type (Shallow) (JET) Mfrs. Name (GOULDS) (Monmouth)
Capacity 15 G.P.M. How Driven Electric H.P. 1 R.P.M. 3450
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ Inches
10. USED FOR IRRIGATION AMOUNT { Average 2,000 Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER Good Sample: Yes _____ No X
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
13. SOURCE OF DATA Pickwick Well Drilling DRILLER D. J. Purnum
P.O. Box 6
14. DATA OBTAINED BY Farmingdale, N.J. 07727 Date 5-21-83

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

29.13.586
PERMIT NO. 29-13187
APPLICATION NO. _____
COUNTY _____

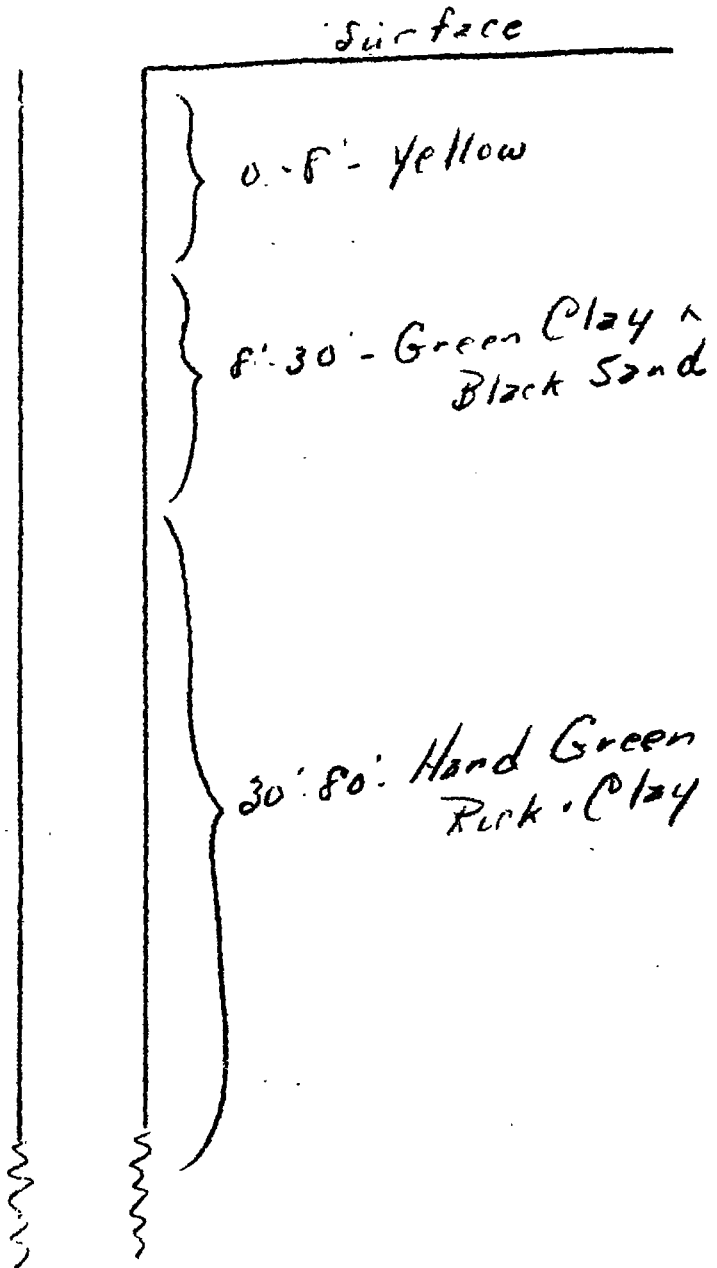
29.13.586
WELL RECORD
29.13187

1. OWNER Tinton Woods ADDRESS 301 Tinton Ave., Eatontown, N.J.
Owner's Well No. _____ SURFACE ELEVATION 50 Feet
(Above mean sea level)
2. LOCATION Route 537, Eatontown, N.J.
3. DATE COMPLETED Sept. 9, 1983 DRILLER Kaye Well Drilling, Inc.
4. DIAMETER: Top 4 inches Bottom 4 inches TOTAL DEPTH 80 Feet
5. CASING: Type Black Steel Diameter 4 Inches Length 41 Feet
6. SCREEN: Type None Size of Opening _____ Diameter _____ Inches Length _____ Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ Inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date Sept. 9, 1983 Yield 60 Gallons per minute
Static water level before pumping 15 Feet below surface
Pumping level 40 feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped Cylinder How measured 5 Gal. Pail
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ Inches
10. USED FOR Irrigation AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER Good Irony Sample: Yes _____ No _____
Taste Good Irony Odor None Color Clear Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers
14. DATA OBTAINED BY Kaye Well Drilling, Inc. Date Oct. 11, 1983

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.586

29.13.187



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO. 291352-9
APPLICATION NO. _____
COUNTY Monmouth
29.13.843

**FOR MONITORING
PURPOSES ONLY**

WELL RECORD

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 1 SURFACE ELEVATION 106.93 (Assumed Datum) Feet
2. LOCATION Lot: Hecon Property Municipality: Madison Boro
3. DATE COMPLETED 2/15/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 45 Feet
5. CASING: Type STEEL PVC Diameter 4 inches Length 25 Feet
6. SCREEN: Type PVC Size of Opening 0.20 inches Diameter 4 inches Length 20 Feet
Range in Depth { Top 25 Feet
Bottom 40 Feet
Geologic Formation Raritan
Tail Piece: Diameter _____ inches Length _____ feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Geologist Well Log New England Pollution Control, Co., Inc.
14. DATA OBTAINED BY Herb Woike Date 7/9/84
Brian J. Beahan (NEPCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

GEOTECHNICAL WELL LOG

29-13524-9

New England Pollution Control Co., Inc
7 Edgewater Place
Norwalk, CT 06855

29.13.863
2913524

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Reddish brown medium to coarse sand, homogeneous.	3	0-3	Location: Hecon Building Eatontown, NJ
- Greenish brown medium to coarse sand, homogeneous.	3	3-6	Well No: 12 1
- Greenish medium to coarse sand, glauconitic causing sands to stick together.	8	6-14	Date Completed: 2/15/84
- Brownish medium to coarse sand. Some glauconite and few clay lenses.	16	14-30	Drilling Method: Hollow Stem Auger 13" O.D.
- Brown, medium to coarse sand, few clay lenses, damp at about 40'.	15	30-45	Sample Method: N/A
			Samples Examined By: Herb Woike
			Reference Point: T.O.C.
			Elevation Of R. P.: 106.93 (Assumed Datum)
			Casing: N/A
			Screen Type: 25' solid PVC 20' Slotted PVC
			Diameter: 4 Inch
			Static Water Level: _____
			Remarks: Clean, no product.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

2913863-7

**FOR MONITORING
PURPOSES ONLY**

WELL RECORD

PERMIT NO. 2913863-7

APPLICATION NO. Monmouth

COUNTY 29.13.863

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 2 SURFACE ELEVATION 108.88 (Assumed Datum) Feet
(Above mean sea level)
2. LOCATION Lot: Hecan Facility Municipality: Madison Boro
3. DATE COMPLETED 2/15/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 0.20 (2036f) Diameter 4 inches Length 20 Feet
Range in Depth { Top 20 Feet
Bottom 40 Feet } Geologic Formation Raritan
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCO Geologist WELL LOG.
14. DATA OBTAINED BY Herb Waikes Date 7/9/84
Brian Beachon

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc
 7 Edgewater Place
 Norwalk, CT 06855
 29.13.863
 2913525

29-13525-7

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Brown clay sized particles, little to no sand.	7	0-7	Location: <u>Hecon Building Eatontown, NJ</u>
- Reddish brown medium to coarse sand with few well rounded pebbles.	3	7-10	Well No: <u>#2</u>
			Date Completed: <u>2/15/84</u>
			Drilling Method: <u>Hollow Stem Auger 13" O.D</u>
- Greenish brown medium to coarse sand, few pebbles and clay lenses.	2	10-12	Sample Method: <u>N/A</u>
			Samples Examined By: <u>Herb Wolke</u>
- Brownish medium to coarse sand, with common cobbles and some clay, more resis- tent.	1	12-13	Reference Point: <u>T.O.C.</u>
			Elevation Of R. P.: <u>108.88 (Assumed Datum)</u>
- Brown medium to coarse sand, no coarse fragments, some clay.	7	13-20	Casing: <u>N/A</u>
			Screen <u>20' solid PVC</u> Type: <u>20' slotted PVC</u>
			Diameter: <u>4 Inches</u>
- Dark brown sand, more clay, material holds together well.	7	20-27	Static Water Level: _____
			Remarks: <u>Clean, no product.</u>
- Some sand and clay but color change to reddish brown.	13	27-40	

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO. 2913863-5
APPLICATION NO. _____
COUNTY Monmouth
2913863

**FOR MONITORING
PURPOSES ONLY**

WELL RECORD

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 3 SURFACE ELEVATION 108.24 (Assumed datum) Feet
(Above mean sea level)
2. LOCATION Heron Facility Municipality: Madison Boro
3. DATE COMPLETED 2/15/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 70 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 020 20 Slot Diameter 4 inches Length 20 Feet
Range in Depth { Top 20 Feet Bottom 40 Feet Geologic Formation Raritan.
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ OF.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCO Geologist Well Log.
14. DATA OBTAINED BY Aerb Waite Date 7/9/84
Brian J. Baehm (NEPCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc
7 Edgewater Place
Norwalk, CT 06855

29-13526-5

29.13.863

2913526

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Reddish brown medium to coarse sand, homogeneous.	2	0-2	Location: <u>Hecon Building Eatontown, NJ</u>
- Reddish brown medium to coarse sand, few well rounded pebbles and cobbles.	6	2-8	Well No: <u>#3</u>
			Date Completed: <u>2/15/84</u>
			Drilling Method: <u>Hollow Stem Auger 13" O.D</u>
- Brown medium to coarse sand with few pebbles and some clay.	5	8-13	Sample Method: <u>N/A</u>
			Samples Examined By: <u>Herb Woike</u>
- Greenish brown medium to coarse glauconitic sand, few pebbles and cobbles, more clay evident.	27	13-40	Reference Point: <u>T.O.C.</u>
			Elevation Of R. P.: <u>108.24</u>
			Casing: <u>N/A</u>
			Screen <u>20' solid PVC</u> Type: <u>20' slotted PVC</u>
			Diameter: <u>4 Inches</u>
			Static Water Level: _____
			Remarks: <u>Clean, no product.</u>

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO. 2913527-3

APPLICATION NO. _____

COUNTY Monmouth

**FOR MONITORING
PURPOSES ONLY**

WELL RECORD

2913863

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 4 SURFACE ELEVATION 106.54 ~~106.54~~ Assumed datum Feet
(Above mean sea level)
2. LOCATION Heaven, Fertility Municipality: Madison Boro
3. DATE COMPLETED 2/16/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 20/40 Diameter 4 inches Length 20 Feet
- Range in Depth { Top 20 Feet
Bottom 40 Feet
- Geologic Formation Raritan
- Tail Piece: Diameter _____ inches Length _____ feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCO GEOLOGIST WELL LOG
14. DATA OBTAINED BY HERB WOIKE Date 7/9/84
BRIAN J BEAHAN (NEPCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

New England Pollution Control Co., Inc
7 Edgewater Place
Norwalk, CT 06855

29-135273

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Brown medium to coarse sand, with traces of clay.	9	0-9	Location: <u>Hecon Building Eatontown, NJ</u>
			Well No: <u>#4</u>
- Greenish brown medium to coarse glauconitic sand, intermittent clay layer, inches thick.	21	9-30	Date Completed: <u>2/16/84</u>
			Drilling Method: <u>Hollow Stem Auger 13" O.D</u>
- Brownish medium to coarse sand, some clay in in- termittent lenses.	10	30-40	Sample Method: <u>N/A</u>
			Samples Examined By: <u>Herb Woike</u>
			Reference Point: <u>Grade (curb box)</u>
			Elevation Of R. P.: <u>106.54</u>
			Casing: <u>N/A</u>
			Screen <u>20' solid PVC</u> Type: <u>20' slotted PVC</u>
			Diameter: <u>4 Inches</u>
			Static Water Level: _____
			Remarks: <u>Clean, no product.</u>

**FOR MONITORING
PURPOSES ONLY**

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

291 ✓ 28-1

PERMIT NO. _____

APPLICATION NO. _____
Monmouth

COUNTY _____

29.13.863

WELL SEALED 1/17/91 **WELL RECORD**

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 5 SURFACE ELEVATION 106.45 (Assumed datum) Feet
(Above mean sea level)
2. LOCATION Lothecon Facility Municipality: Madison Boro
3. DATE COMPLETED 2/16/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length Feet
6. SCREEN: Type PVC Size of Opening 0.20 inches Diameter 4 inches Length 40 Feet
Range in Depth { Top 0 Feet Bottom 40 Feet
Geologic Formation Baritan.
Tail Piece: Diameter inches Length Feet
7. WELL FLOWS NATURALLY Gallons per minute at Feet above surface
Water rises to Feet above surface
8. RECORD OF TEST: Date Yield Gallons per minute
Static water level before pumping Feet below surface
Pumping level feet below surface after hours pumping
Drawdown Feet Specific Capacity Gals. per min. per ft. of drawdown
How pumped How measured
Observed effect on nearby wells
9. PERMANENT PUMPING EQUIPMENT:
Type Mfrs. Name
Capacity G.P.M. How Driven H.P. R.P.M.
Depth of Pump in well Feet Depth of Footpiece in well Feet
Depth of Air Line in well Feet Type of Meter on Pump Size inches
10. USED FOR Monitoring AMOUNT { Average Gallons Daily
Maximum Gallons Daily
11. QUALITY OF WATER Sample: Yes No
Taste Odor Color Temp. °F.
12. LOG Are samples available?
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCO GEOLOGIST WELL LOG.
14. DATA OBTAINED BY HERB WOIKE Date 7/9/84
Brian J. Barkan (NEPCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc
7 Edgewater Place
Norwalk, CT 06855

29-13528-1

29.13.863

29.13.863
2913528

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Light brown silt and very fine grained sand.		0-5	Location: <u>Hecon Building</u> <u>Easton, NJ</u>
- Brown medium to coarse sand, with a little clay.		5-9	Well No: <u>#5</u>
- Reddish brown medium to coarse sand, few pebbles.		9-15	Date Completed: <u>2/16/84</u>
- Greenish brown medium to coarse glauconitic sand, some clay lenses.		15-27	Drilling Method: <u>Hollow Stem Auger 13" O.D.</u>
- Same material with strong oil smell.			Sample Method: <u>N/A</u>
			Samples Examined By: <u>Herb Woike</u>
			Reference Point: <u>Grade (curb box)</u>
			Elevation Of R. P.: <u>106.45</u>
			Casing: <u>N/A</u>
			Screen Type: <u>40' slotted PVC</u>
			Diameter: <u>4 Inches</u>
			Static Water Level: _____
			Remarks: <u>Under parking lot.</u> <u>Strong product smell.</u>

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO. 2913529-D
APPLICATION NO. _____
COUNTY Monmouth

**FOR MONITORING
PURPOSES ONLY**

2913.863

WELL RECORD

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 6 SURFACE ELEVATION 107.56 (Assumed datum) Feet
2. LOCATION HECON FACILITY Municipality: Madison Boro
3. DATE COMPLETED 2/16/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 25 Feet
6. SCREEN: Type PVC Size of Opening 020 s/bt Diameter 4 inches Length 25 Feet
Range in Depth { Top 5 Feet Bottom 40 Feet Geologic Formation Raritan
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCO GEOLOGIST WELL LOG.
14. DATA OBTAINED BY HERB NOIKE Date 7/9/84
Brian Beehan (Nepco)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

GEOTECHNICAL WELL LOG
 New England Pollution Control Co., Inc
 7 Edgewater Place
 Norwalk, CT 06855
 29.13.863
 2913529

29-13529-0

Drill Master: Dan Fiorentino

Page ____ of ____

Description	Thickness (In feet)	Depth	Owner: _____
- Reddish brown medium to coarse sand, few pebbles somewhat rounded, some clay.		0-5	Location: <u>Hecon Building Eatontown, NJ</u>
			Well No: <u>#6</u>
			Date Completed: <u>2/16/84</u>
- Light brown medium to coarse sand more clay present.		5-7	Drilling Method: <u>Hollow Stem Auger 13" O.D</u>
			Sample Method: <u>N/A</u>
- Well rounded cobbles mostly some sand, pro- bably fill.		10-14	Samples Examined By: <u>Herb Woike</u>
			Reference Point: <u>T.O.C.</u>
- Brown medium to coarse sand. Few pebbles and a little clay.		10-14	Elevation Of R. P.: <u>107.56</u>
			Casing: <u>N/A</u>
- Greenish brown medium to coarse glauconitic sand, few pebbles. (Product odor at 22')		14-28	Screen <u>5' solid PVC</u> Type: <u>35' slotted PVC</u>
			Diameter: <u>4 Inches</u>
			Static Water Level: _____
- Brown medium to coarse sand with intermittent clay lenses.		28-38	Remarks: <u>product smell</u>
- Same as last but real wet.		38-40	

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

2913551-6

**FOR MONITORING
PURPOSES ONLY**

WELL RECORD

PERMIT NO. _____
APPLICATION NO. _____
Monmouth
COUNTY 2913, 863

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 7 SURFACE ELEVATION 106.60 (Assumed Data) Feet
(Above mean sea level)
2. LOCATION HECON Facility Municipality: Madison Boro
3. DATE COMPLETED 2/29/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 29 Feet
6. SCREEN: Type PVC Size of Opening 20/50 inches Diameter 4 inches Length 20 Feet
Range in Depth { Top 20 Feet Bottom 40 Feet Geologic Formation Raritan
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCO GEOLOGIST WELL LOG.
14. DATA OBTAINED BY HERB WOIKE Date 7/9/84
Brian Beahan (NEPCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

New England Pollution Control Co, Inc
7 Edgewater Place
Norwalk, CT 06855
29.13.863

29-13551-6

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Brown medium to coarse loose sand, many well rounded pebbles and cobbles.	8	0-8	Location: Hecon Building Eatontown, NJ
			Well No: #7
			Date Completed: 2/29/84
- Brown medium to coarse sand. Slight greenish tinge, common pebbles, few cobbles, some thin gray clay layers after (12) feet.	4	8-19	Drilling Method: Hollow Stem Auger 13" O.D.
			Sample Method: N/A
			Samples Examined By: Herb Woike
- Brownish green glauconitic medium to coarse sand, sticky, no coarse frag- ments.	5	19-24	Reference Point: Grade (curb box)
			Elevation Of R. P.: 106.60 (Assumed Datum)
			Casing: N/A
- Color change to more brown medium - coarse sand.	6	24-30	Screen Type: 20' solid PVC 20' slotted PVC
			Diameter: 4 Inches
- Moist greenish brown medium - coarse sand.	10	30-40	Static Water Level: _____
			Remarks: Under parking lot. Clean, no product.

WELL SEALED

1/26/91

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

2913863-4

FOR MONITORING
PURPOSES ONLY

WELL RECORD

PERMIT NO. _____

APPLICATION NO. _____

Monmouth

COUNTY _____

2913863

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 8 SURFACE ELEVATION 106.25 (Assumed Datum) Feet
(Above mean sea level)
2. LOCATION Hecon Facility Municipality: Madison Boro
3. DATE COMPLETED 2/29/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 020 Diameter 4 inches Length 20 Feet
- Range in Depth { Top 20 Feet
Bottom 40 Feet
- Geologic Formation Raritan
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCCO GEOLOGIST WELL LOG
14. DATA OBTAINED BY HERB WOIKE Date 7/9/84
Brian J. Beekman (NEPCCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated,
analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

New England Pollution Control Co, Inc
 7 Edgewater Place
 Norwalk, CT 06855
 29.13.863
 2913552

29-13552-4

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Reddish brown medium to coarse loose sand, many well rounded pebbles and cobbles.	8	0-8	Location: <u>Hecon Building Eatontown, NJ</u>
			Well No: <u>#8</u>
			Date Completed: <u>2/29/84</u>
- Brown medium to coarse sand with few pebbles.	2	8-10	Drilling Method: <u>Hollow Stem Auger 13" O.D.</u>
			Sample Method: <u>N/A</u>
- Greenish medium to coarse loose sand no coarse fragments.	3	10-13	Samples Examined By: <u>Herb Woike</u>
			Reference Point: <u>Grade (curb box)</u>
- Green medium to coarse glauconitic sand, sticky, no coarse fragments. (Product smell at 22')	17	13-30	Elevation Of R. P.: <u>106.25 (Assumed Datum)</u>
			Casing: <u>N/A</u>
- Greenish brown medium to coarse sand, damp.	10	30-40	Screen Type: <u>20' solid PVC 20' slotted PVC</u>
			Diameter: <u>4 Inches</u>
			Static Water Level: _____
			Remarks: <u>Product Smell</u>

1/26/91

**FOR MONITORING
PURPOSES ONLY**STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO.

2913863-2

APPLICATION NO.

Monmouth

COUNTY

29,13.863

WELL RECORD

1. OWNER UNDERWRITERS ADJUSTING CO. ADDRESS P.O. BOX 688
Owner's Well No. 9 SURFACE ELEVATION 106.40 (Assumed Datum) Feet
(Above mean sea level)
2. LOCATION Heron Facility Municipality: Madison Boro
3. DATE COMPLETED 2/29/84 DRILLER New England Pollution Control
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 20 Diameter 4 inches Length 20 Feet
- Range in Depth { Top 20 Feet
Bottom 40 Feet
- Geologic Formation Raritan
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NERCO GEOLOGIST WELL LOG.
14. DATA OBTAINED BY HERB WOIKE Date 7/9/84
Brian J. Beahan (NERCO)

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated,
analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.863

New England Pollution Control Co, Inc
7 Edgewater Place
Norwalk, CT 06855
29.13.863
2913553

29-13553-2

Drill Master: Dan Fiorentino

Page 1 of 1

Description	Thickness (in feet)	Depth	Owner: _____
- Brown medium to coarse loose sand, few pebbles and well rounded cobbles.	4	0-4	Location: <u>Hecon Building Eatontown, NJ</u>
			Well No: <u>#9</u>
- Reddish brown medium to coarse loose sand, no coarse fragments.	3	4-7	Date Completed: <u>2/29/84</u>
			Drilling Method: <u>Hollow Stem Auger 13" O.D.</u>
- Greenish brown medium to coarse loose sand.	8	7-15	Sample Method: <u>N/A</u>
			Samples Examined By: <u>Herb Woike</u>
- Green medium to coarse glaucinitic sand, sticky, some fluid clay layers. (Product smell at 29')	16	15-31	Reference Point: <u>Grade (curb box)</u>
			Elevation Of R. P.: <u>106.40 (Assumed Datum)</u>
- Light brown medium to coarse sand, moist, some clay.	11	31-40	Casing: <u>N/A</u>
			Screen <u>20' solid PVC</u> Type: <u>20' Slotted PVC</u>
			Diameter: <u>4 Inches</u>
			Static Water Level: _____
			Remarks: <u>Product Smell</u> <u>10" of product by days end</u>

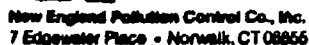
STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

29-13-863
WELL RECORD

PERMIT NO. 29-1358
APPLICATION NO. ✓
COUNTY Monmouth

1. OWNER Underwriter's Adjusting Co. ADDRESS P.O. Box 688
Owner's Well No. RW SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION HECON Facility Madison Boro, N.J.
3. DATE COMPLETED 3/15/89 DRILLER New England Pollution Control Co.
4. DIAMETER: Top 30 inches Bottom 30 inches TOTAL DEPTH 52 Feet
5. CASING: Type Mild Steel Diameter 12 inches Length 28 Feet
6. SCREEN: Type Doerr Mild Steel Size of Opening _____ Diameter 12 inches Length 20 Feet
Range in Depth { Top 26 Feet
Bottom 46 Feet
Geologic Formation Raritan
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Recovery of Hydrocarbons AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA NEPCLO BORING LOG.
14. DATA OBTAINED BY JAY VANLIERE Date 7/9/84
BRIAN J. BEAHAN

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)



29-13581
NEW ENGLAND POLLUTION CONTROL CO., INC.
X NORWALK, CT (203) 853-1900
□ ROBBINSVILLE, NJ (609) 260-3333
□ BATAVIA, NY (716) 343-8444

29,13.863 2913581

Page 1 of 1WELREC 107 1266

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913586
PERMIT NO. 2914431



29.13.586

WELL RECORD

29.14431

APPLICATION NO. _____
COUNTY Monmouth

1. OWNER RANNEY SCHOOL ADDRESS 235 HOPE RD.

Owner's Well No. 1 SURFACE ELEVATION _____ Feet

2. LOCATION Lot: 1A Block: 29 Municipality: Tinton Falls Boro

3. DATE COMPLETED 12/21/84 DRILLER A.C. Schultes & Sons, Inc.

4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 25 Feet

5. CASING: Type PVC Diameter 8 inches Length 5 Feet

6. SCREEN: Type PVC Size of Opening .045 Diameter 8 inches Length 20 Feet

Range in Depth { Top 5 Feet
Bottom 25 Feet

Geologic Formation _____

Tail Piece: Diameter _____ Inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface

Water rises to _____ Feet above surface

8. RECORD OF TEST: Date 12/21/84 Yield 50 Gallons per minute

Static water level before pumping 5 Feet below surface

Pumping level 10 feet below surface after 2 hours pumping

Drawdown 5 Feet Specific Capacity 10 Gals. per min. per ft. of drawdown

How pumped With Air How measured 5 Gal. Bucket

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type Submersible Mfrs. Name Worthington

Capacity 100 G.P.M. How Driven Electric Motor 5 R.P.M. 3450

Depth of Pump in well 25 Feet Depth of Footpiece in well n/a Feet

Depth of Air Line in well 25 Feet Type of Meter on Pump unknown Size Unknown inches

10. USED FOR Irrigation AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER Good Sample Yes No
Taste None Odor None Color clear Temp 58 °F.

12. LOG See Attached Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)

13. SOURCE OF DATA Drillers Log

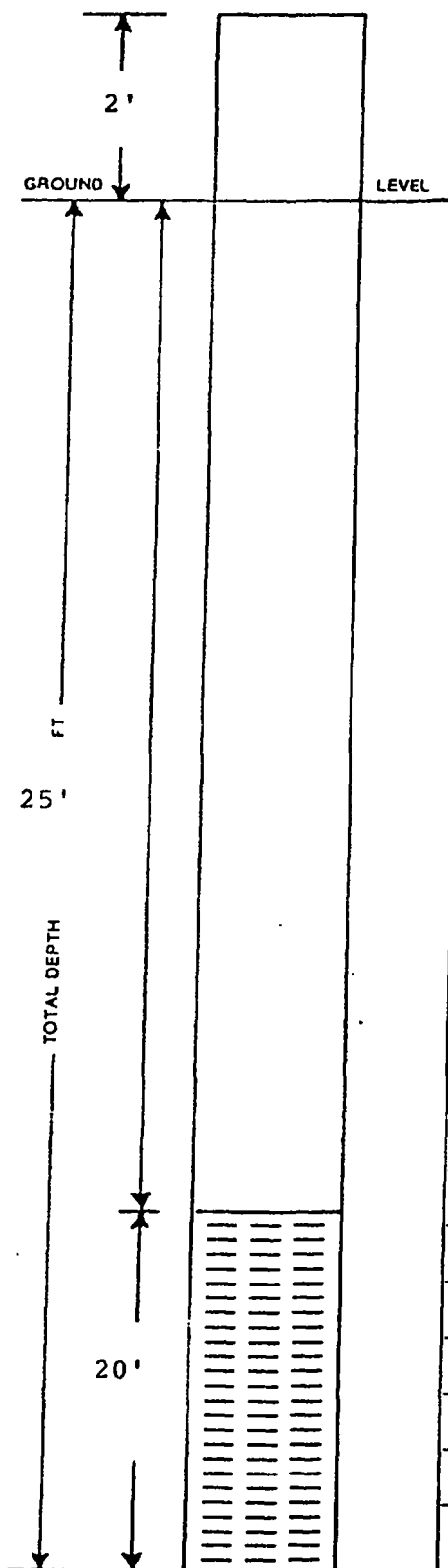
14. DATA OBTAINED BY A. C. Schultes/William Jefferys Date 2/28/85

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.586
A.C. SCHULTES & SONS, INC.

SINGLE CASED WELL

29-14431
29.13.586



WELL LOG	FEET FROM GROUND SURFACE 0 to ———	NAME OF OWNER
		Ranney School
		Location
Top Soil	0 - 2	Tinton Falls, NJ
Clay	2 - 11	Well No. 1
Cemented Sand	11 - 30	State Permit
		Job No 20198
		Test Pumped (Hrs) 1 w/air
		Capacity (GPM) 50 GPM
		Static Level 5'
		Pumping Level
		Datum
		Specific Capacity
		Diameter of Casing 8"
		Depth of Well (Ground) 25'
		Depth to Gravel 3'
		Gravel Size #1
		Length of Casing & Screen 27'
		Screen Material P.V.C.
		Screen Mfg.
		Screen Dia. 8"
		Length of Screen 20'
		Top of Screen Fitting To 8" Pipe
		Bottom of Screen Fitting P.V.C. Plug
		Slot Size .045
		Seal Material
		Quantity
		Depth of Seal Material
		Drilling Machine 6B
		Date Well Completed 12-21-84
		Driller Jim Duffy

29-13-839
STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

29.13.839
PERMIT NO. 29-16207
APPLICATION NO. _____
COUNTY Monmouth
29.13.839

WELL RECORD

Redacted - Privacy Act

1. OWNER _____ ADDRESS 144 Grant Ave, Eatontown
Owner's Well No. 1 SURFACE ELEVATION 52 Feet
(Above mean sea level)
2. LOCATION 144 Grant Ave. Lot 2 Blk 94 Eatontown
3. DATE COMPLETED 8-2-86 DRILLER Vin Peltier #661
4. DIAMETER: Top 4 inches Bottom 4 inches TOTAL DEPTH 117 Feet
5. CASING: Type DRIVE STEEL Diameter 4 inches Length 111 Feet
6. SCREEN: Type SAWTOOTH STEEL Size of Opening .016 Diameter 4 inches Length 6 Feet
- Range in Depth { Top 111 Feet
Bottom 117 Feet
- Geologic Formation GREEN CLAY + BLACK SAND
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 8-2-86 Yield 20 Gallons per minute
Static water level before pumping 12 Feet below surface
Pumping level 63 feet below surface after 2 hours pumping
Drawdown 51 Feet Specific Capacity 22+ Gals. per min. per ft. of drawdown
How pumped TEST Pumped - Rod & cylinder How measured STOP WATCH + 5 GAL PAIL
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type Submersible Mfrs. Name Myers
Capacity 19 G.P.M. How Driven ELEC H.P. 1 R.P.M. 3450
Depth of Pump in well 70 Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Domestic AMOUNT { Average 150 Gallons Daily
Maximum 300 Gallons Daily
11. QUALITY OF WATER Good Sample: Yes ☒ No _____
Taste Good Odor None Color Clear Temp. 54 OF.
12. LOG _____ Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA _____
14. DATA OBTAINED BY GREAT WATER INC WAB Date 8-2-86

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

0 - 10	yellow sand & clay
10 - 67	Green Sand & clay
67 - 117	green clay & Black sand

Pitler Adolph

434

4

$$w_1 = \frac{1}{2} \left(\frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}} \right) = \frac{1}{2}$$

6

بسم الله الرحمن الرحيم

51

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1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979. 1980. 1981. 1982. 1983. 1984. 1985. 1986. 1987. 1988. 1989. 1990. 1991. 1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000. 2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100. 2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120. 2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140. 2141. 2142. 2143. 2144. 2145. 2146. 2147. 2148. 2149. 2150. 2151. 2152. 2153. 2154. 2155. 2156. 2157. 2158. 2159. 2160. 2161. 2162. 2163. 2164. 2165. 2166. 2167. 2168. 2169. 2170. 2171. 2172. 2173. 2174. 2175. 2176. 2177. 2178. 2179. 2180. 2181. 2182. 2183. 2184. 2185. 2186. 2187. 2188. 2189. 2190. 2191. 2192. 2193. 2194. 2195. 2196. 2197. 2198. 2199. 2200. 2201. 2202. 2203. 2204. 2205. 2206. 2207. 2208. 2209. 2210. 2211. 2212. 2213. 2214. 2215. 2216. 2217. 2218. 2219. 2220. 2221. 2222. 2223. 2224. 2225. 2226. 2227. 2228. 2229. 2230. 2231. 2232. 2233. 2234. 2235. 2236. 2237. 2238. 2239. 2240. 2241. 2242. 2243. 2244. 2245. 2246. 2247. 2248. 2249. 2250. 2251. 2252. 2253. 2254. 2255. 2256. 2257. 2258. 2259. 2260. 2261. 2262. 2263. 2264. 2265. 2266. 2267. 2268. 2269. 2270. 2271. 2272. 2273. 2274. 2275. 2276. 2277. 2278. 2279. 2280. 2281. 2282. 2283. 2284. 2285. 2286. 2287. 2288. 2289. 2290. 2291. 2292. 2293. 2294. 2295. 2296. 2297. 2298. 2299. 2300. 2301. 2302. 2303. 2304. 2305. 2306. 2307. 2308. 2309. 2310. 2311. 2312. 2313. 2314. 2315. 2316. 2317. 2318. 2319. 2320. 2321. 2322. 2323. 2324. 2325. 2326. 2327. 2328. 2329. 2330. 2331. 2332. 2333. 2334. 2335. 2336. 2337. 2338. 2339. 2340. 2341. 2342. 2343. 2344. 2345. 2346. 2347. 2348. 2349. 2350. 2351. 2352. 2353. 2354. 2355. 2356. 2357. 2358. 2359. 2360. 2361. 2362. 2363. 2364. 2365. 2366. 2367. 2368. 2369. 2370. 2371. 2372. 2373. 2374. 2375. 2376. 2377. 2378. 2379. 2380. 2381. 2382. 2383. 2384. 2385. 2386. 2387. 2388. 2389. 2390. 2391. 2392. 2393. 2394. 2395. 2396. 2397. 2398. 2399. 2400. 2401. 2402. 2403. 2404. 2405. 2406. 2407. 2408. 2409. 2410. 2411. 2412. 2413. 2414. 2415. 2416. 2417. 2418. 2419. 2420. 2421. 2422. 2423. 2424. 2425. 2426. 2427. 2428. 2429. 2430. 2431. 2432. 2433. 2434. 2435. 2436. 2437. 2438. 2439. 2440. 2441. 2442. 2443. 2444. 2445. 2446. 2447. 2448. 2449. 2450. 2451. 2452. 2453. 2454. 2455. 2456. 2457. 2458. 2459. 2460. 2461. 2462. 2463. 2464. 2465. 2466. 2467. 2468. 2469. 2470. 2471. 2472. 2473. 2474. 2475. 2476. 2477. 2478. 2479. 2480. 2481. 2482. 2483. 2484. 2485. 2486. 2487. 2488. 2489. 2490. 2491. 2492. 2493. 2494. 2495. 2496. 2497. 2498. 2499. 2500. 2501. 2502. 2503. 2504. 2505. 2506. 2507. 2508. 2509. 2510. 2511. 2512. 2513. 2514. 2515. 2516. 2517. 2518. 2519. 2520. 2521. 2522. 2523. 2524. 2525. 2526. 2527. 2528. 2529. 2530. 2531. 2532. 2533. 2534. 2535. 2536. 2537. 2538. 2539. 2540. 2541. 2542. 2543. 2544. 2545. 2546. 2547. 2548. 2549. 2550. 2551. 2552. 2553. 2554. 2555. 2556. 2557. 2558. 2559. 2560. 2561. 2562. 2563. 2564. 2565. 2566. 2567. 2568. 2569. 2570. 2571. 2572. 2573. 2574. 2575. 2576. 2577. 2578. 2579. 2580. 2581. 2582. 2583. 2584. 2585. 2586. 2587. 2588. 2589. 2590. 2591. 2592. 2593. 2594. 2595. 2596. 2597. 2598. 2599. 2600. 2601. 2602. 2603. 2604. 2605. 2606. 2607. 2608. 2609. 2610. 2611. 2612. 2613. 2614. 2615. 2616. 2617. 2618. 2619. 2620. 2621. 2622. 2623. 2624. 26

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STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-116766

APPLICATION NO. _____

COUNTY Monmouth

WELL RECORD

29.13.854
2916766

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SA-1 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 41.5 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 36.5 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
Range in Depth { Top 36.5 Feet
Bottom 41.5 Feet } Geologic Formation _____
Tail Piece: Diameter _____ inches Length _____ feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield NONE Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13.854
2916766

Clay & silt, to cf sand

0-41.5'

29,13.854

JAN 11 1966

RECEIVED
JAN 11 1966

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16767
APPLICATION NO. 6
COUNTY Monmouth
2913854
2916767

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SA-4 SURFACE ELEVATION N/A Feet
(Above mean sea level)
 2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
 3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
 4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 51.5 Feet
 5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 46.5 Feet
 6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 3 Feet
- Range in Depth { Top 46.5 Feet
Bottom 51.5 Feet } Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
 8. RECORD OF TEST: Date NONE Yield NONE Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
 9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
 10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
 11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ OF.
 12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
 13. SOURCE OF DATA Drillers Log
 14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.854
2916767

C-F sand, tr sut
0-51.5'

BUREAU OF LAND MANAGEMENT
JAN 11 1 40 PM '93
N.J. 1111

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16768

APPLICATION NO. _____

COUNTY Monmouth

29,13,854
2916768

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. ~~SD~~ SD-2 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 50.3 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 45.3 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
Range in Depth { Top 45.3 Feet
Bottom 50.3 Feet } Geologic Formation _____
Tail Piece: Diameter _____ inches Length _____ feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield NONE Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ OF.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.854
29.16768

F-M-C sand, tr & gravel, tr silt

0-50.3'

NOV 11 1993

JAN 11 1994

BUFFALO

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16769

APPLICATION NO. 6

COUNTY Monmouth

29.13.84
2916769

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. 5A-9 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 40.3 Feet
5. CASING: Type sch. 40 PRC Diameter 1 1/2 inches Length 35.3 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
Range in Depth { Top 35.3 Feet
Bottom 40.3 Feet Geologic Formation _____
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ **FOR OBSERVATION PURPOSES ONLY**
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.854
2910769

F-M-C Sand, tr SILT

0-40.3

CG 11 11 11

103

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16770

APPLICATION NO. _____

COUNTY Monmouth

29.13.854
2916770

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SD-13 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 41.5 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 36.5 Feet
6. SCREEN: Type sch. 40 Size of Opening 020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 36.5 Feet
Bottom 41.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ FOR OBSERVATION PURPOSES ONLY Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29, 13.854
2910770

F Sand, tr SILT
0-41.5

87
M. J. N.
JAN 11 11 40 AM '93
ALBUQUERQUE
NM

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16771
APPLICATION NO. E
COUNTY Monmouth
29,13854
2916771

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SE-1 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 30,04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 36.5 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 31.5 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet

Range in Depth { Top 31.5 Feet
Bottom 36.5 Feet } Geologic Formation _____

Tail Piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface

Water rises to _____ Feet above surface

8. RECORD OF TEST: Date NONE Yield _____ FOR OBSERVATION PURPOSES ONLY
Gallons per minute

Static water level before pumping _____ Feet below surface

Pumping level _____ feet below surface after _____ hours pumping

Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown

How pumped _____ How measured _____

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type NONE Mfrs. Name _____

Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____

Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet

Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER _____ Sample: Yes _____ No _____

Taste _____ Odor _____ Color _____ Temp. _____ OF.

12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)

13. SOURCE OF DATA Drillers Log

14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13.854
2916771

Clay & silt, tr of sand
0-36.5'

RECEIVED
JAN 11 1966
BUREAU OF LAND MANAGEMENT
FOR

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16772

APPLICATION NO. _____

COUNTY Monmouth

29.13.854
2916772

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SE-6 SURFACE ELEVATION 111.7 Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 36.5 Feet
5. CASING: Type sch. 40 Pvc Diameter 1 1/2 inches Length 31.5 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet

Range in Depth { Top 31.5 Feet
Bottom 36.5 Feet

Geologic Formation _____

Tail Piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface

Water rises to _____ Feet above surface

8. RECORD OF TEST: Date NONE Yield _____ FOR OBSERVATION PURPOSES ONLY Gallons per minute

Static water level before pumping _____ Feet below surface

Pumping level _____ feet below surface after _____ hours pumping

Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown

How pumped _____ How measured _____

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type NONE Mfrs. Name _____

Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____

Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet

Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER _____ Sample: Yes _____ No _____

Taste _____ Odor _____ Color _____ Temp. _____ °F.

12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)

13. SOURCE OF DATA Drillers Log

14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13.854
2916772

CF sand, tr. silt
0-36.5'

2000-01-11

Jan 11 14 17 93

BURTON
2-2

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-10773

APPLICATION NO. _____

COUNTY Monmouth

29.13.854
2916773

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SF-3 SURFACE ELEVATION 111A Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 41.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 36.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 36.5 Feet
Bottom 41.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ FOR OBSERVATION PURPOSES ONLY Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13,854
291673

F Sand, sm sut

0-41.5'

NOV 11 1993

JAN 11 1994

BUREAU OF LAND MANAGEMENT
ALBUQUERQUE

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-10774
APPLICATION NO. _____
COUNTY Monmouth

WELL RECORD

29.13.854
2916774

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SF-1 SURFACE ELEVATION 11/17 Feet
(Above mean sea level)
2. LOCATION Lot: 30.04 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/80 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 41.5 Feet
5. CASING: Type Sch. 40 Pvc Diameter 1 1/2 inches Length 36.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening 0.20" Diameter 1 1/2 inches Length 5 Feet
Range in Depth { Top 36.5 Feet
Bottom 41.5 Feet Geologic Formation _____
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.854
2916774

F Sand, tr SILT
0-41.5'

NO. 1 - 1013
JAN 11 1963
BURDEN &
AUSTIN

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913882

PERMIT NO. 29-16775
APPLICATION NO. Monmouth
COUNTY 29,13,882

WELL RECORD

39

NJ DOT 306 MAIN STREET

1. OWNER _____ ADDRESS _____

Owner's Well No. SB-2 SURFACE ELEVATION N/A Feet
Lot: 8A9A Block: 113 Municipality: Tinton Falls Boro

2. LOCATION _____

3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING

4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 63 Feet

5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 58 Feet

6. SCREEN: Type Sch. 40 Size of Opening 020" Diameter 1 1/2 inches Length 5 Feet

Range in Depth { Top 58 Feet
Bottom 63 Feet

Geologic Formation _____

Tail Piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface

8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute

Static water level before pumping _____ Feet below surface

Pumping level _____ feet below surface after _____ hours pumping

Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown

How pumped _____ How measured _____

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type NONE Mfrs. Name _____

Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____

Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet

Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER _____ Sample: Yes _____ No _____

Taste _____ Odor _____ Color _____ Temp. _____ °F.

12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)

13. SOURCE OF DATA Drillers Log

14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

FOR OBSERVATION PURPOSES ONLY

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.002
2916775

F-M-C sand, tr f gravel, tr silt

0-15'

F-M-C sand, tr silt

15'-45'

F sand, tr silt

45'-63'

21.1.1968

JAN 11 1968

BURTON & CO
LONDON

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913802

PERMIT NO. 29-16776

APPLICATION NO. Monmouth

COUNTY 29.19.802

WELL RECORD

- NJ DOT 306 MAIN STREET
1. OWNER _____ ADDRESS _____
- Owner's Well No. SB-9 SURFACE ELEVATION N/A Feet
Lot: 8A9A Block: 113 Municipality: Tinton Falls Boro
2. LOCATION _____
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 71.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 71.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 71.5 Feet
Bottom 76.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
- Static water level before pumping _____ Feet below surface
- Pumping level _____ feet below surface after _____ hours pumping
- Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
- How pumped _____ How measured _____
- Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
- Type NONE Mfrs. Name _____
- Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
- Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
- Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
- Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13,882

2916725

Clay & silt, or of sand

0-40'

C-F sand, tr. silt

40' - 76.5'

Curriculum

EG. "1 6E 1 11 NPS.

308

PERMIT NO. 29-16777
APPLICATION NO. 6
COUNTY Monmouth
29.13.854
2916777

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R-403L SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: N/A Block: N/A Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 46.5 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 41.5 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 41.5 Feet
Bottom 46.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield NONE Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

CMF Sand, tr silt

29.13.854

2916777

0 - 10.5'

F Sand, silty

10.5 - 28.5

CMF Sand, tr trash

28.5 - 46.5

NOV 10 1993

JAN 11 1994

BURO OF LAND
ALLOCATION

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R-406 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: N/A Block: N/A Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 41.5 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 36.5 Feet
6. SCREEN: Type sch. 40 Size of Opening 020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 36.5 Feet
Bottom 41.5 Feet } Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ FOR OBSERVATION PURPOSES ONLY Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.854
2916778

Fmc sand 0-1.5'

F Sand, sm SILT
1.5' - 11.5'

F Sand, tr SILT
11.5' - 36.5'

F Sand, sm SILT
36.5' - 41.5'

2000 11/14

JAN 11 1400 1999

BUR-AT 10-11-11
ALL DAY

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913854

PERMIT NO. 29-16779

APPLICATION NO. 6

COUNTY Monmouth

29.13.854
2916779

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R-4012 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Lot: 30 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/80 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 60.4 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 55.4 Feet
6. SCREEN: Type sch. 40 Size of Opening 020" Diameter 1 1/2 inches Length 5 Feet
Range in Depth { Top 55.4 Feet
Bottom 60.4 Feet } Geologic Formation _____
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ **FOR OBSERVATION PURPOSES ONLY**
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? NO
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.854
2916779

CMF Sand, tr f gravel

0 - 36.5'

CMF Sand, tr clay, tr SILT
36.5' - 60.4'

ST-1
N-17
JAN 11 11 40 AM '93
"ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED"

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913858

PERMIT NO. 29-16780

APPLICATION NO. _____

COUNTY Monmouth

29.13.858
2916780

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R 455 SURFACE ELEVATION 111A Feet
(Above mean sea level)
2. LOCATION Lot: 1.2 Block: 115 Municipality: Tinton Falls Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 46.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 41.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 41.5 Feet
Bottom 46.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
- Static water level before pumping _____ Feet below surface
- Pumping level _____ feet below surface after _____ hours pumping
- Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
- How pumped _____ How measured _____
- Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
- Type NONE Mfrs. Name _____
- Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
- Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
- Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
- Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

MF sand, tr silt

CMF sand, tr f gravel

MF sand, tr clay, tr silt

16.5' - 46.5'

86. "1 12 1 11 197

WELREC 107 1215

WELL RECORD

29.13.858
2916781

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R 458 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 1.2 Block: 1/5 Municipality: Tinton Falls Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 16.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 11.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 11.5 Feet
Bottom 16.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.858
2916781

MF Sand, tr silt
0 - 16.5'

4

EG: "I'm not" 11:30

107

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913858

PERMIT NO. 29-16782

APPLICATION NO. _____

COUNTY Monmouth

29.13.858

2916782

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SG-2 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 1.2 Block: 115 Municipality: Tinton Falls Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 36.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 31.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 31.5 Feet
Bottom 36.5 Feet } Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13,858
2916782

CMF Sand, tr roots, tr silt

0-30.5'

NO. 1

JAN 11 1993

BUP. ALCOHOL

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913858

PERMIT NO. 29-16783

APPLICATION NO. _____

COUNTY Monmouth

2913858
2916783

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. 36-9 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 1-2 Block: 115 Municipality: Tinton Falls Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 40.8 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 35.8 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 35.8 Feet
Bottom 40.8 Feet Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.858
2916783

F Sand, tr SILT

0-40.8'

6/11/83
11 AM
ALLEGHANY CO PA
BUT

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913858

PERMIT NO. 2.9-16784

APPLICATION NO. _____

COUNTY Monmouth

2913.858
2916784

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. SH-2 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 1.2 Block: 115 Municipality: Tinton Falls Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 46.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 41.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 41.5 Feet
Bottom 46.5 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.858
2916784

F Sand, tr silt
0-40.5'

NOV 11 1976
JAN 11 1977
BUREAU OF LAND MANAGEMENT

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913858

PERMIT NO. 29-16785

APPLICATION NO. _____

COUNTY Monmouth

29.13.858
2916785

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R 472 SURFACE ELEVATION 111A Feet
(Above mean sea level)
2. LOCATION Lot: 1.2 Block: 115 Municipality: Tinton Falls Boro
3. DATE COMPLETED 7/30/80 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 11.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 6.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
Range in Depth { Top 6.5 Feet
Bottom 11.5 Feet } Geologic Formation _____
Tail Piece: Diameter: _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield _____ Gallons per minute
FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily }
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.858
291685

MF Sand, tr clay
0 - 1.5'

OMF Sand, sm silt
1.5' - 6.5'

① M-F sand
6.5' - 11.5'

NOTED

JAN 11 1993

8UP
ALLOCATION

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO. 29-10786

APPLICATION NO.

COUNTY Monmouth

29,13,863

2910786

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R-407 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 3002 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 31.5 Feet
5. CASING: Type Sch. 40 PVC Diameter 1 1/2 inches Length 26.5 Feet
6. SCREEN: Type Sch. 40 Size of Opening .020 Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 26.5 Feet
Bottom 31.5 Feet } Geologic Formation
- Tail Piece: Diameter inches Length Feet
7. WELL FLOWS NATURALLY Gallons per minute at Feet above surface
Water rises to Feet above surface
8. RECORD OF TEST: Date None Yield Gallons per minute
Static water level before pumping Feet below surface
Pumping level feet below surface after hours pumping
Drawdown Feet Specific Capacity Gals. per min. per ft. of drawdown
How pumped How measured
Observed effect on nearby wells
9. PERMANENT PUMPING EQUIPMENT:
Type None Mfrs. Name
Capacity G.P.M. How Driven H.P. R.P.M.
Depth of Pump in well Feet Depth of Footpiece in well Feet
Depth of Air Line in well Feet Type of Meter on Pump Size inches
10. USED FOR GW monitoring AMOUNT { Average Gallons Daily
Maximum Gallons Daily
11. QUALITY OF WATER Sample: Yes No
Taste Odor Color Temp. °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13,863
2916786

tr f sand, ^{tr}silt

0-24'

F-M sand, tr silt

24'-31.5'

E. L. HUGHES

JAN 11 1 40 PM '93

BUPT
ALL INFORMATION
FOR

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913863

PERMIT NO. 29-16787

APPLICATION NO. _____

COUNTY Monmouth

WELL RECORD

29.13.863
2916787

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
Owner's Well No. R-423 SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 3002 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 46.5 Feet
5. CASING: Type sch. 40 PVC Diameter 1 1/2 inches Length 41.5 Feet
6. SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 41.5 Feet
Bottom 46.5 Feet Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date None Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type None Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

Clay & silt, tr of sand
0 - 1.5'

29.13.863
2916787

C-F sand, tr silt
1.5' - 46.5'

29.13.863

JAN 11 11 20 AM '93

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913864

PERMIT NO. 29-16788

APPLICATION NO. _____
Monmouth

COUNTY 29.13.864
2916788

WELL RECORD

- 39
- OWNER NJ DOT ADDRESS 306 MAIN STREET
 - Owner's Well No. R-425 SURFACE ELEVATION N/A Feet
(Above mean sea level)
 - LOCATION Lot: 3003 Block: 93 Municipality: Eatontown Boro
 - DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
 - DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 46.5 Feet
 - CASING: Type sch. 40 pvc Diameter 1 1/2 inches Length 41.5 Feet
 - SCREEN: Type sch. 40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
 - Range in Depth { Top 41.5 Feet
Bottom 46.5 Feet Geologic Formation _____
 - Tail Piece: Diameter _____ inches Length _____ Feet
 - WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
 - RECORD OF TEST: Date NONE Yield FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
 - PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
 - USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
 - QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
 - LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
 - SOURCE OF DATA Drillers Log
 - DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.864
2916788

M-F Sand 0-1.5'

M-F Sand, tr clay, tr SILT
1.5'-16.5'

CMF Sand 16.5'-22.5'

MF Sand, clay,
22.5'-26.5'

CMF Sand, tr SILT
26.5'-41.5'

MF Sand 41.5'-46.5'

2916788

JAN 11 1987

802-208
ALLOCATION

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

Coord: 2913864

PERMIT NO. 29-16789

APPLICATION NO. _____
Monmouth

COUNTY 29.13.864
2916789

WELL RECORD

1. OWNER NJ DOT ADDRESS 306 MAIN STREET
- Owner's Well No. R-427 L SURFACE ELEVATION N/A Feet
(Above mean sea level)
2. LOCATION Lot: 3003 Block: 93 Municipality: Eatontown Boro
3. DATE COMPLETED 7/30/86 DRILLER TESTWELL CRAIG TEST BORING
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 45.9 Feet
5. CASING: Type sch.40 PVC Diameter 1 1/2 inches Length 40.9 Feet
6. SCREEN: Type sch.40 Size of Opening .020" Diameter 1 1/2 inches Length 5 Feet
- Range in Depth { Top 40.9 Feet
Bottom 45.9 Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date NONE Yield FOR OBSERVATION PURPOSES ONLY
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type NONE Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR GW Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Back of this sheet Are samples available? No
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Drillers Log
14. DATA OBTAINED BY Testwell Craig Test Boring Date 11/12/92

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29,13,864
2916789

F-M-C Sand, tr f gravel, tr silt

0 - 12'

F-M-C Sand, tr silt

12' - 36.5'

F Sand, tr silt

36.5 - 45.9

29,13,864

JAN 11 1968

BU. 109

WELL RECORD

Well Permit No. 29 - 17933
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OF
Address 47 BROAD STREET
City EATONTOWN State NT Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17933
29, 13.836

Aquifer/Geo. Fm. _____

LOG

no
log

Fm.

Date / /

WELL RECORD

Well Permit No. 29 - 17435
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OF
Address 47 BROAD STREET
City EASTONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORU Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<i>Screens: Note Slot Size(s)</i> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17935
29.13.836

209

Fm.

[illegible]

Date ____/____/____

WELL RECORDWell Permit No. 22 - 17936
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EATONTOWN TOWNSHIP OFAddress 47 BROAD STREETCity EATONTOWNState NJZip Code 07724

WELL LOCATION - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook RoadCounty MonmouthMunicipality EATONTOWN BOROLot No. 43Block No. 55WELL USE temporary dewatering point

Status _____

WATER USE dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft.Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor

Address 806 Highway 71, P.O. Box 394City Spring Lake HeightsState N.J.Zip Code 07762Name of Driller Dennis B. DavisLicense No. M987

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17936
29.13.836

Aquifer/Geo. Fm. _____

no
log

[illegible]

Date / /

WELL RECORDWell Permit No. 29 - 17937
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.TIGER CONSTRUCTION CORP.
CONTRACTOR - Name of Drilling Contractor _____
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17937
29. 13. 836

Aquifer/Geo. Fm. _____

NO
Log

Date _____ / _____ / _____

Fm.

[illegible]

Date / /

WELL RECORDWell Permit No. 29 - 17938
Atlas Sheet Coordinates 29 : 13 : 836OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EATONTOWN State NT Zip Code 07724

WELL LOCATION - If not the same owner please give address.

Address Pine Brook Road Owner's Well No. _____
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor

Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17938
29.13.836

Aquifer/Geo. Fm. _____

no
log

[illegible]Date / /

WELL RECORD

Well Permit No. 29 - 17939
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EASTONTOWN, TOWNSHIP OF
Address 47 BROAD STREET
City EASTONTOWN State NT Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EASTONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<i>Screens: Note Slot Size(s)</i> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 17939
29, 13, 836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

no
log

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date / /

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude ° ' "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES: ☐ Lithologic Log ☐ Samples Available

Aquifer Test

☐ **Water Level Data**

☐ **Geophysical Logs**

☐ **Water Chemistry**

☐ Pollution Case

☐ Geophysical Logs☐ Pollution Case

Checked by _____

Date / /

WELL RECORDWell Permit No. 29 - 17940
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____

Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION
BOREHOLE DIMENSIONSDate well completed 3 / 20 / 87
Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfr. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor _____

Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17940
29. 13. 836

Aquifer/Geo. Fm. _____

No Log

Date ____/____/____

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]

Date / /

WELL RECORDWell Permit No. 29 - 17941
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EASTONTOWN, TOWNSHIP OF
Address 47 BROAD STREET
City EASTONTOWN State NT Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EASTONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 17941
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

*no
Log*

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____

NJPDES No. _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available
☐ Geophysical Logs ☐ Water Chemistry

☐ Aquifer Test ☐ Water Level Data
☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

WELL RECORDWell Permit No. 29 - 17942
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION
BOREHOLE DIMENSIONSDate well completed 3 / 20 / 87Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfr. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor

Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17942
29-13-836

Aquifer/Geo. Fm. _____

LOG

$$n \log$$

DEP USE ONLY

Date / /

Em.

Date ____/____/____

WELL RECORDWell Permit No. 29 - 17943
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EATONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____

Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor

Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17943
29. 13. 836

Aquifer/Geo. Fm. _____

LOG

$$\frac{n^0}{\log}$$

Date ____/____/____

Em.

Date / /

WELL RECORDWell Permit No. 29 - 17944
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREETCity EATONTOWNState NJZip Code 07724

WELL LOCATION - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook RoadCounty MonmouthMunicipality EATONTOWN BOROLot No. 45Block No. 55WELL USE temporary dewatering point

Status _____

WATER USE dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft.Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<i>Screens: Note Slot Size(s)</i> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____

Drawdown _____ ft.

Discharge rate measured using _____

Discharge Rate _____ gals. per min.

Well was pumped using _____

Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM

Power Source _____

DEPTHS: Pump _____ ft.

Footpiece _____ ft.

Airline _____ ft.

FLOWMETER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor

Address 806 Highway 71, P.O. Box 394City Spring Lake HeightsState N.J.Zip Code 07762Name of Driller Dennis B. DavisLicense No. M987

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17944
29. 13. 836

Aquifer/Geo. Fm. _____

No Log

[illegible]Date / /

WELL RECORDWell Permit No. 29 - 17945
Atlas Sheet Coordinates 29 : 13 : 836 ☐**OWNER IDENTIFICATION** - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREETCity EATONTOWNState NJZip Code 07724**WELL LOCATION** - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook RoadCounty MonmouthMunicipality EATONTOWN BOROLot No. 43Block No. 55**WELL USE** temporary dewatering point

Status _____

WATER USE dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTIONDate well completed 3 / 20 / 87**BOREHOLE DIMENSIONS**Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft.Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____

Drawdown _____ ft.

Discharge rate measured using _____

Discharge Rate _____ gals. per min.

Well was pumped using _____

Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM

Power Source _____

DEPTHS: Pump _____ ft.

Footpiece _____ ft.

Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.**CONTRACTOR** - Name of Drilling Contractor _____Address 806 Highway 71, P.O. Box 394City Spring Lake HeightsState N. J.Zip Code 07762Name of Driller Dennis B. Davis

License No. _____

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17945
29.13.836

Aquifer/Geo. Fm. _____

LOG

$$n \log$$

Date / /

Em.

Date / /

WELL RECORD

Well Permit No. 29 - 17946
Atlas Sheet Coordinates 29 : 13 : 856

OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OF

Address 47 BROAD STREET
City EASTONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address.

Address Pine Brook Road Owner's Well No. _____
County Monmouth Municipality EASTONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.

Diameter: Top 2 in. Bottom 2 in.

Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpieces _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor

TIGER CONSTRUCTION CORP.

Address 806 Highway 71, P.O. Box 394

City Spring Lake Heights State N.J. Zip Code 07762

Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17946
29. 13. 836

Aguifer/Geo. Fm. _____

$\log$

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]

Date ____/____/____

WELL RECORD

Well Permit No. 29 - 17947
Atlas Sheet Coordinates 29 : 13 : 836 ☐

OWNER IDENTIFICATION - Owner EATONTOWN TOWNSHIP OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17947
29. 13. 836

No Log

Fm.

Date ____/____/____

WELL RECORD

Well Permit No. 29 - 17948
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OF
Address 47 BROAD STREET
City EASTONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EASTONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<small>Screens: Note Slot Size(s)</small> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 17948
29.13.836

Aquifer/Geo. Fm. _____

no
Log

Date / /

Fm.

[illegible]Date / /

WELL RECORDWell Permit No. 29 - 17949
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EASTONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____

Address Pine Brook Road
County Monmouth Municipality EASTONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using temporary/ topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor

TIGER CONSTRUCTION CORP.Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17949
29.13.836

Aquifer/Geo. Fm. _____

no
log

[illegible]Date / /

WELL RECORD

Well Permit No. 29 - 17950
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EASTONTOWN, TOWNSHIP OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<small>Screens: Note Slot Size(s)</small> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.
TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor _____
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29-17950
29.13.836

Aquifer/Geo. Fm. _____

LOG

Date / /

Em.

Date / /

WELL RECORDWell Permit No. 29 - 17351
Atlas Sheet Coordinates 29 : 13 : 836 ☐**OWNER IDENTIFICATION** - Owner EASTONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724**WELL LOCATION** - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily**WELL CONSTRUCTION**Date well completed 3 / 20 / 87**BOREHOLE DIMENSIONS**Depths: Total 13 ft. Finished 13 ft.Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<small>Screens: Note Slot Size(s)</small> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.**CONTRACTOR** - Name of Drilling Contractor _____Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller DENNIS B. DAVIS License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29-17951
29. 13,836

Aquifer/Geo. Fm. _____

NO
LOG

Fm.

Date / /

WELL RECORDWell Permit No. 29 - 17952
Atlas Sheet Coordinates 29 : 13 : 836**OWNER IDENTIFICATION** - Owner EASTONTOWN, TOWNSHIP OFAddress 47 BROAD STREETCity EATONTOWNState NJZip Code 07724**WELL LOCATION** - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook RoadCounty MonmouthMunicipality EATONTOWN BOROLot No. 45Block No. 55**WELL USE** temporary dewatering point

Status _____

WATER USE dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTIONDate well completed 3 / 20 / 87**BOREHOLE DIMENSIONS**Depths: Total 13 ft.Finished 13 ft.Diameter: Top 2 in.Bottom 2 in.Land Surface Elevation at well 45 ft.Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<i>Screens: Note Slot Size(s)</i> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____

Drawdown _____ ft.

Discharge rate measured using _____

Discharge Rate _____ gals. per min.

Well was pumped using _____

Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM

Power Source _____

DEPTHS: Pump _____ ft.

Footpiece _____ ft.

Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.**CONTRACTOR** - Name of Drilling Contractor _____Address 806 Highway 71, P.O. Box 394City Spring Lake HeightsState N.J.Zip Code 07762Name of Driller Dennis B. DavisLicense No. M987

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - 17952
29. 13. 836

no
209

[illegible]

Date ____/____/____

WELL RECORD

Well Permit No. 29 18127
Atlas Sheet Coordinates 28 13 836

OWNER IDENTIFICATION - Owner RATONTOWN, TOWNSHIP OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29-18127
29, 13, 836

Aquifer/Geo. Fm. _____

LOG

10
log

Fm.

Date / /

WELL RECORD

Well Permit No. 29 - 18128
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner RATONTOWN, TOWNSHIP OF

Address 47 BROAD STREET

City RATONTOWN

State NJ

Zip Code 07724

WELL LOCATION - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook Road

County Monmouth

Municipality RATONTOWN BOBO

Lot No. 43

Block No. 66

WELL USE temporary dewatering points

Status _____

WATER USE dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.

Diameter: Top 2 in. Bottom 2 in.

Land Surface Elevation at well 45 ft.

Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____

Drawdown _____ ft.

Discharge rate measured using _____

Discharge Rate _____ gals. per min.

Well was pumped using _____

Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor

TIGER CONSTRUCTION CORP.

Address 806 Highway 71, P.O. Box 394

City Spring Lake Heights

State N.J.

Zip Code 07762

Name of Driller Dennis B. Davis

License No. M987

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

Well Permit No. 29 - K8128
29.13.834.

Aquifer/Geo. Fm. _____

no
log

Fm.

Date / /

WELL RECORDWell Permit No. 29 - 18129
Atlas Sheet Coordinates 29 13 836 ☐OWNER IDENTIFICATION - Owner EATONTOWN TOWNSHIP OFAddress 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____

Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 65WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 3 / -20 / -87BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____ Drawdown _____ ft.

Discharge rate measured using _____ Discharge Rate _____ gals. per min.

Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____

Mfrs. Name _____ Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM Power Source _____

DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor

TIGER CONSTRUCTION CORP.Address 806 Highway 71, P.O. Box 394City Spring Lake Heights State N.J. Zip Code 07762Name of Driller Dennis B. Davis License No. M987Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 18129
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

no
LOG

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____

NJPDES No. _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available ☐ Aquifer Test ☐ Water Level Data
☐ Geophysical Logs ☐ Water Chemistry ☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

WELL RECORD

Well Permit No. 29 18130
Atlas Sheet Coordinates 29 19 836

OWNER IDENTIFICATION - Owner EATONTOWN, TOWNSHIP OF
Address 47 HEGAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering points Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 3 / 20 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 45 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<i>Screens: Note Slot Size(s)</i> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor _____
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B. Davis License No. M987

Signature of Contractor _____ Date 8 / 14 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 18130
29.13.834

Aquifer/Geo. Fm. _____

LOG

^{no}
Log

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]

Date ____/____/____

WELL RECORD

Well Permit No. 29 - 18131
Atlas Sheet Coordinates 29 : 13 836

OWNER IDENTIFICATION - Owner EATONTOWN TOWNSHIP OF

Address 47 BROAD STREET

City EATONTOWN

State NJ

Zip Code 07724

WELL LOCATION - If not the same owner please give address.

Owner's Well No. _____

Address Pine Brook Road

County Monmouth

Municipality EATONTOWN BORO

Lot No. 43

Block No. 55

WELL USE Temporary Dewatering Point

Status _____

WATER USE Dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.

Diameter: Top 2 in. Bottom 2 in.

Land Surface Elevation at well 45 ft.

Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<i>Screens: Note Slot Size(s)</i> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | _____ | _____ | _____ | _____ |
| Casing 2 | _____ | _____ | _____ | _____ |
| Casing 3 | _____ | _____ | _____ | _____ |
| Screen 1 | _____ | _____ | _____ | _____ |
| Screen 2 | _____ | _____ | _____ | _____ |
| Tail Piece | _____ | _____ | _____ | _____ |
| Gravel Pack | _____ | _____ | _____ | _____ |
| Grout | _____ | _____ | _____ | _____ |
| Grouting Method | _____ | _____ | _____ | _____ |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____

Drawdown _____ ft.

Discharge rate measured using _____

Discharge Rate _____ gals. per min.

Well was pumped using _____

Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____ Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM

Power Source _____

DEPTHS: Pump _____ ft.

Footpiece _____ ft.

Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor

TIGER CONSTRUCTION CORP.

Address 806 Highway 71, P.O. Box 394

City Spring Lake Heights

State N.J.

Zip Code 07762

Name of Driller Dennis B. Davis

License No. M987

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

29.13.834

Aquifer/Geo. Fm. _____

LOG

No
Log

Date / /

Em.

[illegible]

Date ____/____/____

WELL RECORD

Well Permit No. 29 18132
29 13 836
Atlas Sheet Coordinates

OWNER IDENTIFICATION - Owner EATONTOWN, TOWNSHIP OF

Address 47 BROAD STREET

City EATONTOWN

State NJ

Zip Code 07724

WELL LOCATION - If not the same owner please give address.

Owner's Well No. _____

Address Fire Brook Road

County Monmouth

Municipality EATONTOWN BORO

Lot No. 43

Block No. 55

WELL USE Temporary Dewatering Points

Status _____

WATER USE Dewatering

Average _____ gals. daily

Maximum _____ gals. daily

WELL CONSTRUCTION

Date well completed 3 / 20 / 87

BOREHOLE DIMENSIONS

Depths: Total 13 ft. Finished 13 ft.

Diameter: Top 2 in. Bottom 2 in.

Land Surface Elevation at well 45 ft.

Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

DEPTH TO TOP
(FT.)

LENGTH
(FT.)

DIAMETER
(IN.)

TYPE AND MATERIAL
Screens: Note Slot Size(s)

Casing 1

Casing 2

Casing 3

Screen 1

Screen 2

Tail Piece

Gravel Pack

Grout

Grouting Method

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date _____ / _____ / _____

Static water-level before pumping _____ ft. below land surface.

Water level _____ ft. below land surface after _____ hrs. of pumping.

Water level was measured using _____

Drawdown _____ ft.

Discharge rate measured using _____

Discharge Rate _____ gals. per min.

Well was pumped using _____

Specific Capacity _____ gals. per min. per ft. of drawdown

Observed effects on nearby wells _____

Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by _____

Pump Type _____

Mfrs. Name _____

Model _____

CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.

POWER: _____ HP at _____ RPM

Power Source _____

DEPTHS: Pump _____ ft.

Footpiece _____ ft.

Airline _____ ft.

FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor _____

Address 806 Highway 71, P.P. Box 394

City Spring Lake Heights

State N.J.

Zip Code 07762

Name of Driller Dennis B. Davis

License No. M987

Signature of Contractor _____

Date 8 / 14 / 87

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

29.13.836

Aquifer/Geo. Fm. _____

LOG

NO
LOG

Em.

Date ____/____/____

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2919285

APPLICATION NO. _____

COUNTY Monmouth

29.13.8.63
2919285

WELL SEALED 1/26/91

WELL RECORD

1. OWNER Underwriters Adjusting Co. ADDRESS PO Box 688, Eatontown, NJ
Owner's Well No. OW 10A SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION 15 Meridian Rd, Eatontown, NJ
3. DATE COMPLETED 8-23-85 DRILLER NEPCCO
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 2020 Diameter 4 inches Length 20 Feet
Range in Depth { Top _____ Feet
Bottom _____ Feet
Geologic Formation Vincentown
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Monitor AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Nepco Geologist B. Barkan
14. DATA OBTAINED BY Nepco Geologist D. Barkan Date 9-2-87

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

WELL RECORDWell Permit No. 29-18579
Atlas Sheet Coordinates 29-13-836 ☐OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55WELL USE Dewatering Point (Temporary) Status _____WATER USE Dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfr. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Deants Buchanan License No. 1393Signature of Contractor Liger Construction Service Corp. Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 18579
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

Installed a 13' x 2" Ø temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____

NJPDES No. _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available ☐ Aquifer Test ☐ Water Level Data
☐ Geophysical Logs ☐ Water Chemistry ☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

WELL RECORDWell Permit No. 29 - 18579
Atlas Sheet Coordinates 29 : 13 836 ☐OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55WELL USE Dewatering Point (Temporary) Status _____WATER USE Dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Duchan License No. 1393Signature of Contractor Lige Contractor Service Corp. Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 18579
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

Installed a 13' x 2" Ø temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____

NJPDES No. _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____ County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available ☐ Aquifer Test ☐ Water Level Data
☐ Geophysical Logs ☐ Water Chemistry ☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

WELL RECORD

Well Permit No. 29 18580
Atlas Sheet Coordinates 29 : 13 836

OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55

WELL USE Temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchanan License No. 1393

Signature of Contractor *[Signature]* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 18580

29.13.836

Aquifer/Geo. Fm. _____

installed a 13' x 2" Ø temporary
dewatering point

Date / /

Em

Date . / /

WELL RECORD

Well Permit No. 29 18561
Atlas Sheet Coordinates 29 13 836

OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55

WELL USE Temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393

Signature of Contractor *Sign Constata Service Corp.* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 09 - 18581

29.13.836

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Em. Code _____

Completed by _____

Date / /

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

installed a 13' x 2" Ø temporary dewatering point

GWPI No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude 0 1 1

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES:

Lithologic Log

☐ **Samples Available**

Aquifer Test

☐ Water Level Data☐ Geophysical Logs☐ Water Chemistry☐ **Pollution Case**

Checked by _____

Date / /

WELL RECORD

Well Permit No. 29 - 10502
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EATONTOWN, TWP. OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<small>Screens: Note Slot Size(s)</small> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | _____ | _____ | _____ | _____ |
| Casing 2 | _____ | _____ | _____ | _____ |
| Casing 3 | _____ | _____ | _____ | _____ |
| Screen 1 | _____ | _____ | _____ | _____ |
| Screen 2 | _____ | _____ | _____ | _____ |
| Tail Piece | _____ | _____ | _____ | _____ |
| Gravel Pack | _____ | _____ | _____ | _____ |
| Grout | _____ | _____ | _____ | _____ |
| Grouting Method | _____ | _____ | _____ | _____ |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393

Signature of Contractor *Ligin Constantino-Surra dep.* Date 10 / 1 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29-18582

29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installed a 13' x 2" $\emptyset$ temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____

NJPDES No. _____

Latitude _____° _____' _____"

Longitude _____° _____' _____"

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available ☐ Aquifer Test ☐ Water Level Data

☐ Geophysical Logs ☐ Water Chemistry ☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

WELL RECORDWell Permit No. 29 - 18563
Atlas Sheet Coordinates 29 : 13 : 836 ☐OWNER IDENTIFICATION - Owner EATONTOWN, TWP. OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393Signature of Contractor *Sign Constable* Date 10 / 1 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 18583
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installed a 13' x 2" Ø temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____

NJPDES No. _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20'

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available ☐ Aquifer Test ☐ Water Level Data
☐ Geophysical Logs ☐ Water Chemistry ☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

WELL RECORD

Well Permit No. 29 18504
Atlas Sheet Coordinates 29 13 836

OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ ft. Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393

Signature of Contractor *Tiger Construction Corp.* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29-18584
29.13.836

Aquifer/Geo. Fm. _____

installation of a 13' x 2" Ø temporary
dewatering point

Date / /

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]☐ Geophysical LogsDate / /

WELL RECORDWell Permit No. 29 - 18585
Atlas Sheet Coordinates 29 : 13 : 836OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfr. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchanan License No. 1393Signature of Contractor *Liger Construction Serv Corp.* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29-18585
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installed a 13' x 2" Ø temporary
dewatering point.

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date / /

Thick.

Lith.

Em.

GWPI No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude 0 ' "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES:

☐ Lithologic Log

☐ **Samples Available**

☐ **Aquifer Test**

Water Level Data

☐ **Geophysical Logs**☐ Water Chemistry

☐ Pollution Case

Checked by _____

Date ____/____/____

WELL RECORD

Well Permit No. 20 - 18586
Atlas Sheet Coordinates 20 : 13 836

OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393

Signature of Contractor *Ligin Contrate Service Corp.* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29-18586
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installation of a 13' x 2" Ø temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date / /

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJPDES No. _____

Latitude ° ' "

Longitude 0

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES: ☐ Lithologic Log ☐ Samples Available ☐ Aquifer Test ☐ Water Level Data

☐ Geophysical Logs ☐ Water Chemistry☐ **Pollution Case**☐ **Water Level Data**☐ **Geophysical Logs**

☐ Water Chemistry

☐ **Pollution Case**☐ **Geophysical Logs**

☐ Water Chemistry

☐ **Pollution Case**

Checked by _____

Date / /

WELL RECORD

Well Permit No. 29-18567
Atlas Sheet Coordinates 29-13-836

OWNER IDENTIFICATION - Owner EATONTOWN, TWP. OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depth: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<small>Screens: Note Slot Size(s)</small> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393

Signature of Contractor *Tiger Construction Service Corp.* Date 10 / 1 / 87

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29-18587
29.13.836

Aquifer/Geo. Fm. _____

installed a 13' x 2" Ø temporary
dewatering point.

Date / /

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]

Date ____/____/____

WELL RECORD

Well Permit No. 29 - 18588
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner EATONTOWN, TWP. OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ ft. Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis B./D/ Buchanan License No. 1393

Signature of Contractor *Tiger Construction Services Inc.* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 18588

29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installed a 13' x 2" Ø temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date / /

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJPDES No. _____ - _____

Latitude 0 ' "

Longitude ° ' "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle

Drainage Basin Code

County/Municipality Code

OTHER FILES: ☐ Lithologic Log ☐ Samples Available

☐ Aquifer Test ☐ Water Level Data☐ Geophysical Logs

☐ **Samples Available**

☐ **Aquifer Test**☐ Water Level Data☐ Geophysical Logs

 Water Chemistry

☐ Pollution Case

Checked by _____

Date / /

WELL RECORDWell Permit No. 29 - 18589
Atlas Sheet Coordinates 29 : 13 : 836OWNER IDENTIFICATION - Owner EATONTOWN, TWP. OF
Address 47 BROAD STREET
City EATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality EATONTOWN BORO Lot No. 43 Block No. 55WELL USE temporary dewatering point Status _____WATER USE dewatering Average _____ gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ Drawdown _____ ft.
Discharge rate measured using _____ Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfr. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393Signature of Contractor *Sign Contractor here* Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29-18589
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installed a 13' x 2" Ø temporary
dewatering point

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____/____/____

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude ° ' "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10' ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES: ☐ Lithologic Log ☐ Samples Available

☐ **Aquifer Test**☐ Water Level Data☐ **Geophysical Logs**☐ **Water Chemistry**☐ **Pollution Case**

Checked by _____

Date / /

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 18590
Atlas Sheet Coordinates 29 : 13 : 836

OWNER IDENTIFICATION - Owner RATONTOWN, TWP. OF
Address 47 BROAD STREET
City RATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Pine Brook Road
County Monmouth Municipality RATONTOWN BORO Lot No. 43 Block No. 55

WELL USE temporary dewatering point Status _____

WATER USE dewatering Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 6 / 25 / 87
BOREHOLE DIMENSIONS Depths: Total 13 ft. Finished 13 ft.
Diameter: Top 2 in. Bottom 2 in.
Land Surface Elevation at well 70 ft. Elevation was determined using topography map #29
Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | | | | |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Grout | | | | |
| Grouting Method | | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date _____ / _____ / _____
Static water-level before pumping _____ ft. below land surface. Water level _____ ft. below land surface after _____ hrs. of pumping.
Water level was measured using _____ ft. Drawdown _____ ft.
Discharge rate measured using _____ gals. per min. Discharge Rate _____ gals. per min.
Well was pumped using _____ Specific Capacity _____ gals. per min. per ft. of drawdown
Observed effects on nearby wells _____
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor TIGER CONSTRUCTION CORP.
Address 806 Highway 71, P.O. Box 394
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. 1393

Signature of Contractor [Signature] Date 10 / 1 / 87
COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29-18590
29.13.836

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☐ Yes ☐ No

Drilling Method _____

Type of Rig _____

Aquifer/Geo. Fm. _____

LOG

installed a 13' x 2" Ø temporary
dewatering point.

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date / /

Thick.

Lith.

Em.

GWP! No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude ° ' "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES: ☐ Lithologic Log ☐ Samples Available
 ☐ Geophysical Logs ☐ Water Chemistry

☐ Aquifer Test ☐ Water Level Data
☐ Pollution Case

Checked by _____

Date / /

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc.
7 Edgewater Place
Norwalk, CT 16855

29.13.863
2919285
CLARK NEW

DRILL MASTER: DALE NELSON

PAGE OF

| DESCRIPTION | THICKNESS
(In Ft) | DEPTH | OWNER: |
|---|----------------------|---------|---|
| Concrete | .33 | 0-.33 | Hecon Facility
Eatontown, NJ |
| | | | |
| Tannish green clayey silt,
some fine sand. | 4.17 | .33-4.5 | LOCATION: |
| | | | WELL NO: 10A |
| Light brown, some green
fine to medium sand. | 3.5 | 4.5-8 | DATE COMPLETED: 8-23-85 |
| | | | DRILLING METHOD: Hollow Stem Auger |
| Fuel odor begins increasing
with depth | - | .8 | SAMPLE METHOD: Cuttings |
| | | | SAMPLES EXAMINED BY: B. Beahan |
| Very strong fuel odor | - | .26 | |
| | | | REFERENCE POINT: Top of PVC casing |
| Dark green to fine to
medium sand | 3 2 | 8-40 | ELEVATION OF R. P.: 104.57 (Assumed Datum) |
| | | | CASING: N/A |
| | | | SCREEN TYPE: 20' solid PVC
20' slotted PVC |
| SEP 8 '87 | | | DIAMETER: 4-inch |
| | | | STATIC WATER LEVEL: |
| | | | |
| | | | |

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2919286

APPLICATION NO. _____

WELL RECORD

COUNTY Monmouth
29.13.8.63
2919286

1. OWNER Underwriters Adjusting Co ADDRESS PO Box 688, Eatontown, NJ
Owner's Well No. OW 11A SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION 15 Meridian Rd Eatontown NJ
3. DATE COMPLETED 8-23-85 DRILLER _____
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 020 Diameter 4 inches Length 20 Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation Vincentown
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Motor on Pump _____ Size _____ inches
10. USED FOR Monitor AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Nepco Geologial
14. DATA OBTAINED BY Nepco Geologial Date 9-2-87

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc.
7 Edgewater Place
Norwalk, CT 16855

29, 13.863
2919284

DRILL MASTER: DALE NELSON

PAGE OF

| DESCRIPTION | THICKNESS
(In Ft) | DEPTH | OWNER: |
|--|----------------------|-------|---|
| Asphalt | .33 | 0-.33 | Hecon Facility
Eatontown, NJ |
| Tannish brown medium
sand with gravel and
pebbles | 4.67 | .33-5 | |
| Tannish brown medium to
fine sand with clean
quartz pebbles and
cobbles | 5 | 5-10 | LOCATION: |
| Spoils begin to have
greenish tint and feel
sticky | | | WELL NO: 11 A |
| Fuel odor | | 22.33 | DATE COMPLETED: 8-23-85 |
| Split spoon sample | | 25-27 | DRILLING METHOD: Hollow Stem Auger |
| Green fine to medium
sand | 8.07 | 10-40 | SAMPLE METHOD: Cuttings & Split Spoon |
| | | | SAMPLES EXAMINED BY: B. Beahan |
| | | | REFERENCE POINT: Top of PVC Casing |
| | | | ELEVATION OF R. P.: 106.66 (Assumed Datum) |
| | | | CASING: N/A |
| | | | SCREEN TYPE: 20' solid PVC
20' slotted PVC |
| | | | DIAMETER: 4-inch |
| | | | STATIC WATER LEVEL: 10.42 |

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2919287
APPLICATION NO. _____

WELL RECORD

COUNTY Monmouth
29-13-8-63
2919287

1. OWNER Underwriters Adjusting Co ADDRESS PO Box 688, Eatontown, NJ
Owner's Well No. OW 12A SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION 15 Myrick Rd, Eatontown NJ
3. DATE COMPLETED 8-24-85 DRILLER NEPCO
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening .020 Diameter 4 inches Length 2 Feet

Range in Depth { Top _____ Feet
Bottom _____ Feet

Geologic Formation Vincentian

Tail Piece: Diameter _____ Inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface

8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ Inches

10. USED FOR Mantua AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.

12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)

13. SOURCE OF DATA B. Beahan

14. DATA OBTAINED BY B. Beahan Date 9-2-87

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc.
7 Edgewater Place
Norwalk, CT 16855

29, 19. 863.
2919287

DRILL MASTER: DALE NELSON

PAGE OF

| DESCRIPTION | THICKNESS
(In Ft) | DEPTH | OWNER: |
|--|----------------------|-------|---|
| Asphalt | .33 | 0-.33 | Hecon Facility
LOCATION: Eatontown, NJ |
| Tannish brown fine to
Medium sand, some coarse
sand, few small pebbles | 6.67 | .33-7 | |
| Lighter brown fine to
medium sand, some coarse
sand, few small pebbles | 3 | 7-10 | WELL NO: 12A |
| Fuel odor | - | 22 | DATE COMPLETED: 8-24-85 |
| Green fine to medium
sand | 30 | 10-40 | DRILLING METHOD: Hollow Stem Auger |
| | | | SAMPLE METHOD: Cuttings |
| | | | SAMPLES
EXAMINED BY: B. Beahan |
| | | | REFERENCE
POINT: Top of PVC casing |
| | | | ELEVATION
OF R. P.: 106.32 (Assumed Datum) |
| | | | CASING: N/A |
| | | | 20' solid PVC
SCREEN TYPE: 20' slotted PVC |
| | | | DIAMETER: 12.75 inch |
| | | | STATIC WATER
LEVEL: |

SEP 8 '87

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2919288

APPLICATION NO. _____

COUNTY Monmouth

29.13.8.63
2919288

WELL RECORD

1. OWNER Underwriters Adjusting Co ADDRESS PO Box 688, Eatontown, NJ
Owner's Well No. OW 13A SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION 15 Meridian Rd Eatontown NJ
3. DATE COMPLETED 8-24-85 DRILLER NERCCO
4. DIAMETER: Top 13 inches Bottom 13 inches TOTAL DEPTH 40 Feet
5. CASING: Type PVC Diameter 4 inches Length 20 Feet
6. SCREEN: Type PVC Size of Opening 10/20 Diameter 4 inches Length 20 Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation Vincenten
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST. Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Maintenance AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA B. Berhan
14. DATA OBTAINED BY B. Berhan Date 9-2-87

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

GEOLOGIST WELL LOG

New England Pollution Control Co., Inc.
7 Edgewater Place
Norwalk, CT 16855

29,13,863
2919288

DRILL MASTER: DALE NELSON

PAGE OF

| DESCRIPTION | THICKNESS
(In Ft) | DEPTH | OWNER: |
|--|----------------------|-------|---|
| Asphalt | .33 | 0-.33 | Hecon Facility
Eatontown, NJ |
| Tannish brown medium to
fine sand. | 6.67 | .33-7 | |
| Greenish brown medium
sand, some coarse sand | 8 | 7-15 | LOCATION: |
| Green medium, some
coarse, glauconitic
(sticky) sand (fuel odor at
22') | 16 | 15-31 | WELL NO: 13A |
| Tannish brown medium
sand, some clay | | 31-40 | DATE COMPLETED: 8-24-85 |
| | | | DRILLING METHOD: Hollow Stem Auger |
| | | | SAMPLE METHOD: Cuttings |
| | | | SAMPLES
EXAMINED BY: B. Beahan |
| | | | REFERENCE
POINT: Top of PVC casing |
| | | | ELEVATION
OF R. P.: 106.94 (Assumed Datum) |
| | | | CASING: N/A |
| | | | 20' solid PVC
20' slotted PVC |
| | | | SCREEN TYPE: |
| | | | DIAMETER: 4-inch |
| | | | STATIC WATER
LEVEL: |

WELL RECORD

Well Permit No. 29 19540
Atlas Sheet Coordinates 29 13 829

OWNER IDENTIFICATION - Owner WOLF PRESS/LINDA DALY
Address 1138 PINEBROOK ROAD
City TINTON FALLS (WR:4D) State NJ Zip Code _____

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Property: 1138 Pinebrook Road, Tinton Falls, NJ
County Cty: Monmouth Municipality TINTON FALLS BO Lot No. 8 Block No. 114

WELL USE WITHDRAWAL Status IN USE

WATER USE DOMESTIC Average 1,000 gals. daily Maximum 2,000 gals. daily

WELL CONSTRUCTION Date well completed COMPLETED: 87/11/25
BOREHOLE DIMENSIONS Depths: Total TD: 215 ft. Finished _____ ft.
Diameter: Top 8.5 in. Bottom _____ in.

Land Surface Elevation at well E: 40 ft. Elevation was determined using Topographic map
Casing Height (stick-up) above land surface 1.5 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | L: 200 | 4.0" | Sched 40 PVC |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | Top: 200 | 10' | 4.0" | Sched 40 PVC/.020 |
| Screen 2 | | 5' | 4.0" | Sched 40 PVC |
| Tail Piece | Top: 190 | 25' | 8.5" | .025 Blended |
| Gravel Pack | Surface | L: 190 | | 200 Mesh Bentonite |
| Grout | | | | |
| Grouting Method | | | | Pressure thru tremie pipe |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

Test Date: 87/11/25

RECORD OF TEST Test Date ____/____/____ Level: 154
Static water-level before pumping: 33 ft. below land surface. Water level _____ ft. below land surface after 1 hrs. of pumping.
Water level was measured using estimated Drawdown DD: 121 ft.
Discharge rate measured using measured container Discharge Rate: 60 gals. per min.
Well was pumped using Air Lift Specific Capacity: 0.5 gals. per min. per ft. of drawdown
Observed effects on nearby wells none
Water Quality (taste, odor, color, etc.) good

PERMANENT PUMPING EQUIPMENT Installed by PICKWICK WELL DRILL Pump Type Submersible
Mfrs. Name Gould/Red Jacket Model Model: 10EJ07422
CAPACITY: Pump delivers 12 gpm GPM at 40 PSI pressure.
POWER: 3/4 HP at 3450 RPM Power Source Electric
DEPTHS: Pump Set: 130 ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

PICKWICK WELL DRILLING

CONTRACTOR - Name of Drilling Contractor P.O. Box 6, Farmingdale, NJ 07727 (201 938 5300)

Address _____
City _____ State _____ Zip Code _____
Name of Driller David Primost M 1041 License No. _____
Norman Primost J 1040
Allen Primost J 1407

Signature of Contractor [Signature] Date 8/1/02/07

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29-19540
29:13:829

Aquifer/Geo. Fm. RMW

| | |
|---------|---|
| 0-35 | Med. light green-brown sand |
| 35-45 | Dark green sand with gray clay |
| 45-65 | Gray clay with dark green clay and gray sand |
| 65-95 | Dark green clay with black sand and gray silty clay |
| 95-115 | Gray silty clay with some gray sand |
| 115-170 | Gray clay with some shells and black sand |
| 170-175 | Gray clay with gray sand and a trace of green pebbles |
| 175-195 | Fine gray sand with some green pebbles |
| 195- | Silty gray sand and gray clay |

Date / / Thick. | Lith. | Fm. |[illegible]

Date ____/____/____

WELL RECORD

Well Permit No. 29 - 20079
Atlas Sheet Coordinates 29 : 13 : 942OWNER IDENTIFICATION - Owner Redacted - Privacy ActAddress 4 MEADOW LANE
City WEST LONG BRANCH State NJ Zip Code _____

WELL LOCATION - If not the same owner please give address. Owner's Well No. _____

Address West Long Branch
County Monmouth Municipality LONG VALLEY CTT Lot No. 50.02 Block No. 61WELL USE irrigation Status _____

WATER USE _____ Average _____ gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION
BOREHOLE DIMENSIONSDate well completed 8 / 13 / 88
Depths: Total 90 ft. Finished 90 ft.
Diameter: Top 8 in. Bottom 8 in.Land Surface Elevation at well 68 ft. Elevation was determined using topography map #29

Casing Height (stick-up) above land surface _____ ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | <u>70</u> | <u>4</u> | <u>Sch 40 PVC</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>70</u> | <u>15</u> | <u>4</u> | <u>.015 slot screen PVC</u> |
| Screen 2 | | <u>30</u> | | |
| Tail Piece | | <u>5</u> | <u>4</u> | |
| Gravel Pack | <u>60</u> | | <u>8</u> | |
| Grout | | <u>60</u> | | <u>hole plug</u> |
| Grouting Method | | | <u>drop</u> | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date 8 / 13 / 88
Static water-level before pumping 40 ft. below land surface. Water level 60 ft. below land surface after 1 hrs. of pumping.
Water level was measured using dropline/M-scope Drawdown 20 ft.
Discharge rate measured using bucket Discharge Rate 90 gals. per min.
Well was pumped using air Specific Capacity 4.50 gals. per min. per ft. of drawdown
Observed effects on nearby wells none
Water Quality (taste, odor, color, etc.) _____

PERMANENT PUMPING EQUIPMENT

Installed by David Van Brunt Jr. Pump Type Submersible
Mfrs. Name Red Jacket Model 7GC
CAPACITY: Pump delivers 25 GPM at 40 PSI pressure.
POWER: 1 1/2 HP at 3450 RPM Power Source electricity
DEPTHS: Pump 65 ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

TIGER CONSTRUCTION CORP.

CONTRACTOR - Name of Drilling Contractor _____
Address 806 Hwy. 71
City Spring Lake Heights State N.J. Zip Code 07762
Name of Driller Dennis Buchannan License No. J1393

Signature of Contractor

Tiger ConstructionDate 12 / 29 / 88

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 21634
Atlas Sheet Coordinates 29 : 13 : 918

OWNER IDENTIFICATION - Owner Redacted - Privacy Act

Address 54 Emma Place
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. 1

Address Emma Place Eatontown
County Monmouth Municipality EATONTOWN BORO Lot No. 13 Block No. 97

WELL USE (IRRIGATION) Withdrawal Status IN USE

WATER USE IRRIGATION Average 400 gals. daily Maximum 400 gals. daily

WELL CONSTRUCTION
BOREHOLE DIMENSIONS

Date well completed Oct / 29 / 88
Depths: Total 238 ft. Finished 238 ft.
Diameter: Top 8 in. Bottom 8 in.

Land Surface Elevation at well 97 ft. Elevation was determined using Bench Mark
Casing Height (stick-up) above land surface 1 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------------|-------------------|---|
| Casing 1 | | | | |
| Casing 2 | | | | |
| Casing 3 | | <u>208'</u> | <u>4"</u> | <u>Sch #40 PVC</u> |
| Screen 1 | | <u>30'</u> | <u>4"</u> | <u>Sch #40 PVC X 15 slot</u> |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | | <u>30'</u> | <u>Ø</u> | <u>#2 Sand</u> |
| Grout | | <u>50</u> | | <u>Bentonite</u> |
| Grouting Method | | <u>pressure Grout</u> | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date Oct / 29 / 88
Static water-level before pumping 48' ft. below land surface. Water level 58' ft. below land surface after 2 hrs. of pumping.
Water level was measured using Bailer Line Drawdown 10 ft.
Discharge rate measured using 5 GAL. PAIL Discharge Rate 30 gals. per min.
Well was pumped using Submersible Specific Capacity 3 gals. per min. per ft. of drawdown
Observed effects on nearby wells none
Water Quality (taste, odor, color, etc.) Good

PERMANENT PUMPING EQUIPMENT

Installed by Jonas Endreson Pump Type Submersible
Mfrs. Name Red-Jacket Model 22 gpm
CAPACITY: Pump delivers 22 GPM at 40 PSI pressure.
POWER: 1 HP at 3450 RPM Power Source Electric
DEPTHS: Pump 100' ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor

Address 400 3rd Parkway
City Iron River State NJ Zip Code 08753
Name of Driller Jonas Endreson License No. 1138

Signature of Contractor Jonas Endreson Date Oct / 29 / 88

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 21634
29.13.918

Aquifer/Geo. Fm. Mt. Laurel

Completed by _____
Date ____/____/____

LOG

0-10' Sc
10-13' sp
13-15' shell
15-30'
30-45' light cedar shell w/ Fine sand
45-75' DARK cedar shell with Fine
75-90' Sand
90-115' shell with fine sand
115-120' sp/sm/ml
120-195' OL with some shell
195-204' OL/OLH
204-210' shell with fine sand
210-238' sp/sm pepper sand &
shell

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

Date / /

WELL RECORD

Well Permit No. 29 21698
Atlas Sheet Coordinates 29 : 13 : 587

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner Redacted - Privacy Act
Address 483 Tinton Ave.
City Tinton Falls State NJ Zip Code _____WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address Same As Above
County Monmouth Municipality Tinton Falls Lot No. 2-01 Block No. 55WELL USE Withdrawal Status In UseWATER USE Domestic Average 2000 gals. daily Maximum 4000 gals. dailyWELL CONSTRUCTION Date well completed 88 / 11 / 11
BOREHOLE DIMENSIONS Depths: Total 186 ft. Finished _____ ft.
Diameter: Top 8.5 in. Bottom _____ in.Land Surface Elevation at well 55 ft. Elevation was determined using Topographic Map
Casing Height (stick-up) above land surface 1.5 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------------------|-----------------|-------------------|---|
| Casing 1 | | <u>171</u> | <u>4.0</u> | <u>Schedule 40 PVC</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>171</u> | <u>10</u> | <u>4</u> | <u>Schedule 40 PVC/.020</u> |
| Screen 2 | | | | |
| Tail Piece | | <u>5</u> | <u>4</u> | |
| Gravel Pack | <u>161</u> | <u>25</u> | <u>8.5</u> | <u>.025 Blended</u> |
| Grout | <u>Surface</u> | <u>161</u> | | <u>200 mesh Bentonite</u> |
| Grouting Method | <u>Pressure, Thru Tremie Pipe</u> | | | |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date 88 / 11 / 11
Static water-level before pumping 32 ft. below land surface. Water level 141 ft. below land surface after 1 hrs. of pumping.
Water level was measured using Estimated Drawdown 109 ft.
Discharge rate measured using Measured Container Discharge Rate 32 gals. per min.
Well was pumped using Air Lift Specific Capacity 0.3 gals. per min. per ft. of drawdown
Observed effects on nearby wells None
Water Quality (taste, odor, color, etc.) GoodPERMANENT PUMPING EQUIPMENT Installed by PICKWICK WELL DRLG Pump Type Submersible
Mfrs. Name Gould Model 10EJ07
CAPACITY: Pump delivers 12 GPM at 40 PSI pressure.
POWER: 3/4 HP at 3450 RPM Power Source Electric
DEPTHS: Pump 100 ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING
Address P.O. Box 6, Farmingdale, NJ 07727 (201) 938 5300
City David Primost NJ044 State _____ Zip Code _____
Name of Driller Norman Primost NJ040 License No. _____
Allen Primost J1407Signature of Contractor [Signature] Date 8/12/08

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Well Permit No. 29 - 21698

29. 13. 587

DEP USE ONLY

Drilling Method mud rotary

Type of Rig T.H. DRIVE

Aquifer/Geo. Fm. K M W

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Em. Code _____

Completed by _____

Date ____/____/____

Thick. Lith. Em.

LOG

0-10 Gravel
10-22 Silty Green Clay w/ Fine green Sand
22-25 Coarse green Sand
25-70 med + Coarse Silty green Sand /
Some Silty green Clay / Some
black Sand
70-135 Grey Silty Clay / Some Fine grey
Silty Sand / Few shells
115-135 med Fine grey Sand / Some
green pebbles
135-180 Fine grey Sand / shells /
Some pebbles / trace
Lignite

GWP1 No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude ° ' "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle

Drainage Basin Code

County/Municipality Code

OTHER FILES: ☐ Lithologic Log ☐ Samples Available

☐ Aquifer Test ☐ Water Level Data

OTHER FILES: ☐ Lithologic Log
☐ Geophysical Logs

☐ Samples Available
☐ Water Chemistry

☐ Aquifer Test

☐ Pollution Cas

☐ Water Level Data

Checked by _____

Date / /

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2921967-1
APPLICATION NO. _____
COUNTY _____
COORD. 29.13.8.19
29-21967

WELL RECORD

1. OWNER Starola Realty ADDRESS _____
Owner's Well No. W-2 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Intersection Hope Rd + RT. 36, Tinton Falls, NJ
3. DATE COMPLETED 4/10/89 DRILLER Warren George Inc.
4. DIAMETER: Top _____ inches Bottom _____ inches TOTAL DEPTH _____ Feet
5. CASING: Type _____ Diameter _____ inches Length _____ Feet
6. SCREEN: Type _____ Size of Opening _____ Diameter _____ inches Length _____ Feet
Range in Depth { Top _____ Feet
Bottom _____ Feet
Geologic Formation See Attached log
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfr. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR _____ AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Boring log
14. DATA OBTAINED BY Warren George Inc. Date 5/9/89

WELL SEALED

1/8/90

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

WARREN GEORGE, INC.

FOOT OF JERSEY AVENUE
P. O. BOX 413
JERSEY CITY, N.J. 07303

29-13.819
29-21967

TEST BORINGS

| Project <u>Schmiedt Contracting DOT Wells, Rt 18 Tinton Falls, N.J.</u> | | | | | | | | | |
|---|-------------------------------------|---------------|----------------------------|------------------------------------|---------------|-------------------|---------------|-----------------|---------|
| Boring No. <u>44-2</u> Job No. _____ Rig No. _____ Date <u>4/10/59</u> 19 _____ | | | | | | | | | |
| BORING LOG | | | SPOON SAMPLE AND CORE DATA | | | | | BLOWS ON CASING | |
| DEPTH FROM TO | DESCRIPTION OF MATERIAL | SAMPLE NUMBER | DEPTH FROM - TO | BLOWS PER FT. CORE RECOV'D. INCHES | DmRY W-WASH | UNDISTURBED R-ROD | Y-TRAP C-CORE | 0-1 | 59-60 |
| 0' / 1' | Black silt | 1 | 0 1/2 | | 3-2-3-4 | | | 1-2 | 60-61 |
| | | 2 | 5/7 | | 2-3-3-4 | | | 2-3 | 61-62 |
| 1' / 3' | YELLOW-BL. F-m. SAND. | 3 | 10 1/2 | | 2-3-4-5 | | | 3-4 | 62-63 |
| | | 4 | 15 1/2 | | 3-4-7-4 | | | 4-5 | 63-64 |
| 3' / 19' | Green m.p. SAND. to silt | 5 | 18 1/2 | | 23-37-105 1/2 | | | 5-6 | 64-65 |
| | | | | | | | | 6-7 | 65-66 |
| | | | | | | | | 7-8 | 66-67 |
| | | | | | | | | 8-9 | 67-68 |
| | | | | | | | | 9-10 | 68-69 |
| 19' / 19 1/2' | Green GLAUCOUS. TIE SANDS + SHALLS. | | | | | | | 10-11 | 69-70 |
| | | | | | | | | 11-12 | 70-71 |
| | | | | | | | | 12-13 | 71-72 |
| | | | | | | | | 13-14 | 72-73 |
| | | | | | | | | 14-15 | 73-74 |
| | | | | | | | | 15-16 | 74-75 |
| | | | | | | | | 16-17 | 75-76 |
| | | | | | | | | 17-18 | 76-77 |
| | | | | | | | | 18-19 | 77-78 |
| | | | | | | | | 19-20 | 78-79 |
| | | | | | | | | 20-21 | 79-80 |
| | | | | | | | | 21-22 | 80-81 |
| | | | | | | | | 22-23 | 81-82 |
| | | | | | | | | 23-24 | 82-83 |
| | | | | | | | | 24-25 | 83-84 |
| | | | | | | | | 25-26 | 84-85 |
| | | | | | | | | 26-27 | 85-86 |
| | | | | | | | | 27-28 | 86-87 |
| | | | | | | | | 28-29 | 87-88 |
| | | | | | | | | 29-30 | 88-89 |
| | | | | | | | | 30-31 | 89-90 |
| | | | | | | | | 31-32 | 90-91 |
| | | | | | | | | 32-33 | 91-92 |
| | | | | | | | | 33-34 | 92-93 |
| | | | | | | | | 34-35 | 93-94 |
| | | | | | | | | 35-36 | 94-95 |
| | | | | | | | | 36-37 | 95-96 |
| | | | | | | | | 37-38 | 96-97 |
| | | | | | | | | 38-39 | 97-98 |
| | | | | | | | | 39-40 | 98-99 |
| | | | | | | | | 40-41 | 99-100 |
| | | | | | | | | 41-42 | 100-101 |
| | | | | | | | | 42-43 | 101-102 |
| | | | | | | | | 43-44 | 102-103 |
| | | | | | | | | 44-45 | 103-104 |
| | | | | | | | | 45-46 | 104-105 |
| | | | | | | | | 46-47 | 105-106 |
| | | | | | | | | 47-48 | 106-107 |
| | | | | | | | | 48-49 | 107-108 |
| | | | | | | | | 49-50 | 108-109 |
| 2' 6" / 3' | CEMENT GROUT | | | | | | | | |
| 2' 6" / 3' | BENTONITE SEAL | | | | | | | | |
| 3' / | SAND PACK | | | | | | | | |

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2922685.6
APPLICATION NO. _____
COUNTY _____
COORD. 29.13.8.24 E

WELL RECORD

1. OWNER Starola Realty ADDRESS _____
Owner's Well No. W-1 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Intersection Hope Rd + Rt. 36, Tinton Falls, N.J.
3. DATE COMPLETED 5/2/89 DRILLER Wane George Inc.
4. DIAMETER: Top _____ inches Bottom _____ inches TOTAL DEPTH _____ Feet
5. CASING: Type _____ Diameter _____ inches Length _____ Feet
6. SCREEN: Type _____ Size of Opening _____ Diameter _____ inches Length _____ Feet
Range in Depth { Top _____ Feet
Bottom _____ Feet
Geologic Formation See Attached Log
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR _____ AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Boring Log
14. DATA OBTAINED BY Wane George Inc. Date 5/9/89

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

N. Y. TEL. 267-3215

WARREN GEORGE, INC.

FOOT OF JERSEY AVENUE
P. O. BOX 413
JERSEY CITY, N.J. 07303

N. J. TEL. (201) 433-9797

29.13. 824
29-22685

TEST BORINGS

| Project <u>Sutton Construction - Tinton Falls.</u> | | | | | | | | | |
|--|--------------------------------------|----------------------------|--------------------|--|---|----------------------|-----------------|----------|---------|
| Boring No. <u>W-1</u> | | Job No. _____ | | Hlg No. _____ | | Date <u>5/2/89</u> | | 19 _____ | |
| BORING LOG | | SPOON SAMPLE AND CORE DATA | | | | | BLOWS ON CASING | | |
| DEPTH
FROM TO | DESCRIPTION
OF MATERIAL | SAMPLE
NUMBER | DEPTH
FROM - TO | BLOWS
PER FT.
CORE
RECOV'D.
INCHES | DRY
W-WASH
RECOV'D. - NO. PFS.
Remarks | UNDISTURBED
R-ROD | TRAP
C-CORE | 0-1 | 59-60 |
| 0
2' | WHITE SAND
+ Top Soil | 1 | 0 1/2 | | 1-0-1-1 | | | 1-2 | 60-61 |
| | | 2 | 2 1/5 | | 2-2-12-14 | | | 2-3 | 61-62 |
| 2'
8' | Drum P. SAND.
little SILT | 3 | 8/10 | | 3-12-14-14 | | | 3-4 | 62-63 |
| | | 4 | 13/15 | | | | | 4-5 | 63-64 |
| 8'
23' | Drum. M-P.
SAND, TW. SILT | 5 | 18/20 | | | | | 5-6 | 64-65 |
| | | | | | | | | 6-7 | 65-66 |
| | COB
C 23' | | | | | | | 7-8 | 66-67 |
| | | | | | | | | 8-9 | 67-68 |
| | | | | | | | | 9-10 | 68-69 |
| | | | | | | | | 10-11 | 69-70 |
| | | | | | | | | 11-12 | 70-71 |
| | | | | | | | | 12-13 | 71-72 |
| | | | | | | | | 13-14 | 72-73 |
| | | | | | | | | 14-15 | 73-74 |
| | | | | | | | | 15-16 | 74-75 |
| | | | | | | | | 16-17 | 75-76 |
| | | | | | | | | 17-18 | 76-77 |
| | | | | | | | | 18-19 | 77-78 |
| | | | | | | | | 19-20 | 78-79 |
| | | | | | | | | 20-21 | 79-80 |
| | | | | | | | | 21-22 | 80-81 |
| | | | | | | | | 22-23 | 81-82 |
| | | | | | | | | 23-24 | 82-83 |
| | | | | | | | | 24-25 | 83-84 |
| 26'
3' | 2" PVC RISER | | | | | | | 25-26 | 84-85 |
| | | | | | | | | 26-27 | 85-86 |
| | | | | | | | | 27-28 | 86-87 |
| | | | | | | | | 28-29 | 87-88 |
| 3'
23' | 2" PVC SULKER | | | | | | | 29-30 | 88-89 |
| | | | | | | | | 30-31 | 89-90 |
| | | | | | | | | 31-32 | 90-91 |
| | | | | | | | | 32-33 | 91-92 |
| | 1-10" ABOVE GROUND
Locking CAP. | | | | | | | 33-34 | 92-93 |
| | | | | | | | | 34-35 | 93-94 |
| | | | | | | | | 35-36 | 94-95 |
| | | | | | | | | 36-37 | 95-96 |
| | 1-BAGS SAND.
1-BAG NET PELLETS. | | | | | | | 37-38 | 96-97 |
| | | | | | | | | 38-39 | 97-98 |
| | | | | | | | | 39-40 | 98-99 |
| | 1-BAG CEMENT | | | | | | | 40-41 | 99-100 |
| | | | | | | | | 41-42 | 100-101 |
| | | | | | | | | 42-43 | 101-102 |
| | | | | | | | | 43-44 | 102-103 |
| | | | | | | | | 44-45 | 103-104 |
| | 1 1/2 hr. well develop-
ment TIME | | | | | | | 45-46 | 104-105 |
| | | | | | | | | 46-47 | 105-106 |
| | | | | | | | | 47-48 | 106-107 |
| | | | | | | | | 48-49 | 107-108 |
| | 1 1/2 hr. well develop-
ment | | | | | | | 49-50 | 108-109 |
| | | | | | | | | 50-51 | 109-110 |

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 2922686-4
APPLICATION NO. _____
COUNTY _____
COORD. 29.13.8.24

E

WELL RECORD

1. OWNER Starvela Realty ADDRESS _____
Owner's Well No. W-3 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Intersection Hope Rd. & Rt. 36, Tinton Falls, N.J.
3. DATE COMPLETED 5/1/89 DRILLER Warren Hergelme
4. DIAMETER: Top _____ inches Bottom _____ inches TOTAL DEPTH _____ Feet
5. CASING: Type _____ Diameter _____ inches Length _____ Feet
6. SCREEN: Type _____ Size of Opening _____ Diameter _____ inches Length _____ Feet
Range in Depth { Top _____ Feet
Bottom _____ Feet
Geologic Formation See Attached Log
Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfr. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR _____ AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Boring Log
14. DATA OBTAINED BY Warren Hergelme Date 5/9/89

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

N. Y. TEL. 267-3215

WARREN GEORGE, INC.

FOOT OF JERSEY AVENUE

P. O. BOX 413

JERSEY CITY, N.J. 07303

N. J. TEL. (201) 433-8797

29.13.824
2922687

TEST BORINGS

| Project <u>SHAKING CONSTRUCTION, TINTON FALLS, N.J.</u> | | | | | | | | | |
|---|------------------------------|----------------------------|--------------------|--|--|--|-----------------|---------|--|
| Boring No. <u>4-3</u> Job No. _____ Rig No. _____ Date <u>5/1/89</u> 19 _____ | | | | | | | | | |
| BORING LOG | | SPOON SAMPLE AND CORE DATA | | | | | BLOWS ON CASING | | |
| DEPTH
FROM TO | DESCRIPTION
OF MATERIAL | SAMPLE
NUMBER | DEPTH
FROM - TO | BLOWS
PER FT.
CORE
RECOVER'D.
INCHES | CHRY
WASH
UNDISTURBED
R-ROD
T-TRAP
C-CORE | CORE RECOVER'D. -- NO. PFS.
Remarks * | 0-1 | 59-60 | |
| 0/2 | Qu. c-f Sand.
little SILT | 1 | 1/2 | | | 2-3-4-6 | 1-2 | 60-61 | |
| 2/13 | Qu. m-f Sand
no SILT | 2 | 3/5 | | | 4-6-7-9 | 2-3 | 61-62 | |
| 13/16 | Qu. m-f Sand.
no SILT | 3 | 7/10 | | | 4-6-8-9 | 3-4 | 62-63 | |
| | | 4 | 13/15 | | | 7-12-14-24 | 4-5 | 63-64 | |
| | | 5 | 18/20 | | | 7-6-12-16 | 5-6 | 64-65 | |
| | | | | | | | 6-7 | 65-66 | |
| | | | | | | | 7-8 | 66-67 | |
| | | | | | | | 8-9 | 67-68 | |
| | | | | | | | 9-10 | 68-69 | |
| | | | | | | | 10-11 | 69-70 | |
| | | | | | | | 11-12 | 70-71 | |
| | | | | | | | 12-13 | 71-72 | |
| | | | | | | | 13-14 | 72-73 | |
| | | | | | | | 14-15 | 73-74 | |
| | | | | | | | 15-16 | 74-75 | |
| | | | | | | | 16-17 | 75-76 | |
| | | | | | | | 17-18 | 76-77 | |
| | | | | | | | 18-19 | 77-78 | |
| | | | | | | | 19-20 | 78-79 | |
| | | | | | | | 20-21 | 79-80 | |
| | | | | | | | 21-22 | 80-81 | |
| | | | | | | | 22-23 | 81-82 | |
| | | | | | | | 23-24 | 82-83 | |
| | | | | | | | 24-25 | 83-84 | |
| +2/2'6" | 2" PVC Riser | | | | | | 25-26 | 84-85 | |
| 2'6"/18' | 2" PVC SCREEN | | | | | | 26-27 | 85-86 | |
| | | | | | | | 27-28 | 86-87 | |
| | | | | | | | 28-29 | 87-88 | |
| | | | | | | | 29-30 | 88-89 | |
| | | | | | | | 30-31 | 89-90 | |
| | | | | | | | 31-32 | 90-91 | |
| | | | | | | | 32-33 | 91-92 | |
| | | | | | | | 33-34 | 92-93 | |
| | | | | | | | 34-35 | 93-94 | |
| | | | | | | | 35-36 | 94-95 | |
| | | | | | | | 36-37 | 95-96 | |
| | | | | | | | 37-38 | 96-97 | |
| | | | | | | | 38-39 | 97-98 | |
| | | | | | | | 39-40 | 98-99 | |
| | | | | | | | 40-41 | 99-100 | |
| | | | | | | | 41-42 | 100-101 | |
| | | | | | | | 42-43 | 101-102 | |
| | | | | | | | 43-44 | 102-103 | |
| | | | | | | | 44-45 | 103-104 | |
| | | | | | | | 45-46 | 104-105 | |
| | | | | | | | 46-47 | 105-106 | |
| | | | | | | | 47-48 | 106-107 | |
| | | | | | | | 48-49 | 107-108 | |
| | | | | | | | 49-50 | 108-109 | |
| | | | | | | | 50-51 | 109-110 | |

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

FERMIT NO. 29-22982
APPLICATION NO. _____
COUNTY MONMOUTH
COORD. 29.13.859

WELL RECORD

1. OWNER R.M. Shoemaker Co. ADDRESS 186 MONTGOMERY KNOLL, SKILLMAN, N.J. 08538
Owner's Well No. #5 SURFACE ELEVATION 90 Feet
(Above mean sea level)
2. LOCATION UNITED PAPER SERVICE FACILITY, 750 HOPE ROAD, TINTON PARK, NJ
3. DATE COMPLETED 8/07/11 DRILLER Pickwick Well
4. DIAMETER: Top 8 1/2 inches Bottom 8 1/2 inches TOTAL DEPTH 37'-0" Feet
5. CASING: Type PVC Sched 40 Diameter 4.0" Inches Length 17'-0" Feet
6. SCREEN: Type PVC Sched 40 Size of Opening .020 Diameter 4.0" Inches Length 20'-0" Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation KRB
- Tail Piece: Diameter _____ Inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date 7-11-89 Yield 10 Gallons per minute
Static water level before pumping 21'-7" Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type None Mfrs. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ Inches
10. USED FOR MONITOR PURPOSES ONLY AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG _____ Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA Driller
14. DATA OBTAINED BY Driller Date 8/08/04

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

Log

29, 13.859
2922982

0-37'

(UNIFORM THRU ENTIRE INTERVAL)
MEDIUM & COARSE GREEN SAND

SPLIT SPOON SAMPLES @ 5' INTERVALS.

SAMPLES HAVE BEEN RETAINED.

Dr. David

Soil Samples Returned by Mr. David Froelich
Dr. FORTEN RESOURCES

NJPDES PERMIT # NJ0051659

DEPT. ENV. PROTECTION
DIV. OF WATER RESOURCES
WATER ALLOCATION

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

PERMIT NO. 29-23160
APPLICATION NO. _____
COUNTY _____
COORD. 29.13.819

WELL RECORD

1. OWNER Strand's Realty ADDRESS _____
Owner's Well No. MW-2 SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Chater Hope Rd + Rt. 36
3. DATE COMPLETED 7-5-89 DRILLER Richard Gregory
4. DIAMETER: Top 6" inches Bottom 6" inches TOTAL DEPTH 19'6" Feet
5. CASING: Type PVC Diameter 2" inches Length 6'6" Feet
6. SCREEN: Type PVC Size of Opening _____ Diameter 2" inches Length 15' Feet

Range in Depth { Top _____ Feet
Bottom _____ Feet
Geologic Formation _____

Tail Piece: Diameter _____ inches Length _____ Feet

7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface

Water rises to _____ Feet above surface

8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute

Static water level before pumping _____ Feet below surface

Pumping level _____ feet below surface after _____ hours pumping

Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown

How pumped _____ How measured _____

Observed effect on nearby wells _____

9. PERMANENT PUMPING EQUIPMENT:

Type _____ Mfrs. Name _____

Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____

Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet

Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches

10. USED FOR Monitoring AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily

11. QUALITY OF WATER _____ Sample: Yes _____ No _____

Taste _____ Odor _____ Color _____ Temp. _____ °F.

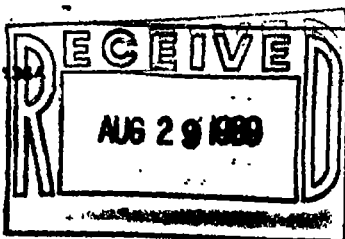
12. LOG _____ Are samples available? _____
(Give details on log of sheet or on separate sheet. If electric log was made, please furnish copy.)

13. SOURCE OF DATA Boring log

14. DATA OBTAINED BY Warner George & Co. Date 4-2-90

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

DWR
1/86



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

WELL RECORD

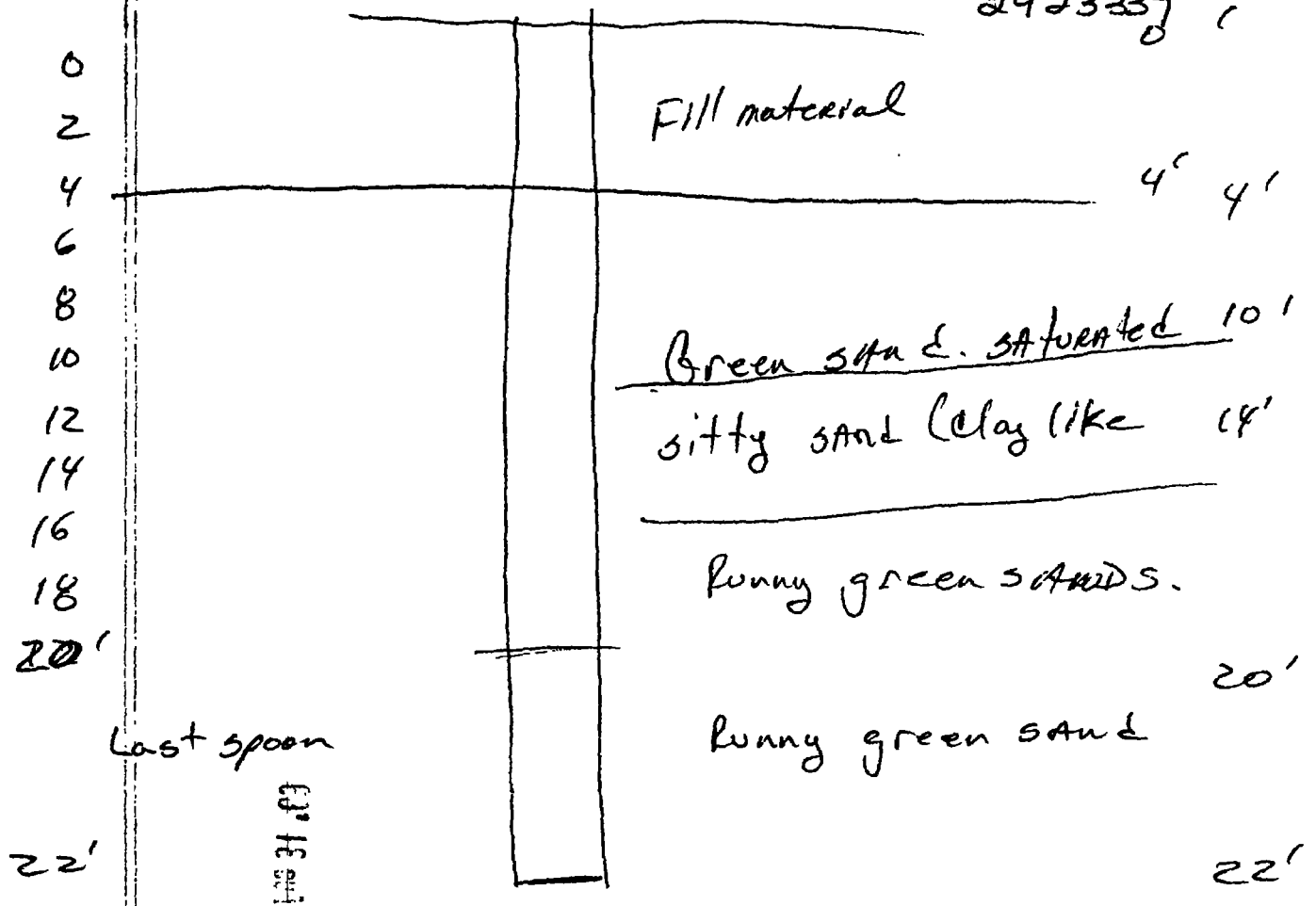
PERMIT NO. 29-23339
APPLICATION NO. _____
COUNTY _____
COORD. 29-13-864

E

1. OWNER Jack Birnberg & Assoc. ADDRESS 61 Industrial Highway West
Owner's Well No. B-1-B SURFACE ELEVATION _____ Feet
(Above mean sea level)
2. LOCATION Edgewater NJ
3. DATE COMPLETED 8-24 DRILLER John Mathes & Assoc.
4. DIAMETER: Top 8 inches Bottom 8 inches TOTAL DEPTH 20 Feet
5. CASING: Type _____ Diameter _____ inches Length _____ Feet
6. SCREEN: Type _____ Size of Opening _____ Diameter _____ inches Length _____ Feet
- Range in Depth { Top _____ Feet
Bottom _____ Feet
- Geologic Formation _____
- Tail Piece: Diameter _____ inches Length _____ Feet
7. WELL FLOWS NATURALLY _____ Gallons per minute at _____ Feet above surface
Water rises to _____ Feet above surface
8. RECORD OF TEST: Date _____ Yield _____ Gallons per minute
Static water level before pumping _____ Feet below surface
Pumping level _____ feet below surface after _____ hours pumping
Drawdown _____ Feet Specific Capacity _____ Gals. per min. per ft. of drawdown
How pumped _____ How measured _____
Observed effect on nearby wells _____
9. PERMANENT PUMPING EQUIPMENT:
Type _____ Mfr. Name _____
Capacity _____ G.P.M. How Driven _____ H.P. _____ R.P.M. _____
Depth of Pump in well _____ Feet Depth of Footpiece in well _____ Feet
Depth of Air Line in well _____ Feet Type of Meter on Pump _____ Size _____ inches
10. USED FOR Test Borings AMOUNT { Average _____ Gallons Daily
Maximum _____ Gallons Daily
11. QUALITY OF WATER _____ Sample: Yes _____ No _____
Taste _____ Odor _____ Color _____ Temp. _____ °F.
12. LOG Attached Are samples available? _____
(Give details on back of sheet or on separate sheet. If electric log was made, please furnish copy.)
13. SOURCE OF DATA John Mathes & Assoc. Inc.
14. DATA OBTAINED BY Karl H. Hiltner Date _____

(NOTE: Use other side of this sheet for additional information such as log of materials penetrated, analysis of the water, sketch map, sketch of special casing arrangements, etc.)

29.13.864
292339



4 1/4 hollow stem Augers.

20 Ft. in depth

grouting From Botton to top through Augers
with Irony Pipe.

20' 22' Spoon hole collapsed due to
Runny sand.

E

MONITORING WELL RECORD

Well Permit No. 29 - 23916
Atlas Sheet Coordinates 29 : 13 : 852

OWNER IDENTIFICATION - Owner Redacted - Privacy Act ARTIS CORP
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MULLI
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4/10/80
Regulatory Program Requiring Well ECRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 9' ft.

Well finished to 9' ft.

Borehole diameter:

Top 8 3/4 in.

Bottom 8 3/4 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 3' ft.

Water level was measured using M-scope

Well was developed for 1 hours at 2 gpm

Method of development Bailed

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid None Type of Rig B57

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 2' | 4" | pvc sch 40 |
| Outer Casing
(Not Protective Casing) | none | | | |
| Screen
(Note slot size) | 2' | 9' | 4" | pvc sch 40.020 |
| Tail Piece | none | | | |
| Gravel Pack | 1' | 9' | | #1 Morie |
| Annular Seal/Grout | 0' | 1' | | Cement & Ben |
| Method of Grouting | neat cement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0'-9' Tan f Green Medr Fine
sand

0' 15'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

8/15/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 21 - 23917
Atlas Sheet Coordinates 29 : 13 : 852



OWNER IDENTIFICATION - Owner ARTIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW2
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4/10/90
Regulatory Program Requiring Well RCRA Case I.D. # 88980 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTF Tele. # 887-0300

WELL CONSTRUCTION

Total depth drilled 13' ft.

Well finished to 13' ft.

Borehole diameter:
Top 8 3/4 in.
Bottom 8 3/4 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 3' ft.

Water level was measured using M-Scope

Well was developed for 1 hours at 2 gpm

Method of development Bailing

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid None Type of Rig B57

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLINAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 2' | 4" | pvc sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 12' | 4" | pvc sch 40 .020 |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12' | | #10/12 |
| Annular Seal/Grout | 0' | 1' | | Concrete + Ben |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0-13' Tan + olive sand

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Michael Kavlinas Date 8/17/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

2

MONITORING WELL RECORD

Well Permit No. 29 - 23918

Atlas Sheet Coordinates 29 : 13 : 852

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARTIS CORP
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 3
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4/10/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 12' ft.

Well finished to 12' ft.

Borehole diameter
Top 8 3/4 in.
Bottom 8 3/4 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 3' ft.

Water level was measured using M-Scope
Well was developed for 1 hours at 3 gpm

Method of development Bailing

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid none Type of Rig B 57

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 2' | 4" | pvc sch 40 |
| Outer Casing
(Not Protective Casing) | 1 | | | |
| Screen
(Note slot size) | 2' | 12' | 4" | pvc sch 40.020 |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12' | | #1 |
| Annular Seal/Grout | 0' | 1' | | Benfonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown Green & Black
Med silty sand

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 23919
Atlas Sheet Coordinates 29 : 13 : 853

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 4
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4/10/90
Regulatory Program Requiring Well ECRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 12' ft.

Well finished to 12' ft.

Borehole diameter:

Top 8 3/4 in.

Bottom 8 3/4 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 3' ft.

Water level was measured using M-Scope

Well was developed for 1 hours at 3 gpm

Method of development Bailed

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid None Type of Rig B-57

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None D C B A)

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 2' | 4" | pvc sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 12' | 4" | pvc sch 40. 0.20 |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12' | | #2 |
| Annular Seal/Grout | 0' | 1' | | Bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown Green + olive coarse
sand
0 - 12'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

8/22/90

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MONITORING WELL RECORD

Well Permit No. 29 - 23920
Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARTIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW5
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4/10/90
Regulatory Program Requiring Well BCRA Case I.D. # 88090 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 5870300

WELL CONSTRUCTION

Total depth drilled 12' ft.

Well finished to 12' ft.

Borehole diameter:
Top 8 3/4 in.

Bottom 8 3/4 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 3' ft.

Water level was measured using M-Scope

Well was developed for 1 hours at 3 gpm

Method of development Bailing

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid None Type of Rig B57

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLINAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 2' | 4" | pvc sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 12' | 4" | pvc sch 40 .020 |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12' | | #1 |
| Annular Seal/Grout | 0' | 1' | | Benbrite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Green + olive med sand
0-12'

02° TS

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

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MONITORING WELL RECORD

Well Permit No. 29 - 23921

Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.

Address 100 CRESCENT COURT, STE 1600

City DALLAS

State TX

Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. MW 6

County _____ Municipality TINTON FALLS BO

Lot No. 21.02 Block No. 114.01

Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING

Date well completed 4/12/90

Regulatory Program Requiring Well RCRA

Case I.D. # 88990 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI

Tel. # 587-0300

WELL CONSTRUCTION

Total depth drilled 12' ft.

Well finished to 12' ft.

Borehole diameter:

Top 8 3/4 in.

Bottom 8 3/4 in.

Well was finished: ☐ above grade

☒ flush mounted

If finished above grade, casing

height (stick up) above land

surface 0 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 4' ft.

Water level was measured using M-scope

Well was developed for 1 hours at 3 gpm

Method of development Bailed

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid None Type of Rig BS7

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328 MICHAEL KAVLINAS

Name of Drilling Company GT Drilling

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 2' | 4" | pvc sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 12' | 4" | pvc sch 40.020 |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12' | | #1 |
| Annular Seal/Grout | 0' | 1' | | Bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

olive + Brown med sand
0-12

62° E 28° S

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

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MONITORING WELL RECORD

Well Permit No. 29 - 23922
Atlas Sheet Coordinates 29 : 13 : 852 ☐

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-A
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/11/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTL Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom 4" in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas 02° E

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Light Brown silty sand
0'-2'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

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DWR-138 M
6/89

New Jersey Department of Environmental Protection
Division of Water Resources

MONITORING WELL RECORD

Well Permit No. 29 - 23923

Atlas Sheet Coordinates 29 : 13 : 852

OWNER IDENTIFICATION - Owner ARIS CORP.

Address 100 CRESCENT COURT, STE 1600

City DALLAS

State TX

Zip Code

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. SB-B

County Municipality TINTON FALLS BO

Lot No. 21.02 Block No. 114.01

Address

TYPE OF WELL (as per Well Permit Categories) BORING

Date well completed 4/12/90

Regulatory Program Requiring Well RCRA

Case I.D. # 88000 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI

Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top _____ in.

Bottom _____ in.

Well was finished: ☐ above grade

☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Green silty sand w-pebbles
0-2

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

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WELREC 107 1142

2

MONITORING WELL RECORD

Well Permit No. 29 - 23924
Atlas Sheet Coordinates 29 : 13 : 852 ☐

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner IRIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SBC
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/11/90
Regulatory Program Requiring Well RCRA Case I.D. # 88980 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) BTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2.5" ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom 4" in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Karlunas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MDP328

Name of Drilling Company MICHAEL KAVLUNAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)

Pebbles Brown med
silty sand
0-2'5"

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Karlunas

Date

4/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

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MONITORING WELL RECORD

Well Permit No. 29 - 23925
Atlas Sheet Coordinates 29 : 13 : 853



OWNER IDENTIFICATION - Owner

Redacted - Privacy Act

'ARTIS CORP.

Address 100 CRESCENT COURT, STE 1600

City DALLAS

State TX

Zip Code

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. S.B.D

County

Municipality

TINTON FALLS BO

Lot No.

21.02

Block No.

114.01

Address

TYPE OF WELL (as per Well Permit Categories)

BORING

Date well completed

4/11/90

Regulatory Program Requiring Well RCRA

Case I.D. #

88990 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

GTI

Tele. #

587-0300

WELL CONSTRUCTION

Total depth drilled 2'5" ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom _____ in.

Well was finished: ☐ above grade

☐ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLINAS

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

Brown med Fine Sand
0-2'5"

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

4

MONITORING WELL RECORD

Well Permit No. 29 - 23928
Atlas Sheet Coordinates 29 : 13 : 853



OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-E
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2'5" ft.

Well finished to _____ ft.

Borehole diameter:

Top 4 in.

Bottom _____ in.

Well was finished: ☐ above grade

☐ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Karlunas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KARLUNAS

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (Inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Light Brown silty sand
0-2'-5'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Karlunas

Date

7/31/90

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MONITORING WELL RECORD

Well Permit No. 29 - 23927
Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner RIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. S.B.F.
County _____ Municipality TINTON FALLS BO Lot No. 21-02 Block No. 114-01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top _____ in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlunas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLUNAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Light Brown silty sand
0-2'

0.2' E

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlunas

Date

7/31/90

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4

MONITORING WELL RECORD

Well Permit No. 29 - 23928
Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner 'ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. 586
County _____ Municipality TINTON FALLS BO Lot No. 21-02 Block No. 114-01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/11/90
Regulatory Program Requiring Well ECRA Case I.D. # 88090 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter;
Top 4" in.
Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown Fine to Med Sand.
0'-2'

02" E sec.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

4

MONITORING WELL RECORD

Well Permit No. 29 - 23929
Atlas Sheet Coordinates 29 : 13 : 853

OWNER IDENTIFICATION - Owner Redacted - Privacy Act ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SBH
County _____ Municipality TINTON FALLS BO Lot No. 21-02 Block No. 114-01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:
Top 4" in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown + Black med sand
0'-2'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

4

MONITORING WELL RECORD

Well Permit No. 29 - 23930
Atlas Sheet Coordinates 29 : 13 : 853



Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SBI
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88090 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTT Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:
Top 4" in.
Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method _____

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☐ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS & SONS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Light Brown med sand
0-2'

0-2' E

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Michael Kavlonas Date 7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 23931

Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner

ARTS CORP

Address

100 CRESCENT COURT, STE 1600

City

DALLAS

State

TX

Zip Code

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. SBT

County

Municipality

TINTON FALLS BO

Lot No.

21.02

Block No.

114.01

Address

TYPE OF WELL (as per Well Permit Categories)

BORING

Date well completed

4/12/90

Regulatory Program Requiring Well

ECRA

Case I.D. #

88990 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

GTT

Tele. #

587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom _____ in.

Well was finished: ☐ above grade

☐ flush mounted

If finished above grade, casing

height (stick up) above land

surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLINAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

Light Brown s. lty sand
0'-2'

02

001

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

5

MONITORING WELL RECORD

Well Permit No. 29 - 23932

Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-K
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/11/90
Regulatory Program Requiring Well RCRA Case I.D. # 88090 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2.5" ft.

Well finished to _____ ft.

Borehole diameter:
Top 4" in.
Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☐ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown fine silty sand
0-2.5"

02° E

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

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5

MONITORING WELL RECORD

Well Permit No. 29 - 23833
Atlas Sheet Coordinates 29 : 13 : 853



Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARTS CORP
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB.L
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) G T I Tele. # 5870300

WELL CONSTRUCTION

Total depth drilled 4' ft.

Well finished to _____ ft.

Borehole diameter:
Top 4" in.
Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael KAVLINAS

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLINAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown + Tan Med sand w.
some silts
0-4'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

7/31/90

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MONITORING WELL RECORD

Well Permit No. 29 - 23934
Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARTS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SBM
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88090 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 5870300

WELL CONSTRUCTION

Total depth drilled 3' ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlanas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLANAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Tan + Brown
0'-3'

0' E

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlanas

Date

7/31/90

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5

MONITORING WELL RECORD

Well Permit No. 29 - 23935
Atlas Sheet Coordinates 29 : 13 : 853

☐

OWNER IDENTIFICATION - Owner

Redacted - Privacy Act

IRIS CORP.

Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. SB-N

County _____ Municipality TINTON FALLS DO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING

Date well completed 4/12/90

Regulatory Program Requiring Well RCRA

Case I.D. # 88990 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTT

Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2'5" ft.

Well finished to _____ ft.

Borehole diameter
Top 4 in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

MICHAEL KAVLONAS

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Tan & Brown silty sand
0-2'5"

0.0' E 2.5'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

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5

MONITORING WELL RECORD

Well Permit No. 29 - 23936
Atlas Sheet Coordinates 29 : 13 : 853 ☐

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-0
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTT Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:
Top 4" in.
Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Brown & Red silty sand
0'-2'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

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MONITORING WELL RECORD

Well Permit No. 29 - 23937
Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARTIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-P
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2.5" ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Karlunas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MO1328

Name of Drilling Company MICHAEL KARLUNAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.)
[From land surface] | Diameter
(inches) | Type and Material |
|---|--|---|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)

Tan + Brown Med Sand
0-2.5"

02' E 001

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Karlunas

Date

7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 23938
Atlas Sheet Coordinates 29 : 13 : 853 ☐

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-Q
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well ECRA Case I.D. # 88900 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) BTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top 4" in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MA1328 MICHAEL KAVLONAS

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Tan + Brown Med-sand
0-2

0-2

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

7/31/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

4

MONITORING WELL RECORD

Well Permit No. 29 - 23939
Atlas Sheet Coordinates 29 : 13 : 853 ☐

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SB-40
County _____ Municipality TINTON FALLS BO Lot No. 21-02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTT Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled _____ ft.

Well finished to _____ ft.

Borehole diameter:
Top 8 3/4 in.
Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid None Type of Rig B57

Name of Driller Michael Kavunas

Health and Safety Plan submitted? ☐ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328 MICHAEL KAVUNAS

Name of Drilling Company G.T. Drilling

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

Tan + olive med. sand
0-2
00' TS

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavunas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

2

MONITORING WELL RECORD

Well Permit No. 29 - 23940

Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner

ARIS CORP.

Address 100 GREGGENT COURT, STE 1600

DALLAS

City _____ State **TX**

Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. SB R

County _____ Municipality **TINTON FALLS BO**

Lot No. 21.02

Block No. 114.01

Address _____

TYPE OF WELL (as per Well Permit Categories) **BORING**

Date well completed 4/12/90

Regulatory Program Requiring Well **ECRA**

Case I.D. # 88990 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) BTI

Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top _____ in.

Bottom _____ in.

Well was finished: ☐ above grade

☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid none Type of Rig B57

Name of Driller Michael Kavlanas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328 **MICHAEL KAVLANAS**

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-2 Tan silts & Gravel

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlanas

Date

8/7/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 23941
Atlas Sheet Coordinates 29 : 13 : 853

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SBS
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 2' ft.

Well finished to _____ ft.

Borehole diameter:

Top _____ in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid None Type of Rig B57

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company MICHAEL KAVLONAS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0'-2' Tan + Med

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

8/7/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 23842
Atlas Sheet Coordinates 29 : 13 : 853

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SBT
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well RCRA Case I.D. # 88000 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 587-0200

WELL CONSTRUCTION

Total depth drilled _____ ft.

Well finished to _____ ft.

Borehole diameter:
Top 8 3/4 in.
Bottom _____ in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Augers

Drilling Fluid None Type of Rig B.S.T.

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company GTI MICHAEL KAVLINAS

| | Depth to
Top (ft.)
(From land surface) | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown & Tan

02° TS 200

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

5

MONITORING WELL RECORD

Well Permit No. 29 - 23943
Atlas Sheet Coordinates 29 : 13 : 853 ☐

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner ARIS CORP.
Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SRV
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 4/12/90
Regulatory Program Requiring Well ECRA Case I.D. # 88990 & 88A14
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTT Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 1' ft.

Well finished to _____ ft.

Borehole diameter:

Top _____ in.

Bottom _____ in.

Well was finished: ☐ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid none Type of Rig _____

Name of Driller Michael Kavlinas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MD1328 MICHAEL KAVLINAS

Name of Drilling Company GTT Drilling

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

Brown clayey sand

0.25 ft

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlinas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 23944
Atlas Sheet Coordinates 29 : 13 : 853

OWNER IDENTIFICATION - Owner

Redacted - Privacy Act

ARIS CORP.

Address 100 CRESCENT COURT, STE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. SBV

County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING

Date well completed 4/12/90

Regulatory Program Requiring Well RCRA

Case I.D. # 88990 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

GTL

Tele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 1.5' ft.

Well finished to _____ ft.

Borehole diameter

Top 8 3/4 in.

Bottom _____ in.

Well was finished: ☐ above grade

☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling _____ ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Hand Auger

Drilling Fluid None Type of Rig _____

Name of Driller Michael Kavlonas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. MA1328

Name of Drilling Company MICHAEL KAVLONAS

GTD

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-1.5" Brown med sand.

0-1.5"

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael Kavlonas

Date

8/22/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 - 24555
Atlas Sheet Coordinates 29 : 13 : 819

OWNER IDENTIFICATION - Owner STRAVOLA REALTY
Address _____
City RED BANK State NJ Zip Code 07701

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-3
County Monmouth Municipality TINTON FALLS BO Lot No. 7.01 Block No. 11.5
Address _____

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 1/10/90
Regulatory Program Requiring Well MONITORING Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) N/A Tele. # N/A

WELL CONSTRUCTION

Total depth drilled 20' ft.

Well finished to 20' ft.

Borehole diameter:
Top 8" in.
Bottom 8" in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling none ft.

Water level was measured using N/A

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid _____ Type of Rig Mobil 61 S

Name of Driller Chad Kraft

Health and Safety Plan submitted? ☐ Yes ☒ No

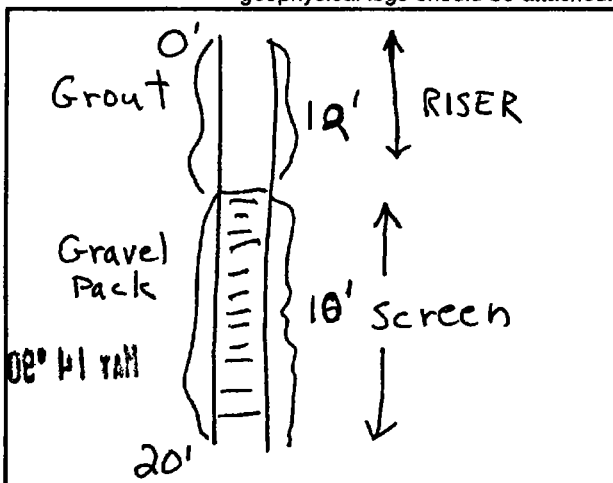
Level of Protection used on site (circle one) None (D) C B A

N.J. License No. 1402

Name of Drilling Company WARREN GEORGE INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 20' | 4" | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | N/A | | | |
| Screen
(Note slot size) | 10' | 20' | 4" | .020 Slot |
| Tail Piece | N/A | | | |
| Gravel Pack | 10' | 20' | 4" | #2 Mozie Sand |
| Annular Seal/Grout | 0 | 12 | | Bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)



I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Chad Kraft Date 5-11-90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WARREN GEORGE, INC.

FOOT OF JERSEY AVENUE

P. O. BOX 413

JERSEY CITY, N.J. 07303

Permit # 2924555-9

Coord # 29.13.819

29.13.819
29-24555

TEST BORINGS

| BORING LOG | | SPOON SAMPLE AND CORE DATA | | | | BLOWS ON CASING | |
|------------------|----------------------------|----------------------------|--------------------|--|--|------------------|--|
| DEPTH
FROM TO | DESCRIPTION
OF MATERIAL | SAMPLE
NUMBER | DEPTH
FROM - TO | BLOWS
PER FT.
CORE
RECOV'D.
INCHES | DRY WASH
UNDISTURBED
RECORD
REMARKS | Y-TRAP
C-CORE | 0-1
1-2
2-3
3-4
4-5
5-6
6-7
7-8
8-9
9-10
10-11
11-12
12-13
13-14
14-15
15-16
16-17
17-18
18-19
19-20
20-21
21-22
22-23
23-24
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26-27
27-28
28-29
29-30
30-31
31-32
32-33
33-34
34-35
35-36
36-37
37-38
38-39
39-40
40-41
41-42
42-43
43-44
44-45
45-46
46-47
47-48
48-49
49-50
50-51
51-52
52-53 |
| 0/2 | Brown coarse | | 0-2 | | 2-3-4-6 | | 59-60 |
| | Fine sand
little silt | | 5-7 | | 4-6-7-9 | | 60-61 |
| 2/13 | Brown Medium | | 8-10 | | 4-6-8-9 | | 61-62 |
| | Fine sand
trace silt | | 13-15 | | 7-12-14-24 | | 62-63 |
| 13/20 | Brown Medium
Fine sand | | 16-18 | | 7-6-12-6 | | 63-64 |
| | and trace silt | | | | | | 64-65 |
| | | | | | | | 65-66 |
| | | | | | | | 66-67 |
| | | | | | | | 67-68 |
| | | | | | | | 68-69 |
| | | | | | | | 69-70 |
| | | | | | | | 70-71 |
| | | | | | | | 71-72 |
| | | | | | | | 72-73 |
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| | | | | | | | 74-75 |
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| | | | | | | | 76-77 |
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| | | | | | | | 105-106 |
| | | | | | | | 106-107 |
| | | | | | | | 107-108 |
| | | | | | | | 108-109 |
| | | | | | | | 109-110 |
| | | | | | | | 110-111 |
| | | | | | | | 111-112 |

2

MONITORING WELL RECORD

Well Permit No. 29 24870
Atlas Sheet Coordinates 29 : 13 : 823 ☐

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELMER BUILDING 167
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-1
County Municipality EATONTOWN BOBO Lot No. N/A Block No. N/A
Address

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 6.19.90
Regulatory Program Requiring Well N/A Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tom Patania Tele. # 757-2255

WELL CONSTRUCTION

Total depth drilled 10 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade
☒ Flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig Mobil B-47

Name of Driller Gary Parent

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. BC0082 GARY PARENT

Name of Drilling Company

| | Depth to Top (ft.)
(From land surface) | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | <u>N/A</u> | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>10</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>pressure</u> | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|---------------|--|
| <u>0-6"</u> | <u>Topsoil</u> |
| <u>6"-4'</u> | <u>Greenish brown to light gray sand</u> |
| <u>4'-8'</u> | <u>Greenish Black Fine sand</u>
<u>SS</u> |
| <u>8'-10'</u> | <u>Red brown Med sand</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent

Date

8-2-90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 - 24871
Atlas Sheet Coordinates 29 : 13 : 823 ☐

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-H-E BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC - 2
County _____ Municipality EATENTOWN BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 6/19/90
Regulatory Program Requiring Well N/A Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) N/A Tele. # _____

WELL CONSTRUCTION

Total depth drilled 10 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade
☒ Flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 2.5 ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller Gary Parent

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. 30082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|---------|---|
| 0-6" | Top soil |
| 6"-10' | Greenish brown to greenish black very fine sand |
| 10'-12' | SS and |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent

Date

8-2-90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 - 24892
Atlas Sheet Coordinates 29 : 13 : 823 ☐

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-Help BUILDING 167
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-3
County Municipality EATONTOWN BORO Lot No. N/A Block No. N/A
Address

TYPE OF WELL (as per Well Permit Categories) BERING Date well completed 1/1/
Regulatory Program Requiring Well N/A Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 10 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade
☒ Flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 5' 1" ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig Auger

Name of Driller Gary

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. B0082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | <u>N/A</u> | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>10</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>pressure</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|---------------|---|
| <u>0-6"</u> | <u>Top soil</u> |
| <u>6'-8'</u> | <u>Brown + olive green
Sandy clay</u> |
| <u>8'-10'</u> | <u>Brown Fine SAND</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent

Date

8-2-90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 24893
Atlas Sheet Coordinates 29 13 823

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-H E BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-4
County _____ Municipality EATONTOWN BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) SPRING Date well completed 6.19.90
Regulatory Program Requiring Well N/A Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 10 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade

☒ Flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 4.5 ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller Gary

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. B0082 GARY PARENT

Name of Drilling Company _____

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | <u>N/A</u> | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>10</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>pressure</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|---------------|---------------------------------|
| <u>0-6"</u> | <u>Top Soil</u> |
| <u>6'-2'</u> | <u>Greenish brown Fine SAND</u> |
| <u>2'-10'</u> | <u>Black Fine clayey SAND</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent

Date

8-2-90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 24894
Atlas Sheet Coordinates 29 : 13 : 823 ☐

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-H-E BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-5
County _____ Municipality EATONTOWN BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 6.19.90
Regulatory Program Requiring Well N/A Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade

☒ Flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 9'8" ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller Gary

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. B0082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|--------------------------------------|--------------------|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing (Not Protective Casing) | | | | |
| Screen (Note slot size) | | | <u>N/A</u> | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>30</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>pressure</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|-------|--------------------------------------|
| 0-6" | <u>TOPSOIL</u> |
| 6"-8' | <u>Orange brown Fine sand</u> |
| 8-12 | <u>Black very Fine Sand</u> |
| 12-30 | <u>Greenish black very Fine sand</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent

Date

8/2/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 24875
Atlas Sheet Coordinates 29 : 13 : 823

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-H-E BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-6
County _____ Municipality EATONTOWN BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) BURING Date well completed 7.20.90
Regulatory Program Requiring Well N/A Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade

☒ Flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 80" ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller GARY

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. BC082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | | | | |
| Method of Grouting | | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|---------|--------------------------------------|
| 0-6' | Brown + Olive green Fine clayey sand |
| 6'-24' | Black Fine silty sand |
| | 02" SS cl. |
| 24'-30' | Greenish black silty sand |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent

Date

8/2/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 24896

Atlas Sheet Coordinates 29 : 13 : 823

OWNER IDENTIFICATION - Owner FORT MONMOUTH

Address SELF-H-E-BUILDING 167

City FORT MONMOUTH

State NJ

Zip Code

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. MCDC-7

County Municipality EATENTOWN BORO

Lot No. N/A

Block No. N/A

Address

TYPE OF WELL (as per Well Permit Categories) BORING

Date well completed 6.20.90

Regulatory Program Requiring Well N/A

Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

Tele. #

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ above grade

☐ flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 4.2 ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type:

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller GARY

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. B0082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>30</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>pressure</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|---------------|-----------------------------------|
| <u>0-1'</u> | <u>Topsoil</u> |
| <u>1-7'</u> | <u>olive green Fine sand</u> |
| <u>7'-26'</u> | <u>Black Very Fine silty sand</u> |
| <u>26-30</u> | <u>Greenish black Fine sand</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

GARY PARENT

Date

8/2/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 - 24897
Atlas Sheet Coordinates 29 : 13 : 823



OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-Help BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-8
County _____ Municipality EATONTOWN BORO Lot No. _____ Block No. _____
Address _____ N/A N/A

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 10/12/90
Regulatory Program Requiring Well BORING N/A Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) TOM Tele. # 757-2255

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished ☒ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 7'0" ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller Gary

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. B 0082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | <u>N/A</u> | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>30</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>Pressure</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|----------------|--|
| <u>0-8"</u> | <u>Top Soil</u> |
| <u>8"-4'</u> | <u>Olive Green fine SAND.</u> |
| <u>4'-5'</u> | <u>Brown & olive Green fine clayey SAND.</u> |
| <u>5'-26'</u> | <u>Black very fine Silty SAND.</u> |
| <u>26'-30'</u> | <u>Greenish Black fine SAND.</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Gary Parent J1540

Date 11/27/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 24898
Atlas Sheet Coordinates 29 : 13 : 823

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-Help BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCD-9
County Monmouth Municipality FORT MONMOUTH BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 10/12/90
Regulatory Program Requiring Well N/A Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tom Tele. # 757-2255

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished ☒ above grade

☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 6'1" ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller _____

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None ☒ C ☐ B ☐ A

N.J. License No. B0082 GARY PARENT

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | <u>N/A</u> | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>30</u> | | <u>Neat Cement</u> |
| Method of Grouting | <u>Pressure.</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

| | |
|-----------------|--|
| <u>0-1'</u> | <u>Top Soil</u> |
| <u>1-7'6"</u> | <u>Brown & olive green fine
clayey SAND.</u> |
| <u>7'6"-26'</u> | <u>Black very fine
Silty SAND.</u> |
| <u>26'-30'</u> | <u>Greenish Black fine
SAND.</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature Gary Parent J1540

Date 11/27/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 24899
Atlas Sheet Coordinates 29 : 13 : 823

OWNER IDENTIFICATION - Owner FORT MONMOUTH
Address SELF-H-E-BUILDING 167
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MCDC-10.
County Monmouth Municipality EATONTOWN BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) BERING Date well completed 10/12/90
Regulatory Program Requiring Well N/A Case I.D. # N/A

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tom Patania Tele. # 757-2255

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to N/A ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☒ Above grade

☒ flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 11' 1" ft.

Water level was measured using Tape

Well was developed for N/A hours at N/A gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig B-47

Name of Driller Gary

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None ☒ C ☐ B ☐ A

N.J. License No. B0082

Name of Drilling Company GARY PARENT

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | | | | |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0</u> | <u>30</u> | | <u>Neel Cement</u> |
| Method of Grouting | <u>Pressure</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| | |
|----------------|--|
| <u>0-2'</u> | <u>Olive Green fine SAND</u> |
| <u>2-7'6"</u> | <u>Brown & olive green fine clayey SAND.</u> |
| <u>7'6"-24</u> | <u>Black Very fine Silty SAND.</u> |
| <u>24-30'</u> | <u>Greenish Black fine SAND.</u> |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Gary Parent J1540

Date

11/27/90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 25352
Atlas Sheet Coordinates 29 : 13 : 819 ☐OWNER IDENTIFICATION - Owner STRAVOLA REALTY
Address _____
City RED BANK State NJ Zip Code 07701WELL LOCATION - If not the same as owner please give address. Owner's Well No. W-3C
County Monmouth Municipality TINTON FALLS BO Lot No. 7.01 Block No. 115
Address _____TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 10/15/90
Regulatory Program Requiring Well MONITORING Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) N/A Tele. # N/A

WELL CONSTRUCTION

Total depth drilled 20' ft.Well finished to 20' ft.

Borehole diameter:

Top 8" in.Bottom 8" in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling NONE ft.

Water level was measured using _____

Well was developed for _____ hours at _____ gpm

Method of development _____

Was permanent pumping equipment installed? ☐ Yes ☒ No

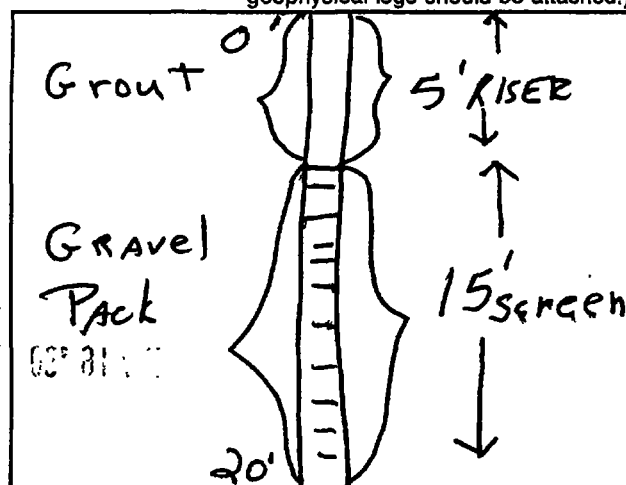
Pump capacity _____ gpm

Pump type: _____

Drilling Method AugerDrilling Fluid _____ Type of Rig MOBIL 61Name of Driller V. GandolfoHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None ☐ C ☒ B ☐ AN.J. License No. 1109Name of Drilling Company WARREN GEORGE INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 20' | 4" | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | N/A | | | |
| Screen
(Note slot size) | 5' | 20' | 4" | .020 SLOT |
| Tail Piece | N/A | | | |
| Gravel Pack | 15' | 20' | 4" | #2 Moric Sand |
| Annular Seal/Grout | 0' | 5' | | Bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Vincent GandolfoDate 10-19-90

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

Permit# 2925352 WARREN GEORGE, INC.
 FOOT OF JERSEY AVENUE
 P. O. BOX 413
 JERSEY CITY, N.J. 07303

29, 13.819
 29-25352

Coord# 29.13.819

TEST BORINGS

Permit # 2925352-7

| BORING LOG | | SPOON SAMPLE AND CORE DATA | | | | BLOWS ON CASING | | |
|---------------|-------------------------|----------------------------|-----------------|--------------------|-------------------|-----------------|-------|---------|
| DEPTH FROM TO | DESCRIPTION OF MATERIAL | SAMPLE NUMBER | DEPTH FROM - TO | BLOWS PER FT. WASH | UNDISTURBED REMOD | INTREAP CORE | 0-1 | 59-60 |
| | ABANDONED 4-3+B | | | | | | 1-2 | 60-61 |
| | RECORDED WELL | | | | | | 2-3 | 61-62 |
| | 3-C | | | | | | 3-4 | 62-63 |
| | | | | | | | 4-5 | 63-64 |
| | | | | | | | 5-6 | 64-65 |
| | | | | | | | 6-7 | 65-66 |
| | | | | | | | 7-8 | 66-67 |
| | | | | | | | 8-9 | 67-68 |
| | | | | | | | 9-10 | 68-69 |
| | | | | | | | 10-11 | 69-70 |
| | | | | | | | 11-12 | 70-71 |
| | | | | | | | 12-13 | 71-72 |
| | | | | | | | 13-14 | 72-73 |
| 0 | Rem. A-F S.M.O | | | | | | 14-15 | 73-74 |
| 20 | See S.M.O. | | | | | | 15-16 | 74-75 |
| | 20B | | | | | | 16-17 | 75-76 |
| | C 20 | | | | | | 17-18 | 76-77 |
| | | | | | | | 18-19 | 77-78 |
| | | | | | | | 19-20 | 78-79 |
| | | | | | | | 20-21 | 79-80 |
| 42 | 2" PVC RISER | | | | | | 21-22 | 80-81 |
| 5 | | | | | | | 22-23 | 81-82 |
| | | | | | | | 23-24 | 82-83 |
| | | | | | | | 24-25 | 83-84 |
| 5 | 15" 2" PVC | | | | | | 25-26 | 84-85 |
| 20 | SCHEM. | | | | | | 26-27 | 85-86 |
| | | | | | | | 27-28 | 86-87 |
| | | | | | | | 28-29 | 87-88 |
| | | | | | | | 29-30 | 88-89 |
| | 6 DAYS SAND | | | | | | 30-31 | 89-90 |
| | 1 ABOVE GROUND | | | | | | 31-32 | 90-91 |
| | | | | | | | 32-33 | 91-92 |
| | PROTECTIVE PIPE | | | | | | 33-34 | 92-93 |
| | 1 QUART PELLETS | | | | | | 34-35 | 93-94 |
| | | | | | | | 35-36 | 94-95 |
| | | | | | | | 36-37 | 95-96 |
| | | | | | | | 37-38 | 96-97 |
| | 2 DAYS CEMENT | | | | | | 38-39 | 97-98 |
| | | | | | | | 39-40 | 98-99 |
| | | | | | | | 40-41 | 99-100 |
| | | | | | | | 41-42 | 100-101 |
| | 1 hr development | | | | | | 42-43 | 101-102 |
| | Time | | | | | | 43-44 | 102-103 |
| | | | | | | | 44-45 | 103-104 |
| | | | | | | | 45-46 | 104-105 |
| | NOTE: W-2 | | | | | | 46-47 | 105-106 |
| | RECORDED | | | | | | 47-48 | 106-107 |
| | | | | | | | 48-49 | 107-108 |
| | | | | | | | 49-50 | 108-109 |
| | PROTECTIVE PIPE | | | | | | 50-51 | 109-110 |
| | | | | | | | 51-52 | 110-111 |
| | | | | | | | 52-53 | 111-112 |
| | | | | | | | 53-54 | 112-113 |
| | | | | | | | 54-55 | 113-114 |
| | | | | | | | 55-56 | 114-115 |
| | | | | | | | 56-57 | 115-116 |
| | | | | | | | 57-58 | 116-117 |
| | | | | | | | 58-59 | 117-118 |

| GROUND WATER | | | Drive Hammer | Lbs. |
|--------------|------|------|------------------|--------|
| DEPTH | DOWN | DATE | Spoon Hammer | Lbs. |
| 0 | | | Casing Size | 6 Inch |
| | | | Spoon Size | Inch |
| | | | Size of Core Bit | Inch |

* Under Remarks mention kind of bit, loss of sample, loss of drilling water, soft, seamy or broken rock, caving, cavities unusual ground water conditions, etc., at depth encountered.

ADDITIONAL REMARKS

DRILLER
 HELPER
 HELPER



MONITORING WELL RECORD

Well Permit No. 29 - 25775
Atlas Sheet Coordinates 29 : 13 : 852OWNER IDENTIFICATION - Owner Redacted - Privacy ActAddress 100 CRESCENT COURT, SUITE 1600
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. MW 7 Drive PointCounty _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories)

Date well completed 2/17/91Regulatory Program Requiring Well MONITORING

Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

GTITele. # 587-0300

WELL CONSTRUCTION

Total depth drilled 12' ft.Well finished to 12' ft.

Borehole diameter:

Top 2 1/4 in.Bottom 2 1/4 in.Well was finished: ☐ above grade☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 4' ft.Water level was measured using M-scopeWell was developed for 1 hours at 1/2 gpmMethod of development BailedWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method DriveDrilling Fluid _____ Type of Rig Jack HammerName of Driller Michael KavlunasHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) (None) D C B AN.J. License No. MD1328Name of Drilling Company GT DRILLING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-----------------------------|
| Inner Casing | <u>0'</u> | <u>2'</u> | <u>2"</u> | <u>Galvanized steel</u> |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | <u>2</u> | <u>12'</u> | <u>2"</u> | <u>S.S. Cont. wrap .020</u> |
| Tail Piece | | | | |
| Gravel Pack | | | | |
| Annular Seal/Grout | <u>0'</u> | <u>1'</u> | | <u>Ben treatment</u> |
| Method of Grouting | <u>Tremie</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0-12" Sand med.
Tan.I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael Kavlunas

Date

3/29/91

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 26312
Atlas Sheet Coordinates 29 : 13 : 852

OWNER IDENTIFICATION - Owner Redacted - Privacy Act

Address 100 CRESCENT COURT
City DALLAS State TX Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 8
County _____ Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/10/91
Regulatory Program Requiring Well ECRA Case I.D. # 88990888A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) GTI Tele. # 5870300

WELL CONSTRUCTION

Total depth drilled _____ ft. Note # Drive Point

Well finished to 8' ft.

Borehole diameter:
Top 2' in.
Bottom 2" in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 4' ft.

Water level was measured using M-Scope

Well was developed for 1 hours at 1 gpm

Method of development Bailed

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger Driven

Drilling Fluid _____ Type of Rig Jackhammer

Name of Driller Michael J. Kavalunas

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. MD1328

Name of Drilling Company GT DRILLING

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0-4" Cement
4"-8" med. Tan sand some silt.

10' TS mud

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Michael J. Kavalunas

Date

6/11/91

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



E

MONITORING WELL RECORD

Well Permit No. 29 26590
Atlas Sheet Coordinates 29 : 13 : 855

OWNER IDENTIFICATION - Owner MTD ATLANTIC INDUSTRIAL
Address 2 INDUSTRIAL WAY WEST
City KATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW# 1
County Monmouth Municipality KATONTOWN BORO Lot No. 64-01 Block No. 111
Address 556 industrial Way West

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7 / 19 / 91
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Accutech Tele. # 739-6444

WELL CONSTRUCTION

Total depth drilled 12 ft.

Well finished to 12 ft.

Borehole diameter:

Top 10 in.

Bottom 10 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 3 ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 6 ft.

Water level was measured using steel tape

Well was developed for 1/2 hours at 2 gpm

Method of development centrifugal pump

Was permanent pumping equipment installed? ☒ Yes ☐ No

Pump capacity n/a gpm

Pump type: n/a

Drilling Method Hollow stem auger

Drilling Fluid none Type of Rig D-50

Name of Driller Allen Wilson

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1278

Name of Drilling Company WILSON DRILLING

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | + 3 | 2 | 4 | Sch.40 PVC |
| Outer Casing
(Not Protective Casing) | none | | | |
| Screen
(Note slot size) | 2 | 12 | 4 | Sch.40PVC/020slot |
| Tail Piece | none | | | |
| Gravel Pack | 1.5 | 12 | | #2 well gravel |
| Annular Seal/Grout | 0 | 1.5 | | Bentinite/cement |
| Method of Grouting | Gravity Placment | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0-4' brown & .. gray sand
4'-12' green sand
water level @ 6ft.

10 DE JUL

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Allen J. Wilson

Date 7/24/91

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



4

MONITORING WELL RECORD

Well Permit No. 29 - 26591
Atlas Sheet Coordinates 29 : 13 : 855

OWNER IDENTIFICATION - Owner MID ATLANTIC INDUSTRIAL
Address 2 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW #2
County Monmouth Municipality EATONTOWN BOBO Lot No. 64.01 Block No. 111
Address 556 Industrial Way West

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7 / 19 / 91
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Accutech Tele. # 739-6444

WELL CONSTRUCTION

Total depth drilled 12 ft.

Well finished to 12 ft.

Borehole diameter:

Top 1.0 in.

Bottom 1.0 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 3 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 6 ft.

Water level was measured using steel tape

Well was developed for 2 hours at 2 gpm

Method of development centrifugal pump

Was permanent pumping equipment installed? ☒ Yes ☐ No

Pump capacity n/a gpm

Pump type: n/a

Drilling Method Hollow stem auger

Drilling Fluid none Type of Rig D-50

Name of Driller Allen Wilson

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1278

WILSON DRILLING

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | ±3 | 2 | 4 | Sch.40 FVC |
| Outer Casing
(Not Protective Casing) | none | | | |
| Screen
(Note slot size) | 2 | 12 | 4 | Sch.40PVC.020slot |
| Tail Piece | none | | | |
| Gravel Pack | 1.5 | 12 | | #2 well gravel |
| Annular Seal/Grout | 0 | 1.5 | | Bent./cement |
| Method of Grouting | Gravity Placement | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0-4' brown & gray sand
4'-12' green sand
water level at 6 ft.

12' DE sd

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Allen J. Wilson

Date 7/24/91

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



e

MONITORING WELL RECORD

Well Permit No. 29 26592
Atlas Sheet Coordinates 29 : 13 : 855

OWNER IDENTIFICATION - Owner MID ATLANTIC INDUSTRIAL
Address 2 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW #3
County Monmouth Municipality EATONTOWN BORO Lot No. 64-01 Block No. 111
Address 556 Industrial way west

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7 / 19 / 91
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Accutech Tele. # 739-6444

WELL CONSTRUCTION

Total depth drilled 15 ft.

Well finished to 15 ft.

Borehole diameter:

Top 10 in.

Bottom 10 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 3 ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 8 ft.

Water level was measured using steel tape

Well was developed for 1/2 hours at 2 gpm

Method of development centrifugal pump

Was permanent pumping equipment installed? ☒ Yes ☐ No

Pump capacity n/a gpm

Pump type: n/a

Drilling Method hollow stem auger

Drilling Fluid none Type of Rig D-50

Name of Driller Allen Wilson

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1278 **WILSON DRILLING**

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | +3 | 5 | 4 | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | none | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | Sch.40PVC.020slot |
| Tail Piece | none | | | |
| Gravel Pack | 4.5 | 15 | | #2 well gravel |
| Annular Seal/Grout | 0 | 4.5 | | bent./cement |
| Method of Grouting | Gravity Placement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-4' brown & gray sand
4'-15' green sand
water level at 8 ft.

18 DE 91

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Allen J. Wilson Date 7/24/91

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORDWell Permit No. 29 - 26724
Atlas Sheet Coordinates 29 : 13 : 859OWNER IDENTIFICATION - Owner WELG TOWER CORPORATION
Address 1129 HOPE ROAD
City ASBURY PARK State NJ Zip Code _____WELL LOCATION - If not the same owner please give address. Owner's Well No. _____
Address 11299 Hope Road Asbury Park, NJ
County Monmouth Municipality TINTON FALLS BO Lot No. 5-02 Block No. 115WELL USE Withdrawal Status In UseWATER USE Domestic Average 2000 gals. daily Maximum 4000 gals. dailyWELL CONSTRUCTION Date well completed 09 / 16 / 91
BOREHOLE DIMENSIONS Depths: Total 87 ft. Finished Same ft.
Diameter: Top 8.5 in. Bottom Same in.
Land Surface Elevation at well 90 ft. Elevation was determined using Topographic Map
Casing Height (stick-up) above land surface 1.5 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | 72 | 4.0" | Schedule 40 PVC |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | 71 | 10 | 4 | Schedule 40 PVC/.020 |
| Screen 2 | | | | |
| Tail Piece | | 5' | 4" | |
| Gravel Pack | 61 | 25' | 8.5" | .025 Blended |
| Grout | Surface | 61 | | 200 mesh Bentonite |
| Grouting Method | | | | Pressure, Thru Tremie Pipe |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date 09 / 16 / 91
Static water-level before pumping 17 ft. below land surface. Water level 61 ft. below land surface after 1 hrs. of pumping.
Water level was measured using Estimated Drawdown 44 ft.
Discharge rate measured using Measured Container Discharge Rate _____ gals. per min.
Well was pumped using Air Lift Specific Capacity 0.9 gals. per min. per ft. of drawdown
Observed effects on nearby wells None
Water Quality (taste, odor, color, etc.) GoodPERMANENT PUMPING EQUIPMENT Installed by PUMP NOT INSTALLED Pump Type _____
Mfrs. Name AS AT DATE OF THIS REPORT Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING
Address P.O. Box 6, Farmingdale, NJ 07727 (908) 938 5300
City David Primost NJ041 State _____ Zip Code _____
Name of Driller Norman Primost J1407 License No. _____
Allen Primost J1407Signature of Contractor Norman Primost #1040 Date 10 / 24 / 91

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

10/24/91

10/24/91

Well Permit No. 29 - 26724
29 13 859

Aquifer/Geo. Fm. VINCENT TOWNSHIP

Date / /

65-87 med. & Fine Gray Green Sand/ Shells

Fm.

Date: 10-28-77

E

MONITORING WELL RECORD

Well Permit No. 29 - 27443
Atlas Sheet Coordinates 29 : 19 : 818 ☐OWNER IDENTIFICATION - Owner MONMOUTH CO., NEW JERSEY
Address KOZLOSKI ROAD & CENTER ST.
City FRESHOLD State NJ Zip Code 07728WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW1
County _____ Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address Mosquito Commission 143A Wayside RoadTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1.22.92
Regulatory Program Requiring Well UST Case I.D. # _____CONSULTING FIRM/FIELD SUPERVISOR (if applicable) KILLAM ASSOCIATES Tele. # (201) 379-3400

WELL CONSTRUCTION

Total depth drilled 17'6" ft.Well finished to 17'0" ft.

Borehole diameter:

Top 10 in.Bottom 10 in.Well was finished: ☐ above grade☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 11'4" ft.Water level was measured using TAPEWell was developed for 1 hours at 5 gpmMethod of development SUBMERSTABLEWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity 5 gpmPump type: GOULD PUMPDrilling Method Hollow Stem AugerDrilling Fluid None Type of Rig Mobile Drill B-47Name of Driller Wayne LipscombHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None ☒ C B AN.J. License No. 1217Name of Drilling Company KEY-TECH

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------------|
| Inner Casing | 0 | 7 | 4 | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 7 | 17 | 4 | .020 PVC |
| Tail Piece | | | | |
| Gravel Pack | 5 | 17'6" | 10 | #2 |
| Annular Seal/Grout | 0 | 5 | 10 | 1' Bentonite 4' Concrete |
| Method of Grouting | PRESSURE GROUT | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

SEE ATTACHED LOGS

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Wayne LipscombDate 4/14/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

Coord #: 29.13.818

Permit 2927443

| KEY - TECH | | | | WELL INSTALLATION LOG | | | | WELL NO: MW-1 | |
|--|-----------------|---------------|--|-----------------------|---|---------------------|--------------------------------|------------------------|--|
| PROJECT MOSQUITO COMMISSION, WAYSIDE RD., TINTON FALLS, NJ | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, MILLBURN, NJ 29.13.818 | | | | | | | | JOB NO.: 92-05 | |
| BORING CONTRACTOR KEY - TECH 29-27443 | | | | | | | | ELEVATION: | |
| GROUND WATER | | | | CAS. | SAMP. | CORE | TUBE | DATUM: | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | | DATE START: 1-22-92 | |
| 1-22-92 | 10:00 | 11'4" | In | DIA. | 3 1/2" | 2" | | DATE FINISHED: 1-22-92 | |
| | | | | WT. | | 140# | | DRILLER: Ron | |
| | | | | FALL | | 30" | | REP: Al | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | | |
| 1 | | S-1 | 9 | | Olive yellow fine SAND | | Flush Mounted
Cast-Iron Cap | | |
| 2 | | | 10 | | 0'0" - 2'0" | | | | |
| 3 | | S-2 | 4 | | do | | Concrete
Grout | | |
| 4 | | | 4 | | 2'0" - 4'0" | | 4" PVC | | |
| 5 | | S-3 | 5 | | do | | Bentonite
Seal | | |
| 6 | | | 6 | | 4'0" - 6'0" | | | | |
| 7 | | S-4 | 5 | | Light olive/yellow fine
SAND | | | | |
| 8 | | | 4 | | 6'0" - 8'0" | | | | |
| 9 | | S-5 | 5 | | Brownish yellow fine
SAND | | | | |
| 10 | | | 5 | | 8'0" - 10'0" | | | | |
| 11 | | S-6 | 4 | | Olive yellow fine SAND | | 4" PVC Screen | | |
| 12 | | | 4 | | 10'0" - 12'0" | | | | |
| 13 | | S-7 | 4 | | do | | | | |
| 14 | | | 5 | | 12'0" - 14'0" | | Sand Pak | | |
| 15 | | | A | | | | | | |
| 16 | | | F | | | | | | |
| 17 | | | S | | | | End Cap | | |
| 18 | | | | | BORING COMPLETE @ 17'6" | Well Set
@ 17'0" | | | |
| 19 | | | | | * Soil identifications are
by drillers visual
examination of soil
samples obtained during
test boring procedures. | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

E

MONITORING WELL RECORD

Well Permit No. 29 - 27444
Atlas Sheet Coordinates 29 : 13 : 818 ☐

OWNER IDENTIFICATION - Owner MONMOUTH CO., NEW JERSEY
Address KOZLOSKI ROAD & CENTER ST.
City FREEHOLD State NJ Zip Code 07728

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 2
County TINTON FALLS DO Municipality Mosquito Commission Lot No. 21.01 Block No. 97
Address 143A Waxside Road

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/22/92
Regulatory Program Requiring Well DST Case I.D. #

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) KILLAM ASSOCIATES Tele. # (201) 379-3400

WELL CONSTRUCTION

Total depth drilled 17.5 ft.

Well finished to 17 ft.

Borehole diameter:

Top 10 in.

Bottom 10 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface ft.

Was steel protective casing installed?

☒ Yes ☐ No

Static water level after drilling 11' 6" ft.

Water level was measured using tape

Well was developed for 1 hours at 5 gpm

Method of development SUBMERSIBLE

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity 5 gpm

Pump type: GOULD PUMP

Drilling Method Hollow Stem Auger

Drilling Fluid NONE Type of Rig Mobile Drill B47

Name of Driller Warne Lipscomb

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. 1217

Name of Drilling Company KEY-TECH

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------------------|
| Inner Casing | 0 | 7 | 4 | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 7 | 17 | 4 | .020 PVC |
| Tail Piece | | | | |
| Gravel Pack | 5 | 17' 6" | 10 | #2 |
| Annular Seal/Grout | 0 | 5 | 10 | 1' Bentonite 4' Concrete Grout |
| Method of Grouting | PRESSURE GROUT | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

SEE ATTACHED LOGS

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Warne Lipscomb

Date 4/14/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

Coord #: 29.13.818 Permit 2927444

| KEY - TECH | | | | WELL INSTALLATION LOG | | | | WELL NO: MW-2 | |
|--|-----------------|---------------|--|-----------------------|---|---------------------|---------------|------------------------|--|
| PROJECT MOSQUITO COMMISSION, WAYSIDE RD., TINTON FALLS, NJ | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, MILLBURN, NJ 29.13.818 | | | | | | | | JOB NO.: 92-05 | |
| BORING CONTRACTOR KEY - TECH 2927444 | | | | | | | | ELEVATION: | |
| GROUND WATER | | | | CAS. | SAMP | CORE | TUBE | DATUM: | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | | DATE START: 1-22-92 | |
| 1-22-92 | 2:00 | 11'6" | In | DIA. | 3 1/2" | 2" | | DATE FINISHED: 1-22-92 | |
| | | | | WT. | | 140# | | DRILLER: Ron | |
| | | | | FALL | | 30" | | REP: Al | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | | |
| 1 | | | A | | Olive yellow fine SAND | | Flush Mounted | 10" | |
| 2 | | | F | | | Concrete | | | |
| 3 | | | S | | | Grout | | | |
| 4 | | | | | 0'0" - 4'0" | | 4" PVC | Bentonite
Seal | |
| 5 | | S-1 | 4 | | Olive brown fine SAND
with little Gravel | | | | |
| 6 | | | 3 | | | | | | |
| 7 | | | 3 | | | | | | |
| 8 | | | 2 | | 4'0" - 6'0" | | | | |
| 9 | | | A | | Light olive yellow fine
SAND | | | | |
| 10 | | S-2 | F | | | | | | |
| 11 | | | S | | | 6'0" - 9'0" | | | |
| 12 | | | 4 | | Olive fine SAND | | 4" PVC Screen | | |
| 13 | | | 4 | | | | | | |
| 14 | | | 4 | | | 9'0" - 11'0" | | | |
| 15 | | | | | | Water @ 11'6" | | | |
| 16 | | | A | | do | | | | |
| 17 | | | F | | | | | Sand Pak | |
| 18 | | | S | | | | | | |
| 19 | | | | | 11'0" - 17'0" | | End Cap | | |
| 20 | | | | | Boring
Complete @ 17'6"
* Soil identifications are
by drillers visual
examination of soil
samples obtained during
test boring procedures. | Well Set
@ 17'0" | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

E

MONITORING WELL RECORD

Well Permit No. 29 - 27453
Atlas Sheet Coordinates 29: 13: 818 ☐OWNER IDENTIFICATION - Owner MONMOUTH COUNTY OF
Address KOZLOSKI ROAD & CENTER STREET
City FREEHOLD State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-3
County _____ Municipality TINTON FALLS Lot No. 21.01 Block No. 97
Address Mosquito Commission 1434 Waterloo RdTYPE OF WELL (as per Well Permit Categories) _____ Date well completed 1/23/92
Regulatory Program Requiring Well MONITORING Case I.D. # _____CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Killian Associates Tele. # 201 379 3400

WELL CONSTRUCTION

Total depth drilled 18 ft.Well finished to 17 1/2 ft.

Borehole diameter:

Top 10 in.Bottom 10 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 11'9" ft.Water level was measured using tapeWell was developed for 1 hours at 5 gpmMethod of development SubmersibleWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity 5 gpmPump type: GravelDrilling Method Hollow Stem AugerDrilling Fluid None Type of Rig Mobile Drill 1347Name of Driller WAYNE LIPSCOMBHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1217Name of Drilling Company KRY-TECH

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|------------------------------|
| Inner Casing | 0 | 7 1/2 | 4 | NVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 7 1/2 | 17 1/2 | 4 | .020 NVC |
| Tail Piece | | | | |
| Gravel Pack | 5 1/2 | 18 | 10 | #2 |
| Annular Seal/Grout | 0 | 5 1/2 | 10 | 1' Betacrete 4 1/2' Portland |
| Method of Grouting | Pressure Grout | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

See Attached Logs

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Wayne LipscombDate 4/14/92

COPIES: White & Green - DEPE Canary - Driller's Office Owner Goldenrod - Health Dept.

COORD. # 29.13.818 / PERMIT # 2927453

| KEY - TECH | | | | WELL INSTALLATION LOG | | | | WELL NO: MW-3 | |
|--|-----------------|---------------|--|-----------------------|---|---------------------|--------------------------------|------------------------|----|
| PROJECT MOSQUITO COMMISSION, WAYSIDE RD., TINTON FALLS, NJ | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, MILLBURN, NJ 29.13.818 | | | | | | | | JOB NO.: 92-05 | |
| BORING CONTRACTOR KEY - TECH 2927453 | | | | | | | | ELEVATION: | |
| GROUND WATER | | | | CAS. | SAMP. | CORE | TUBE | DATUM: | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | | DATE START: 1-23-92 | |
| 1-23-92 | 10:30 | 11'9" | In | DIA. | 3 1/2" | 2" | | DATE FINISHED: 1-23-92 | |
| | | | | WT. | | 140# | | DRILLER: Ron | |
| | | | | FALL | | 30" | | REP: Al | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | 10" | 4" |
| 1 | | | | | | | Flush Mounted
Cast Iron Cap | | |
| 2 | | | | A | Light olive brown fine
SAND | | Concrete
Grout | | |
| 3 | | | | F | | | | | |
| 4 | | | | S | 0'0" - 4'0" | | 4" PVC | | |
| 5 | | S-1 | 4 | | Light olive brown fine
SAND | | Bentonite
Seal | | |
| 6 | | | 3 | | 4'0" - 6'0" | | | | |
| 7 | | | 3 | | | | | | |
| 8 | | | 4 | A | do | | | | |
| 9 | | | | F | 6'0" - 9'0" | | | | |
| 10 | | S-2 | 3 | | Olive yellow fine SAND | | | | |
| 11 | | | 4 | | 9'0" - 11'0" | | 4" PVC Screen | | |
| 12 | | | | A | | | | | |
| 13 | | | | F | Light olive brown fine
SAND | | Sand Pack | | |
| 14 | | | | | | | | | |
| 15 | | | | S | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | 11'0" - 18'0" | | End Cap | | |
| 19 | | | | | TEST BORING COMPLETE
@ 18'0" | Well Set
@ 17'6" | | | |
| 20 | | | | | * Soil identifications are
by drillers visual
examination of soil
samples obtained during
test boring procedure | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

MONITORING WELL RECORD

Well Permit No. 29 - 27643
Atlas Sheet Coordinates 29 : 13 : 598

OWNER IDENTIFICATION - Owner DONATO GROUP - MERIDIAN CENT
Address 3 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. P-1
County _____ Municipality EATONTOWN BOBO Lot No. 6.07 Block No. 135
Address _____

TYPE OF WELL (as per Well Permit Categories) PIEZOMETER Date well completed 3, 6, 92
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 24 ft.
Well finished to 24 ft.

Borehole diameter:
Top 9 in.
Bottom 9 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 1 ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 15.5 ft.
Water level was measured using wetted tape
Well was developed for 0.5 hours at 21 gpm
Method of development Bailing

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method H.S.A.

Drilling Fluid N/A Type of Rig CME 550

Name of Driller Mathew Raab

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1577

Name of Drilling Company EMPIRE SOILS INVESTIGATIONS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-----------------------|
| Inner Casing | <u>1</u> | <u>14</u> | <u>2</u> | <u>PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>N/A</u> | <u>—</u> | <u>—</u> |
| Screen
(Note slot size) | <u>14</u> | <u>24</u> | <u>2</u> | <u>PVC 0.010 slot</u> |
| Tail Piece | <u>—</u> | <u>N/A</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>12</u> | <u>24</u> | <u>—</u> | <u>#1 SAND</u> |
| Annular Seal/Grout | <u>10/0</u> | <u>12/10</u> | <u>—</u> | <u>pellets/grout</u> |
| Method of Grouting | <u>Tremie</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-4' = Brown - fine - med sand
4'-22' = Brown green fine red
SAND, trace silt

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Mathew Raab / AK

Date

3/6/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 27644
Atlas Sheet Coordinates 29 : 13 : 598

OWNER IDENTIFICATION - Owner DONATO GROUP MERIDIAN CENT
Address 3 INDUSTRIAL WAY WEST
City KATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. D-2
County _____ Municipality KATONTOWN BOBO Lot No. 6.07 Block No. 135
Address _____

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 3, 7, 92
Regulatory Program Requiring Well PIEZOMETER Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 18 ft.

Well finished to 18 ft.

Borehole diameter:

Top 9 in.

Bottom 9 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 2 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 9.5 ft.

Water level was measured using wetted tape

Well was developed for 0.5 hours at 1 gpm

Method of development Bailing

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method HSA

Drilling Fluid N/A Type of Rig CME-550

Name of Driller Matthew Raab

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1577

Name of Drilling Company EMPIRE SOILS INVESTIGATIONS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|------------------------|
| Inner Casing | <u>12</u> | <u>8</u> | <u>2</u> | <u>PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>N/A</u> | <u>—</u> | <u>—</u> |
| Screen
(Note slot size) | <u>8</u> | <u>18</u> | <u>2</u> | <u>PVC 0.010 slot</u> |
| Tail Piece | <u>—</u> | <u>N/A</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>6</u> | <u>18</u> | <u>—</u> | <u>#1 SAND</u> |
| Annular Seal/Grout | <u>4/0</u> | <u>6/4</u> | <u>—</u> | <u>Ac/lets/Benseal</u> |
| Method of Grouting | <u>Gravity</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0'-4' = Brown fine-med
SAND
4'-18' = Brown-green fine-med
SAND, trace

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature Matthew Raab / AK Date 3/7/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 27645
Atlas Sheet Coordinates 29 : 13 : 598 ☐OWNER IDENTIFICATION - Owner DONATO GROUP-MERIDIAN CENT
Address 3 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. P-3
County _____ Municipality EATONTOWN BOBO Lot No. 6.07 Block No. 135
Address _____TYPE OF WELL (as per Well Permit Categories) PIEZOMETER Date well completed 3, 6, 92
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 17 ft.Well finished to 17 ft.

Borehole diameter:

Top 9 in.Bottom 9 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2 ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 9 ft.Water level was measured using TapWell was developed for 0.5 hours at 1 gpmMethod of development DrillingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid N/A Type of Rig CME-SSOName of Driller Mathew RaabHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1577Name of Drilling Company EMPIRE SOILS INVESTIGATIONS

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-----------------------|
| Inner Casing | <u>42</u> | <u>7</u> | <u>2</u> | <u>PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>N/A</u> | <u>—</u> | <u>—</u> |
| Screen
(Note slot size) | <u>7</u> | <u>17</u> | <u>2</u> | <u>PVC 0.010 slot</u> |
| Tail Piece | <u>—</u> | <u>N/A</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>5</u> | <u>17</u> | <u>—</u> | <u>A1 SAND</u> |
| Annular Seal/Grout | <u>3/6</u> | <u>5/3</u> | <u>—</u> | <u>Pillots/censul</u> |
| Method of Grouting | <u>Gravity</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-2' = Brown fine-med SAND
2'-4' = Light Brown & green
fine-med sand
4'-10' = Brown & Red fine med
SAND
10'-17' = Green & Brown fine-med
SAND

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Mathew RaabDate 3/6/92

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 27756
Atlas Sheet Coordinates 29 : 13 : 829 ☐

OWNER IDENTIFICATION - Owner COSTCO WHOLESALE CORP
Address 20 FAWN RIDGE
City MILLWOOD State NY Zip Code 10546

WELL LOCATION - If not the same as owner please give address. Owner's Well No. P-1
County Monmouth Municipality TINTON FALLS BO Lot No. 7.01 Block No. 115
Address Hope Road

TYPE OF WELL (as per Well Permit Categories) PIEZOMETER Date well completed 4/6/92
Regulatory Program Requiring Well N/A Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) EcoScience Inc. Tele. # 201-366-9500

WELL CONSTRUCTION

Total depth drilled 14 ft.
Well finished to 14 ft.

Borehole diameter:
Top 75/8 in.
Bottom 75/8 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2 ft.

Was steel protective casing installed? ☒ Yes ☐ No

Static water level after drilling 4 ft.
Water level was measured using Tape and line
Well was developed for 1 hours at 5 gpm
Method of development TRASH pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A Type of Rig ACKA II

Name of Driller Ronald Juckett

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. 31474

Name of Drilling Company JERSEY BORING

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|----------------------|
| Inner Casing | 0 | 4 | 2 | Sch 40 PVC |
| Outer Casing
(Not Protective Casing) | N/A | N/A | N/A | N/A |
| Screen
(Note slot size) | 4 | 14 | 2 | Sch 40 PVC .020 slot |
| Tail Piece | N/A | N/A | N/A | N/A |
| Gravel Pack | 3 | 14 | 75/8 | #2 well gravel |
| Annular Seal/Grout | 0 | 3 | 75/8 | Cement/Bentonite |
| Method of Grouting | Tremi with pump | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0' to 14' yellow STY m/f SAND

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Ronald Juckett

Date

4/11/92

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



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MONITORING WELL RECORD

Well Permit No. 29 27757 13 829
Atlas Sheet Coordinates _____

OWNER IDENTIFICATION - Owner COSTCO WHOLESALE CORP
Address 20 FAWN RIDGE
City MILLWOOD State NY Zip Code 10546

WELL LOCATION - If not the same as owner please give address _____ Owner's Well No. P-2
County MONMOUTH Municipality TINTON FALLS BO Lot No. 7-01 Block No. 115
Address Hope Road

TYPE OF WELL (as per Well Permit Categories) PIEZOMETER Date well completed 4/6/92
Regulatory Program Requiring Well Statewide Case I.D. # N/A
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) EcoScience Inc. Tele. # 201-366-9500

WELL CONSTRUCTION

Total depth drilled 15 ft.
Well finished to 15 ft.

Borehole diameter:
Top 7 5/8 in.
Bottom 7 5/8 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 2 ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling _____ ft.
Water level was measured using Tape and line
Well was developed for 1 hours at 5 gpm
Method of development TRASH pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method Auger

Drilling Fluid N/A

Type of Rig ACKER AD-1E

Name of Driller Ronald Juckett

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. 51474

JERSEY BORING

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-----------------------|
| Inner Casing | 0 | 5 | 2 | Sch 40 pvc |
| Outer Casing
(Not Protective Casing) | N/A | N/A | N/A | N/A |
| Screen
(Note slot size) | 5 | 15 | 2 | Sch 40 pvc, 0.20 slot |
| Tail Piece | N/A | N/A | N/A | N/A |
| Gravel Pack | 5 | 15 | 7 5/8 | #2 well gravel |
| Annular Seal/Grout | 0 | 5 | 7 5/8 | Cement/Bentonite |
| Method of Grouting | TRemi with pump | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0' to 15' yellow STy mlf
Sand

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Ronald Juckett

Date 4/11/92

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 2775B
Atlas Sheet Coordinates 29 13 829OWNER IDENTIFICATION - Owner COSTCO WHOLESALE CORP
Address 20 FAWN RIDGE
City MILLWOOD State NY Zip Code 10546WELL LOCATION - If not the same as owner please give address. Owner's Well No. D-3
County Monmouth Municipality TINTON FALLS BO Lot No. 7.01 Block No. 115
Address Hope RdTYPE OF WELL (as per Well Permit Categories) PIEZOMETER Date well completed 4/6/92
Regulatory Program Requiring Well N/A Case I.D. # N/ACONSULTING FIRM/FIELD SUPERVISOR (if applicable) EcoScience Inc. Tele. # 201-366-9500

WELL CONSTRUCTION

Total depth drilled 14 ft.Well finished to 14 ft.

Borehole diameter:

Top 7 5/8 in.Bottom 7 5/8 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 4 ft.Water level was measured using Tape drop lineWell was developed for 1 hours at 5 gpmMethod of development Trash pumpWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method AugerDrilling Fluid N/A Type of Rig ACKAD IIName of Driller Ronald TuckettHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 51474Name of Drilling Company JERSEY BORING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|------------------------|
| Inner Casing | 0 | 4 | 2 | Sch 40 pvc |
| Outer Casing
(Not Protective Casing) | N/A | N/A | N/A | N/A |
| Screen
(Note slot size) | 4 | 14 | 2 | Sch 40 pvc - 0.20 slot |
| Tail Piece | N/A | N/A | N/A | N/A |
| Gravel Pack | 4 | 14 | 7 5/8 | #2 well gravel |
| Annular Seal/Grout | 0 | 4 | 7 5/8 | Cement/Bentonite |
| Method of Grouting | TBemi with pump | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0' to 14' yellow STy m/p
SandI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Ronald H Tuckett

Date

4/11/92

COPIES: White & Green - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 - 28781
Atlas Sheet Coordinates 29 : 13 : 842

OWNER IDENTIFICATION - Owner MONMOUTH COUNTY OF
Address KOZLOSKI RD. & CENTER ST.
City FREEHOLD State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW1
County _____ Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address Highway District #3/#6 Pine Brook Rd

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 3/10/93
Regulatory Program Requiring Well UST Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Killam Associates Tele. # 201 379 3400

WELL CONSTRUCTION

Total depth drilled 18 ft.

Well finished to 17 ft.

Borehole diameter:
Top 12 in.
Bottom 12 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed? ☒ Yes ☐ No Flush mount cast iron exp

Static water level after drilling 11'1" ft.

Water level was measured using tape

Well was developed for 1 hours at 2.6 gpm

Method of development Backwash

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity 10 gpm

Pump type: submersible

Drilling Method Hollow Stem Auger

Drilling Fluid None Type of Rig Mobile Drill/B47

Name of Driller Ronald Cook

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. JA1603

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--|
| Inner Casing | 0 | 7 | 4 | Schedule 40 NR |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 7 | 17 | 4 | Schedule 40 PVC |
| Tail Piece | | | | |
| Gravel Pack | 5 | 18 | 12 | #2 Sand |
| Annular Seal/Grout | 0 | 5 | 12 | 6" Retonite 4'6" Portland
Neat cement |
| Method of Grouting | gravelly | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

See Attached Logs

KEY-TECH

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Ronald Cook

Date

3/22/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

ATLAS COORA 29-13-842

PERMIT # 29-28781

| KEY - TECH | | | | WELL INSTALLATION LOG | | | | WELL NO: MW-1 | |
|--|-----------------|---------------|--|-----------------------|--|---------|-----------------------------|------------------------|--|
| PROJECT HIGHWAY DISTRICT #3/#6, Pine Brook Rd., Tinton Falls | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, MILLBURN, NEW JERSEY 89.13.842 | | | | | | | | JOB NO.: 93-14 | |
| BORING CONTRACTOR KEY-TECH 29-28781 | | | | | | | | ELEVATION: | |
| GROUND WATER | | | | CAS. | SAMP. | CORE | TUBE | DATUM: | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | | DATE START: 3-10-93 | |
| 3-10-93 | 10:00 | 11'1" | In | DIA. | 3 1/4" | 2" | | DATE FINISHED: 3-10-93 | |
| | | | | WT. | | 140# | | DRILLER: R. Cook | |
| | | | | FALL | | 30" | | REP J. Gallagher | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | 12"
4" | |
| 1 | | S-1 | 2 | | Brown medium to fine SAND, some Gravel | | Flush Mounted Cast Iron Cap | | |
| 2 | | | 2 | | 0'0" - 2'0" | | Cement Grout | | |
| 3 | | S-2 | 2 | | Orange brown medium to fine SAND | | PVC Casing | | |
| 4 | | | 4 | | 2'0" - 4'0" | | Bentonite Seal | | |
| 5 | | S-3 | 4 | | do | | | | |
| 6 | | | 5 | | 4'0" - 6'0" | | | | |
| 7 | | S-4 | 4 | | do | | | | |
| 8 | | | 5 | | 6'0" - 8'0" | | | | |
| 9 | | S-5 | 4 | | Brown medium to fine SAND trace of Silt | | | | |
| 10 | | | 5 | | 8'0" - 10'0" | | | | |
| 11 | | S-6 | 5 | | Brown medium to fine SAND | | PVC Screen | | |
| 12 | | | 5 | | 10'0" - 12'0" | | | | |
| 13 | | S-7 | 6 | | do | | Sand Pack | | |
| 14 | | | 4 | | 12'0" - 14'0" | | | | |
| 15 | | S-8 | 3 | | Orange brown medium to fine SAND | | | | |
| 16 | | | 4 | | 14'0" - 16'0" | | | | |
| 17 | | S-9 | 5 | | do | | Bottom Plug | | |
| 18 | | | 6 | | 16'0" - 18'0" | | | | |
| 19 | | | | | TEST BORING COMPLETE @ 18'0" | | | | |
| 20 | | | | | * Soil descriptions are by drillers visual examination of soil samples obtained during test boring procedures. | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

9

MONITORING WELL RECORD

Well Permit No. 29 - 28782
Atlas Sheet Coordinates 29 : 13 : 842

OWNER IDENTIFICATION - Owner MONMOUTH COUNTY OF
Address KOZLOSKI RD. & CENTER ST.
City FREEHOLD State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW2
County Monmouth Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address Highway District #3/6 Pine Brook Rd

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 4/30/93
Regulatory Program Requiring Well UST Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Killam Associates Tele. # 201 379 3400

WELL CONSTRUCTION

Total depth drilled 18 ft.

Well finished to 17 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?

☒ Yes ☐ No Cast iron cap

Static water level after drilling 7'2" ft.

Water level was measured using Tape

Well was developed for 1 hours at 4 gpm

Method of development Submersible pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity 10 gpm

Pump type: Gravel

Drilling Method Hollow Stem Auger

Drilling Fluid None Type of Rig Mobile Drill/B47

Name of Driller Ronald Cook

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. F1603

Name of Drilling Company _____

KEY-TECH

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Ronald Cook

Date

5/20/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--|
| Inner Casing | 0 | 7 | 4 | Schedule 40 PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 7 | 17 | 4 | 1020 Schedule 40 PVC |
| Tail Piece | | | | |
| Gravel Pack | 5 1/2 | 18 | 12 | #2 well sand |
| Annular Seal/Grout | 0 | 5 1/2 | 12 | 6" Bokonite Seal
5' Portland Cement |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

See Attached Logs

Atlas COORD #29-13-842

Permit #29-28782

| KEY - TECH | | | | WELL INSTALLATION LOG | | | | WELL NO: MW-2 | |
|---|-----------------|---------------|--|-----------------------|--|---------|--------------------------------|------------------------|--|
| PROJECT HIGHWAY DISTRICT #3/6, TINTON FALLS, MONMOUTH CO. | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, 25 E. Willow St., Millburn, NJ | | | | | | | | JOB NO.: 93-36 | |
| BORING CONTRACTOR KEY - TECH 29-13-842 29-28782 | | | | | | | | ELEVATION: | |
| GROUND WATER | | | | CAS. | SAMP. | CORE | TUBE | DATUM: | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | | DATE START: 4-30-93 | |
| 4-30-93 | 10:00 | 7'2" | In | DIA. | 3 1/4 | 2" | | DATE FINISHED: 4-30-93 | |
| | | | | WT. | | 140# | | DRILLER: R. Cook | |
| | | | | FALL | | 30" | | REP J. Gallagher | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | | |
| 1 | | | | | | | Flush Mounted
Cast Iron Cap | | |
| 2 | | | | | | | Cement
Grout | | |
| 3 | | | | | | | PVC Casing | | |
| 4 | | | | | | | Bentonite
Seal | | |
| 5 | | | 4 | | | | | | |
| 6 | | S-1 | 3 | | Olive brown medium to
fine SAND | | | | |
| 7 | | | 3 | | 5'0" - 7'0" | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | 5 | | | | | | |
| 11 | | S-2 | 6 | | do | | | | |
| 12 | | | 5 | | 10'0" - 12'0" | | PVC Screen | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | 3 | | | | | | |
| 16 | | S-3 | 3 | | Olive brown fine SAND | | Sand Pack | | |
| 17 | | | 4 | | 15'0" - 17'0" | | Bottom Plug | | |
| 18 | | | 5 | | TEST BORING COMPLETE @ 17'0" | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | * Soil descriptions are by
drillers visual examinat-
ion of soil samples
obtained during test boring
procedures. | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

12/30/92

E

MONITORING WELL RECORD

Well Permit No. 29-29189Atlas Sheet Coordinates 29 13 889

OWNER IDENTIFICATION - Owner

Address WHITE TOWER CORPORATION
1129 HOPE ROAD
City ASBURY PARK State NT Zip Code

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. _____

County MONMOUTH Municipality TINTON FALLS BO Lot No. 5.02 Block No. 115Address NOTE: THIS WELL IS CHANGE OF USE & DRILLED UNDER PERMIT # 29-26724
TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 02/03/93Regulatory Program Requiring Well CATHODIC PROTECTION Case I.D. # NACONSULTING FIRM/FIELD SUPERVISOR (if applicable) N/A Tele. # _____

WELL CONSTRUCTION

Total depth drilled 87 ft.Well finished to 87 ft.

Borehole diameter:

Top 8.5 in.Bottom 8.5 in.Well was finished: ☒ above grade☐ flush mounted

If finished above grade, casing

height (stick up) above land

surface 6" A

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 17 ft.Water level was measured using WETTED TAPEWell was developed for 1 hours at 40 gpmMethod of development AIR LIFTWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpm

Pump type: _____

Drilling Method MUD ROTARYDrilling Fluid BENTONITE Type of Rig MOBILE DRILLName of Driller DAVID PRIMOSTHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. M1041

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|---------------------|
| Inner Casing | | | | |
| Outer Casing
(Not Protective Casing) | 0 | 72 | 4" | PVC Sched 40 |
| Screen
(Note slot size) | 72 | 82 | 4" | PVC Sched 40 x .010 |
| Tail Piece | 82 | 87 | 4 | PVC Sched 40 |
| Gravel Pack | 61 | 87 | 8.5 | Mud # 0 |
| Annular Seal/Grout | Surface | 61 | | 200 MESH BENTONITE |
| Method of Grouting | Pressure Thin Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

NOTE: original Drilling Log filed w/
Completed Well Report 29-26724
w/ 2" CORN WIRE FOR
L.S. 7 grouting
4" WIRE SEAL
INSIDE OF CASING SEALED
w/ BENTONITE grout
Pressure thin tremie

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature David PrimostDate 02/03/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

2/4/93

2/4/93

4

MONITORING WELL RECORD

Well Permit No. 29 29421
Atlas Sheet Coordinates 29 13 852

Redacted - Privacy Act

OWNER IDENTIFICATION - Owner

Address 40 PARK ROAD
City TINTON FALLS State NJ Zip Code 07724

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. MW-1

County Monmouth Municipality TINTON FALLS BO Lot No. 21.02 Block No. 114.01
Address 46 Park Road

TYPE OF WELL (as per Well Permit Category) MONITORING

Date well completed 4 / 8 / 93

Regulatory Program Requiring Well ECRA

Case I.D. # 91703

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

Tele. #

WELL CONSTRUCTION

Total depth drilled 14 ft.

Well finished to 13 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☐ above grade

☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?

☒ Yes ☐ No

Static water level after drilling 3.5 ft.

Water level was measured using M-Scope

Well was developed for 1 hours at 5 gpm

Method of development Pumping

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HSA

Drilling Fluid NONE Type of Rig Mobile B-53

Name of Driller Len Stone

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 51866

Name of Drilling Company JAMES C. ANDERSON ASSOC. INC.

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | 0 | 3 | 4 | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 3 | 13 | 4 | 1.00 PVC |
| Tail Piece | | | | |
| Gravel Pack | 2.5 | 14 | | * 1 |
| Annular Seal/Grout | 0 | 2.5 | | Cement-bentonite |
| Method of Grouting | Gravity Placement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0-14 Dark Green M-C
SAND

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Len Stone JD

Date 5-10-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

9

MONITORING WELL RECORD

Well Permit No. 29 .29607
Atlas Sheet Coordinates 29 : 13 : 842OWNER IDENTIFICATION - Owner MONMOUTH COUNTY
Address KOZLOSKI RD. & CENTER STREET
City FREEHOLD State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW3
County Monmouth Municipality TINDEN FALLS BO Lot No. 21.01 Block No. 97
Address Highway District #3/6 Pine Brook RdTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 5/3/93
Regulatory Program Requiring Well UST Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Killam Associates Tele. # 2013793400

WELL CONSTRUCTION

Total depth drilled 18' ft.Well finished to 17 1/2 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☒ Yes ☐ No Cast iron capStatic water level after drilling 8'4" ft.Water level was measured using TapeWell was developed for 1 hours at 5 gpmMethod of development SubmersibleWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity 10 gpmPump type: GouldDrilling Method Hollow Stem AugerDrilling Fluid None Type of Rig Mobile Drill B47Name of Driller Ronald CookHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. J1603

Name of Drilling Company _____

KEY-TECH

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Ronald CookDate 5/20/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

Atlas COORD #29.13.842 Permit #2929607

| KEY - TECH | | | | WELL INSTALLATION LOG | | | | WELL NO: MW-3 | |
|---|-----------------|---------------|--|-----------------------|-------------------------------------|---------|--------------------------------|-----------------------|----|
| PROJECT HIGHWAY DISTRICT #3/6, TINTON FALLS, MONMOUTH CO. | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, 25 E. WILLOW ST., MILLBURN, NJ | | | | | | | | JOB NO.: 93-36 | |
| BORING CONTRACTOR KEY - TECH | | | | | | | | ELEVATION: | |
| GROUND WATER | | | | CAS. | SAMP. | CORE | TUBE | DATUM: | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | | DATE START: 5-3-93 | |
| 5-3-93 | 9:15 | 8'4" | In | DIA. | 3 1/4 | 2" | | DATE FINISHED: 5-3-93 | |
| 29.13.842 | | | | WT. | | 140# | | DRILLER: R. Cook | |
| 2929607 | | | | FALL | | 30" | | REP J. Gallagher | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | 12" | 4" |
| 1 | | | | | | | Flush Mounted
Cast Iron Cap | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | Cement
Grout | | |
| 4 | | | | | | | PVC Casing | | |
| 5 | | | | | | | | | |
| 6 | | S-1 | 7 | | Olive yellow medium to
fine SAND | | Bentonite
Seal | | |
| 7 | | | 8 | | | | | | |
| 8 | | | 9 | | 5'0" - 7'0" | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | S-2 | 4 | | Olive brown medium to fine
SAND | | | | |
| 12 | | | 5 | | 10'0" - 12'0" | | PVC Screen | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | S-3 | 3 | | Olive brown fine SAND | | Sand Pack | | |
| 17 | | | 5 | | | | | | |
| 18 | | | 4 | | 15'0" - 17'0" | | Bottom Plug | | |
| 19 | | | 4 | | | | | | |
| 20 | | | | | TEST BORING COMPLETE @ 17'0" | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

MONITORING WELL RECORD

Well Permit No. 29 - 29623
Atlas Sheet Coordinates 29 : 13 : 842 ☐OWNER IDENTIFICATION - Owner MONMOUTH COUNTY
Address KOZLOSKI ROAD & CENTER ST.
City FREEHOLD State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 2A
County _____ Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address Highway District #3/6 Pine Brook RdTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 5/4/93
Regulatory Program Requiring Well UST Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) William Associates Tele. # 2013793400

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 14 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☒ Yes ☐ No Cast iron capStatic water level after drilling 6'7" ft.Water level was measured using tapeWell was developed for 1 hours at 3 gpmMethod of development Submersible pumpWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity 10 gpmPump type: GouldDrilling Method Hollow Stem AugerDrilling Fluid None Type of Rig Mobile Drill B47Name of Driller Ronald CookHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. J1603

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.)
[From land surface] | Diameter
(inches) | Type and Material |
|---|--|---|----------------------|--|
| Inner Casing | 0 | 4 | 4 | schedule 40 PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 4 | 14 | 4 | 020
schedule 40 PVC |
| Tail Piece | | | | |
| Gravel Pack | 3 1/2 | 15 | 12 | #2 well sand |
| Annular Seal/Grout | 0 | 3 1/2 | 12 | 1/2' Bitumite Seal
3' Portland Cement |
| Method of Grouting | | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)

See Attached Logs

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Ronald Cook

Date

5/20/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

Atlas Corp #29-13:842 Permit #29-29623

| KEY- TECH | | | WELL INSTALLATION LOG | | | | | WELL NO: MW-2A | |
|---|-----------------|---------------|--|--------|------------------------------------|---------|--------------------------------|-------------------|--|
| PROJECT HIGHWAY DISTRICT #3/6, TINTON FALLS, MONMOUTH CO. | | | | | | | | SHEET NO.: 1 OF 1 | |
| CLIENT KILLAM ASSOCIATES, 25 E. WILLOW ST., MILLBURN, NJ | | | | | | | | JOB NO.: 93-36 | |
| BORING CONTRACTOR KEY - TECH | | | | | | | | ELEVATION: | |
| GROUND WATER | | | CAS. | SAMP. | CORE | TUBE | DATUM: | | |
| DATE | TIME | DEPTH | CASING | TYPE | HSA | SS | DATE START: 5-4-93 | | |
| 5-4-93 | 10:30 | 6'7" | In | DIA. | 3 1/4 | 2" | DATE FINISHED: 5-4-93 | | |
| 29.13.842 | | | | WT. | | 140# | DRILLER: R. Cook | | |
| 292923 | | | | FALL | | 30" | REP J. Gallagher | | |
| DEPTH
FT. | CASING
BLOWS | SAMPLE
NO. | BLOWS
ON
SAMPLE
SPOON
PER 6" | SYMBOL | * STRATIGRAPHY | REMARKS | WELL | | |
| 1 | | | | | | | Flush Mounted
Cast Iron Cap | | |
| 2 | | | | | | | Cement | | |
| 3 | | | | | | | Grout | | |
| 4 | | | | | | | PVC Casing | | |
| 5 | | | | | | | Bentonite
Seal | | |
| 6 | | S-1 | 4 | | Olive brown medium to
fine SAND | | | | |
| 7 | | | 3 | | 5'0" - 7'0" | | | | |
| 8 | | | 3 | | | | PVC Screen | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | Sand Pack | | |
| 11 | | S-2 | 5 | | do | | | | |
| 12 | | | 6 | | | | | | |
| 13 | | | 5 | | | | | | |
| 14 | | | 5 | | | | Bottom Plug | | |
| 15 | | | | | | | | | |
| 16 | | | | | TEST BORING COMPLETE @ 15'0" | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |

* Soil descriptions are by
drillers visual examin-
ation of soil samples
obtained during test
boring procedures.

MONITORING WELL RECORD

2500

Well Permit No. 29 - 29742
Atlas Sheet Coordinates 29 : 13 : 827OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 167 - DEH ENVIR.
City FORT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. NW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/8/93
Regulatory Program Requiring Well UST Case I.D. # C-91-2842
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 25 ft.Well finished to 25 ft.

Borehole diameter:

Top 12" in.Bottom 12" in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 3 ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 7 ft.Water level was measured using M ScopeWell was developed for 1 hours at 3 gpmMethod of development submersibleWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity — gpmPump type: —Drilling Method HSADrilling Fluid — Type of Rig Mobil B-57Name of Driller Robert M. HesseHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) (None) D C B AN.J. License No. 1051M

Name of Drilling Company _____

DIRECT ENVIRONMENTAL INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Robert M. HesseDate 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 5' | 4" | Settled in PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| 1010 Screen
(Note slot size) | 5' | 25' | 4" | " " " |
| Tail Piece | THD | CAP | 4" | PVC |
| Gravel Pack | 3' | 25' | 1 1/2" | #1 MONIE |
| Annular Seal/Grout | 0' | 3' | 12" | Neat Cement |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0-10 - well sorted sand (yellow)
w/ fines
10-25 - grading to coarser sand
with some clay at
(15-20') and a little
gravel.

MONITORING WELL RECORD

Well Permit No. 29 29743
Atlas Sheet Coordinates 29 : 13 : 827

OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 187 - DR. ENVIR.
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. WW-2
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/9/93
Regulatory Program Requiring Well UST Case I.D. # C-91-2842

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 25 ft.

Well finished to 25 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 3 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 7 ft.

Water level was measured using u scope

Well was developed for 1 hours at 3 gpm

Method of development Submersible

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HSA

Drilling Fluid _____ Type of Rig Mobil B-57

Name of Driller Robert U. Hesse

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1051

Name of Drilling Company DIRECT ENVIRONMENTAL INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0' | 5' | 4" | Sched 40 Pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| 1010 Screen
(Note slot size) | 5' | 25' | 4" | " " |
| Tail Piece | TKO | Cap | 4" | Pvc |
| Gravel Pack | 3' | 25' | 12" | #1 Monie |
| Annular Seal/Grout | 0' | 3' | 12" | Neat Cement |
| Method of Grouting | GAMITY | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-12 - well sorted sand w/ some
fines
12-20 - sand with some clay
throughout with some
gravel
20-25 - med to fine sand with
some clay

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Robert U. Hesse

Date

7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 28744
Atlas Sheet Coordinates 29 : 13 : 827OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address BLDG. 167 - DEH ENVIR.
City PORT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. 11W-3
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/10/93
Regulatory Program Requiring Well UST Case I.D. # C-91-2842
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 25 ft.Well finished to 25 ft.

Borehole diameter:

Top 12" in.Bottom 12" in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 3 ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 7 ft.Water level was measured using USCOPWell was developed for 1 hours at 3 gpmMethod of development SubmersibleWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity — gpmPump type: —Drilling Method HSADrilling Fluid — Type of Rig Mobil B-57Name of Driller Robert M. HesserHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) (None) D C B AN.J. License No. 1051M

Name of Drilling Company _____

DIRECT ENVIRONMENTAL INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Robert M. HesserDate 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 29745
Atlas Sheet Coordinates 29 : 13 : 827

OWNER IDENTIFICATION - Owner US ARMY - FT. MONMOUTH
Address Bldg. 167 - DEH ENVIR.
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-4
County MONMOUTH Municipality OCEANPORT BOGO Lot No. N/A Block No. N/A
Address Bldg 2500

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/10/93
Regulatory Program Requiring Well DEP Case I.D. # C-91-2842

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 25 ft.

Well finished to 25 ft.

Borehole diameter:

Top 12" in.

Bottom 12" in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 3 ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 7 ft.

Water level was measured using M-SCOPE

Well was developed for 1 hours at 3 gpm

Method of development Submersible

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HSA

Drilling Fluid _____ Type of Rig Mobil B-57

Name of Driller Robert M Hesse

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1051 M

Name of Drilling Company _____

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|--------------------------------------|---|-----------------------|-------------------|-------------------|
| Inner Casing | 0' | 5' | 4" | Screen 4" PVC |
| Outer Casing (Not Protective Casing) | | | | |
| 1010 Screen (Note slot size) | 5' | 25' | 4" | " " " |
| Tail Piece | THO | CAP | 4" | PVC |
| Gravel Pack | 3' | 25' | 12" | #1 MONIE |
| Annular Seal/Grout | 0' | 3' | 12" | NEAT CEMENT |
| Method of Grouting | GRAVITY | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0-15 - well sorted yellow sand with some fines
15-25 - increasing gravel + clay mixed with sand (med to fine)

DIRECT ENVIRONMENTAL, INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature _____

Date 7-26-93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

100 LAUMAN LANE • BETHPAGE, N. Y. 11714 • (516) 931-2305

ENVIRONMENTAL ANALYSIS

TO _____

SOURCE OF SAMPLE

PVC Container Corporation

Esion Town, New Jersey

COLLECTED 11/19/69 RECEIVED 11/20/69 REPORTED 11/20/69

SAMPLING POINT

TIME

| | | |
|---|--|--|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

[illegible]

REMARKS

LAB. NO. **C-8526**

COLLECTED BY JTK

ANALYZED BY ELK

LAUMAN LABORATORIES, INC.

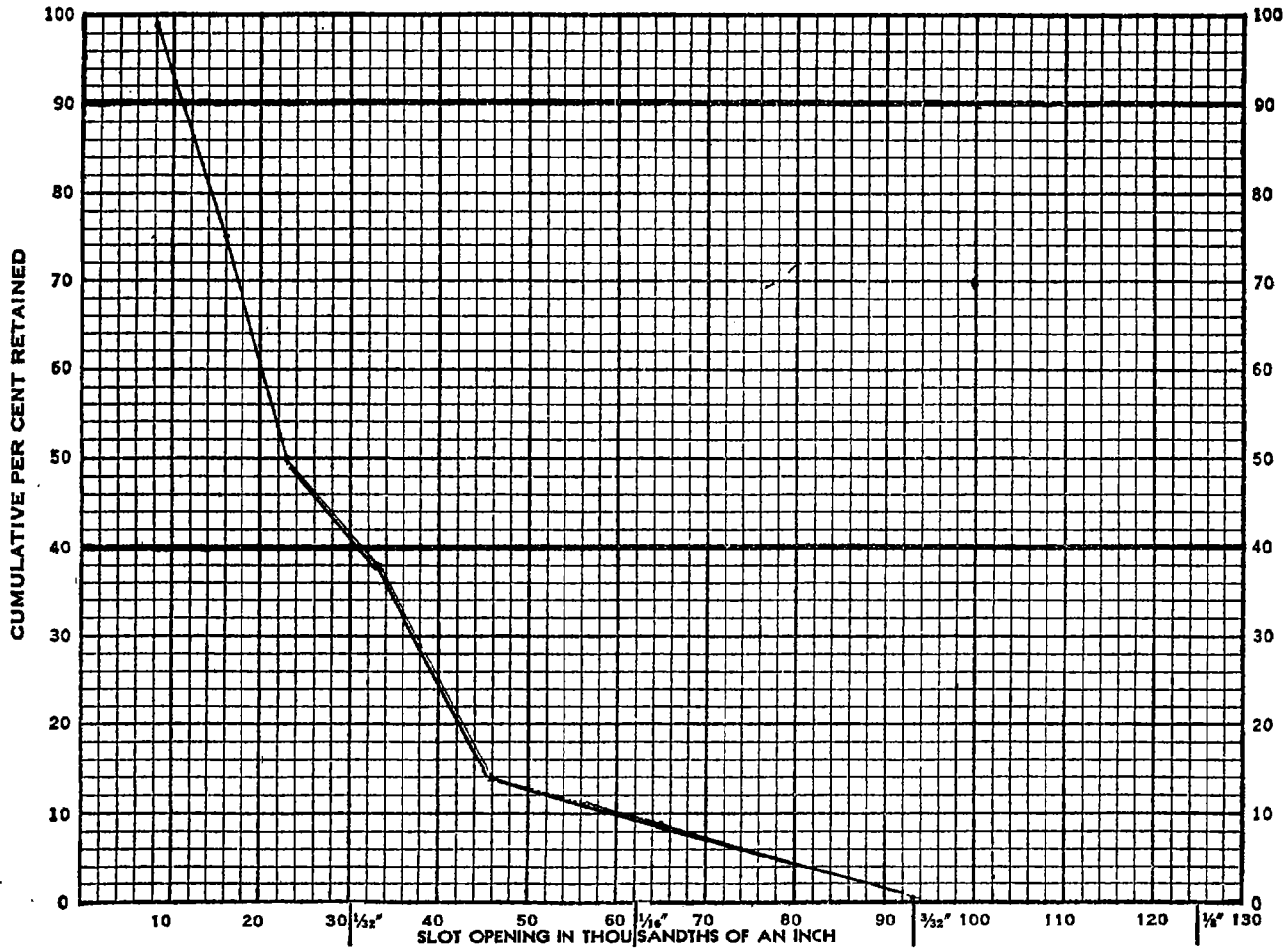
V. B. Anderson
DIRECTOR

29.13.828
SAND ANALYSIS

EDWARD E. JOHNSON, INC. 29.13.828

SAINT PAUL, MINN.

Sample sent in by J.T. KEARNS Date Nov. 19, 1969
Address SEA GIRT N.J.
From well of P.V.C. CONTAINER CORP. EATONTOWN N.J.
Remarks DEPTH 18'-24'



| SIEVE OPENINGS | CUMULATIVE PER CENT RETAINED | |
|------------------|------------------------------|-----|
| | WGT | PCT |
| .131 | | |
| .093 | | |
| .065 | 9 | 9 |
| .046 | 14 | 14 |
| .033 | 38 | 38 |
| .023 | 50 | 50 |
| .016 | 75 | 75 |
| .008 | 99 | 99 |
| .005 | + | |
| SCREEN SLOT PASS | 100 | 100 |

NOTES: _____

RECOMMENDED SCREEN: DIA. _____ IN. LENGTH _____ FT.

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS.

29.13.828

Date 11-15-69

TO P.V.C. CORPORATION
INDUSTRIAL WAY WEST
EATONTOWN N.J.
ATT. MR. ANDRES LIPPENS

RE: TEST BORING PROGRAM
FOR RECHARGE AVAILABILITY
29.13.828

GENTLEMEN:-

FOLLOWING IS A REPORT ON THE TEST BORING PROGRAM CARRIED OUT ON FRIDAY NOV. 14TH & SAT. NOV. 15TH, 1969 IN THE AREA WEST OF YOUR PLANT:

A 4" DIAM. STEEL CASING WAS BAILED INTO A 6 FT DEEP AUGERED HOLE TO A TOTAL DEPTH OF 28 FEET BELOW GRADE

AN EXCELLENT WATER-BEARING (AND RECHARGE) SAND, GRITS & SMALL GRAVEL FORMATION WAS ENCOUNTERED BETWEEN THE DEPTHS OF 17 FT AND 24 FT. BELOW 24 FT THE FORMATION WAS WATER BEARING, BUT SLIGHTLY CLAYEY.

AN 1 $\frac{1}{4}$ " STAINLESS STEEL WELL POINT WAS INSERTED IN THE 4" CASING WITH 1 $\frac{1}{4}$ " STEEL GALV. PIPE BROUGHT UP TO ABOVE GRADE, AND THIS WELL WAS DEVELOPED AND PUMPED AT A MAXIMUM CAPACITY OF 40 GPM ON SAT. NOV. 15TH. SLOT SIZE OF SCREEN WAS .025". LENGTH 36".

SUBSEQUENTLY, A RECHARGE TEST WAS MADE WITH CITY WATER AT A FLOW RATE OF 8.6 GPM OVER A DURATION OF ONE HOUR. MEASUREMENT OF BUILD-UP IN WATER LEVEL WAS MADE BY ELECTRIC TELL-TALE BETWEEN THE 4" AND THE 1 $\frac{1}{4}$ " PIPES. AFTER 15 MIN OF CONSTANT FLOW THE WATER LEVEL ROSE FROM THE STATIC LEVEL OF 5' 6" TO WITHIN 17" OF GRADE AND HELD THERE FOR THE BALANCE OF ONE HOUR TOTAL TEST

29.13.828

Date 11-15-69

TO RVC Corp.

RE: TEST BORING PROGRAM
FOR RECHARGE AVAILABILITY
29.13.828

(2)

ON THE BASIS OF THE FOREGOING INFORMATION, I RECOMMEND THAT THREE (3) 6" X 2" GRAVEL PACKED WELLS BE INSTALLED WITH SIX (6) FEET OF STAINLESS STEEL SCREEN, #40 SLOT (0.40"). AFTER GRAVEL PACKING & DEVELOPING TO STABILIZATION THE 6" CASING IS TO BE REMOVED AND THE BALANCE OF THE ANNULAR SPACE FILLED WITH IMPERVIOUS MATERIAL.

THESE WELLS SHOULD BE ENCASED IN A CEMENT BLOCK ACCESS PIT, WITH TOP OF WELL FINISHED WITH A TEE AND PLUGGED TOP. WELLS SHOULD BE MANIFOLDED SO THAT THE RECHARGE WATER IS EVENLY DISTRIBUTED THRUOUT THE FORMATION ENCOMPASSED.

AN ANALYSIS OF THE WATER WILL BE FORWARDED AS SOON AS RECEIVED FROM THE LABORATORY, AS WILL A COPY OF THE SAND ANALYSIS.

A BUDGET ESTIMATE ON THE COMPLETE RECHARGE SYSTEM WITH MANIFOLD PIPING AND CONNECTED TO THE DISCHARGE LINE FROM YOUR EXISTING PUMP WOULD BE FROM \$1500⁰⁰ TO \$1600⁰⁰

RESPECTFULLY SUBMITTED

Joseph T. Kearns

JOSEPH T. KEARNS
GROUND WATER CONSULTANT
SEAGIAT NJ

SUPPLY WELL LOG

29.13.828

WPCO No.

P.L.C. CONTRACTOR Co.

534 Fairview Way State

Date 11-14-69

Completed 11-15-69

Driller E. Richmond

Measured from Grade

G.V.S. No.

Ft. In.

Above Ft. In. Below Ft. In.

Level 5 ft 6 in

Elevation Ft. 29.13.828

| | STRATUM | | TEMPERATURE | |
|--|-----------|-------|-------------|-------|
| | Thickness | Depth | Sand | Water |
| 1' Greenish Sand. Med. Fine | 1 | 1' | | |
| 1' Greenish Sand w/ med. brownish | 1 | 2' | | |
| Under mixed med. fine | | | | |
| 3' Brownish Sand. Med. Fine | 1 | 3' | | |
| 4' Brownish Sand. Med. Fine | 1 | 4' | | |
| 1' Med. to Greenish. Med. Fine | 1 | 5' | | |
| 1' Greenish Sand. Finer med. | | | | |
| 1' Greenish Sand. Med. Fine | | | | |
| 1' Sand. Coarse sand. Water | | | | |
| Level 6 ft 1 in | 1 | 7' | | |
| COPY AUGER SAMPLES TO | | | | |
| 1' Greenish (pm) Coarse Sand | | | | |
| 1' Dark pebbles mixed w/ sand | 1 | 8' | | |
| 1' Sand bit w/ med. coarse | | | | |
| 1' Fine gravel med. | 1 | 9' | | |
| 1' Greenish Gray fine to coarse | | | | |
| 1' Mixed. Noticed clayey bottom | 1 | 10' | | |
| 1' Water. Wouldn't run much fast | | | | |
| 1' Same as above | 1 | 11' | | |
| 1' 1/2' Gr. Gray sand fine to coarse | 1 | 12' | | |
| 1' 3/4' Same w/ white stone to 3/16" | 1 | 13' | | |
| 1' Same w/ more stone | 1 | 14' | | |
| 1' 1/2' Gr. Gray med. sand w/ 1/4" white | | | | |
| 1' Found sand w/ 1/4" white | | | | |

WELL LOG

WFOC

29-13-828

Date Started _____ Completed _____ Driller _____
 Diameter _____ In. Measured from Gauge ☐ Yes ☐ No
 Depth _____ Ft. In. Above _____ Ft. In. Below _____ Ft. In.
 Surface Level _____ Ft. In. Elevation _____ Ft. 29.13.828

| | STRATUM | | TEMPERATURE | |
|---|-----------|-------|-------------|-------|
| | Thickness | Depth | Sand | Water |
| 5-16 DK Gray Med. coarse sand
to coarse gravel | 1 | 16' | | |
| 6-19 Same with large stone | 1 | 17' | | |
| 7-18 Gray sand more even | 1 | 18' | | |
| 8-19 Sand - still sharp | 1 | 19' | | |
| 9-20 Gray coarse sand mixed
with white stone | 1 | 20' | | |
| 10-21 Gray med. coarse sand
with white stone | 1 | 21' | | |
| 11-22 Gray coarse sand w/stone | 1 | 22' | | |
| 12-23 Gray coarse sand more
even, less stone, more fine,
muddy water runs off | 1 | 23' | | |
| 13-24 Gray sand more even | 1 | 24' | | |
| 14-25 Same as above less sharp | 1 | 25' | | |
| 15-26 Still even sand but
less sharp than 24' | 1 | 26' | | |
| Drilled to 30' no change | | | | |
| Test stopped 2 1/2' west of | | | | |
| 30.5' @ 30' depth - 1/2' of sand | | | | |
| increased to 1.8 sec 5' in | | | | |
| 35' 1/2' GPD | | | | |

868

E

MONITORING WELL RECORD

Well Permit No. 29 29752
Atlas Sheet Coordinates 29 13 854 ☐OWNER IDENTIFICATION - Owner WORZALLA PUBLISHING CO.
Address 556 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____WELL LOCATION - ~~XXXXXXXXXX~~ please give address. Owner's Well No. mw1
County MONMOUTH Municipality EATONTOWN BORO Lot No. 63 Block No. 111
Address XXXXXXTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/14/93
Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 10 ft.Well finished to 10 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3 ft.Water level was measured using m-scopeWell was developed for 5 hours at 1 gpmMethod of development BailerWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method ASADrilling Fluid _____ Type of Rig Mobile B-53Name of Driller Ken CoxHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D B AN.J. License No. 1145Name of Drilling Company M & R SOIL INVESTIGATIONS, INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.)
[From land surface] | Diameter
(inches) | Type and Material |
|---|--|---|----------------------|-------------------|
| Inner Casing | 0 | 5 | 4 | PVC Sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 10 | 4 | PVC Sch 40 200 |
| Tail Piece | | | | |
| Gravel Pack | 3 | 10 | 12 | #2 marie |
| Annular Seal/Grout | 0 | 3 | 12 | Portland Cement |
| Method of Grouting | Gravity Displacement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0-5 C-M-F Brown Sand
5-10 C-M-F Green SandI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Ken Cox

Date

6/22/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

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MONITORING WELL RECORD

Well Permit No. 29 29753
Atlas Sheet Coordinates 29 13 854 ☐OWNER IDENTIFICATION - Owner WORZALLA PUBLISHING CO.
Address 556 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____WELL LOCATION [redacted] Owner's Well No. MW2
County MONMOUTH Municipality EATONTOWN BORO Lot No. 63 Block No. 111
Address [redacted]TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 6/14/93
Regulatory Program Requiring Well _____ Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 10 ft.Well finished to 10 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3 ft.Water level was measured using m-scopeWell was developed for 5 hours at 1 gpmMethod of development BailerWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity = gpm

Pump type: _____

Drilling Method HSADrilling Fluid _____ Type of Rig Mobile B-53Name of Driller Ken CoxHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1145Name of Drilling Company M & R SOIL INVESTIGATIONS, INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 5 | 4 | PVC Sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 10 | 4 | PVC Sch 40.020 |
| Tail Piece | | | | |
| Gravel Pack | 3 | 10 | 12 | #2 Mone |
| Annular Seal/Grout | 0 | 3 | 12 | Portland Neat |
| Method of Grouting | Gravity Displacement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0-5 C-M-F Brown Sand
5-10 C-M-F Green SandI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Ken CoxDate 6/22/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

6

MONITORING WELL RECORD

Well Permit No. 29 - 29754
Atlas Sheet Coordinates 29 : 13 : 854

OWNER IDENTIFICATION - Owner WORZALLA PUBLISHING CO.
Address 556 INDUSTRIAL WAY WEST
City EATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. M123
County MORRIS Municipality EATONTOWN BORO Lot No. 63 Block No. 111
Address _____

TYPE OF WELL (as per Well Permit Categories) _____ Date well completed 6.14.93
Regulatory Program Requiring Well MONITORING Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 10 ft.

Well finished to 10 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 3 ft.

Water level was measured using m-scope

Well was developed for 5 hours at 1 gpm

Method of development Bailer

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HSA

Drilling Fluid _____ Type of Rig Mobile B-53

Name of Driller Ken Cox

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. 1145

Name of Drilling Company _____

M & R SOIL INVESTIGATIONS, INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Ken Cox

Date

6/20/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 5 | 1 | PVC Sch 40 |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 10 | 4 | PVC Sch 40 0.020 |
| Tail Piece | | | | |
| Gravel Pack | 3 | 10 | 12 | #2 Marie |
| Annular Seal/Grout | 0 | 3 | 12 | Portland Neat |
| Method of Grouting | Gravity Displacement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

0-5 C-M-F Brown Sand
5-10 C-M-F Green Sand

E

MONITORING WELL RECORD

Well Permit No. 29 30115
Atlas Sheet Coordinates 29 : 13 : 912 ☐OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code 07960WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 36
County MONMOUTH Municipality EATONTOWN BORO Lot No. 26 Block No. 64
Address 118 Highway 35 Eatontown N.J. 07742TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8/25/93
Regulatory Program Requiring Well RCRA Case I.D. # 86688CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM/NE/D. Scari Tele. # (516) 921-4300

WELL CONSTRUCTION

Total depth drilled 12.2 ft.Well finished to 12.2 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3.9 ft.Water level was measured using tapeWell was developed for .5 hours at 3 gpmMethod of development centrifugalWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-61Name of Driller Steven WolfHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1579Name of Drilling Company AQUIFER DRILLING & TESTING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------------|
| Inner Casing | <u>0</u> | <u>2.2</u> | <u>4</u> | <u>Sch. 40 PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Screen
(Note slot size) | <u>2.2</u> | <u>12.2</u> | <u>4</u> | <u>Sch 40 PVC .02</u> |
| Tail Piece | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>1.0</u> | <u>12.2</u> | <u>11</u> | <u>No. 2 Morie</u> |
| Annular Seal/Grout | <u>0</u> | <u>1.0</u> | <u>11</u> | <u>Cement/bentonite</u> |
| Method of Grouting | <u>gravity placement</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0-12' medium fine light
brown sand + silt
wet @ 3.9'I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steven WolfDate 9/10/93 C

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 30116
Atlas Sheet Coordinates 29 : 13 : 912OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code 07960WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 37
County MONMOUTH Municipality EATONTOWN BORO Lot No. 28 Block No. 64
Address 118 Highway 35 Eatontown, N.J. 07742TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8/25/93
Regulatory Program Requiring Well RCRA Case I.D. # 86688
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM NE/D Scari Tele (516) 921 4300

WELL CONSTRUCTION

Total depth drilled 26 ft.Well finished to 26 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface n/a ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 4 ft.Water level was measured using tapeWell was developed for 5 hours at 3 gpmMethod of development CentrifugalWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity n/a gpmPump type: n/aDrilling Method HSADrilling Fluid none Type of Rig Mobile B-61Name of Driller Steven WolfHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1579Name of Drilling Company AQUIFER DRILLING & TESTING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 16 | 4 | Sch 40 Arc |
| Outer Casing
(Not Protective Casing) | - | - | - | - |
| Screen
(Note slot size) | 16 | 26 | 4 | Sch 40 Arc. 12 |
| Tail Piece | - | - | - | - |
| Gravel Pack | 14 | 26 | 11 | No. 2 morie |
| Annular Seal/Grout | 0 | 14 | 11 | Cement/bentonite |
| Method of Grouting | <u>Grout placement Pressure Grouted</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-11' medium light brown
Sand & silt
wet @ 4'

11-26' medium dark
brown sand, trace
silt, trace gravel

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Steven Wolf

Date

9/10/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 30117
Atlas Sheet Coordinates 29 : 13 : 912OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code 07960WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 38
County MONMOUTH Municipality EATONTOWN BORO Lot No. 28 Block No. 84
Address 118 Highway 35 Eatontown NJ 07742TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8/26/93
Regulatory Program Requiring Well RCRA Case I.D. # 86688
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM NE/D. Sciri Tele. # (516) 921 4300

WELL CONSTRUCTION

Total depth drilled 37.5 ft.Well finished to 37.5 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 4 ft.Water level was measured using tapeWell was developed for .5 hours at 3 gpmMethod of development centrifugalWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-61Name of Driller Steven WolfHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1579Name of Drilling Company AGRIER DRILLING & TESTING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------------|
| Inner Casing | <u>0</u> | <u>27.5</u> | <u>4</u> | <u>Sch 40 PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Screen
(Note slot size) | <u>27.5</u> | <u>37.5</u> | <u>4</u> | <u>Sch 40 PVC .02</u> |
| Tail Piece | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>25.5</u> | <u>37.5</u> | <u>11</u> | <u>No. 2 morie</u> |
| Annular Seal/Grout | <u>0</u> | <u>25.5</u> | <u>11</u> | <u>Cement/bentonite</u> |
| Method of Grouting | <u>gravity pressure grout</u> | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)

0-23' medium fine sand
tan, trace silt
wet @ 4'

23-36' medium fine sand
lt. brown, trace silt,
trace gravel

36-37.5' fine black
silt+clay

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steven Wolf Date 9/10/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 30118
Atlas Sheet Coordinates 29 : 13 : 912 ☐OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code 07960WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 33
County MORRIS Municipality EATONTOWN BOBO Lot No. 13 Block No. 64
Address 118 Highway 35 Eatontown N.J. 07742TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8,30,93
Regulatory Program Requiring Well RCRA Case I.D. # 88688CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM NE/D. Sciri Tele. # (516) 921-4300

WELL CONSTRUCTION

Total depth drilled 12 ft.Well finished to 12 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3.2 ft.Water level was measured using tapeWell was developed for 15 hours at 45 gpmMethod of development centrifugalWas permanent pumping equipment installed? ☐ Yes ☐ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-61Name of Driller Steven WolfHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1579Name of Drilling Company AQUIFER DRILLING & TESTING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 2 | 4 | Sch 40 PVC |
| Outer Casing
(Not Protective Casing) | — | — | — | — |
| Screen
(Note slot size) | 2 | 12 | 4 | Sch 40 Pre. 102 |
| Tail Piece | — | — | — | — |
| Gravel Pack | 1 | 12 | 11 | No. 2 morie |
| Annular Seal/Grout | 0 | 1 | 11 | Cement/bentonite |
| Method of Grouting | Gravity Placement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0-12' medium fine,
light brown
silty sand wet @
3.2'I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Steven Wolf

Date

9/10/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 30119
Atlas Sheet Coordinates 29 : 13 : 912 ☐OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 34
County MONMOUTH Municipality EATONTOWN BORO Lot No. 13 Block No. 84
Address 118 Highway 35 Eatontown N.J 07742TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8/30/93
Regulatory Program Requiring Well RCRA Case I.D. # 86688CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM NE/D. Scari Tele. # (516) 921-4300

WELL CONSTRUCTION

Total depth drilled 22 ft.Well finished to 22 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3.2 ft.Water level was measured using tapeWell was developed for 1.5 hours at 3 gpmMethod of development centrifugalWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-G1Name of Driller Steven WolfHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1579Name of Drilling Company AQUIFER DRILLING & TESTING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|---|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 12 | 4 | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | — | — | — | — |
| Screen
(Note slot size) | 12 | 22 | 4 | Sch. 40 .02 |
| Tail Piece | — | — | — | — |
| Gravel Pack | 10 | 22 | 11 | No. 2 Morie |
| Annular Seal/Grout | 0 | 10 | 11 | Cement/bentonite |
| Method of Grouting | <u>grout placement from pipe pressure grouted</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0-22' medium light brown
silty sand
wet @ 3.2'I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steven WolfDate 9-10-93 C

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

E

MONITORING WELL RECORD

Well Permit No. 29 30120
Atlas Sheet Coordinates 29 : 13 : 912 ☐OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code 07960WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 35
County MONMOUTH Municipality EATONTOWN BOBO Lot No. 13 Block No. 64
Address 118 Highway 35 Eatontown N.J 07742TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8/30/93
Regulatory Program Requiring Well RCRA Case I.D. # 88688CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM NE/D. Sciri Tele. (214) 921 4300

WELL CONSTRUCTION

Total depth drilled 32.5 ft.Well finished to 32.5 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3 ft.Water level was measured using tapeWell was developed for 1.5 hours at 3 gpmMethod of development CentrifugalWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-UName of Driller Steven WolfHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1579Name of Drilling Company AQUIFER DRILLING & TESTING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|---|--------------------------|----------------------|-------------------------|
| Inner Casing | <u>0</u> | <u>22.5</u> | <u>4</u> | <u>Sch 40 PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> |
| Screen
(Note slot size) | <u>22.5</u> | <u>32.5</u> | <u>4</u> | <u>Sch 40 PVC .02</u> |
| Tail Piece | <u>-</u> | <u>-</u> | <u>-</u> | <u>-</u> |
| Gravel Pack | <u>20.5</u> | <u>32.5</u> | <u>11</u> | <u>No. 2 morie</u> |
| Annular Seal/Grout | <u>#0</u> | <u>20.5</u> | <u>11</u> | <u>Cement/bentonite</u> |
| Method of Grouting | <u>Grout placement Tremie Pipe Pressure grouted</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-26' medium fine light
brown silty sand
wet @ 3'

26-29' medium fine black
silty sand

29-33' fine silty black
sand + clay

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Steven Wolf

Date

9/10/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 30480
Atlas Sheet Coordinates 29 : 13 : 911OWNER IDENTIFICATION - Owner EATONTOWN BOARD OF EDUCAT
Address 215 BECAD STREET
City EATONTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-1
County MONMOUTH Municipality EATONTOWN BORO Lot No. 43-44 Block No. 55
Address 7 Grant Ave.TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 11 / 24 / 93
Regulatory Program Requiring Well _____ Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Target Enviromental Tele. # 609-697-7575

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 7 ft.Water level was measured using M-ScopeWell was developed for 1/4 hours at 5 gpmMethod of development PumpingWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method AugerDrilling Fluid none Type of Rig CME-75Name of Driller David ConoverHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. J 1521Name of Drilling Company UNI-TECH DRILLING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-----------------------------------|
| Inner Casing | 0 | 5' | 4" | PVC SCH 40 FJ |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5' | 15' | 4" | PVC SCH 40 FJ .020 |
| Tail Piece | | | | |
| Gravel Pack | 3' | 15' | | #1 Morie |
| Annular Seal/Grout | 1'
0 | 3'
1' | | Bentonite Pellets
Cement Grout |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

| | |
|--------|----------------------------|
| 0-2' | Coarse Sand Yellowish Red |
| 2'-6' | Sandy Loam Reddish Yellow |
| 6'-8' | Sandy Loam Yellowish Brown |
| 8'-15' | Sandy Loam Yellowish Red |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature David M ConoverDate 12/29/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 30494
Atlas Sheet Coordinates 29 : 13 : 912OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 39
County MONMOUTH Municipality KATONTOWN BORO Lot No. 13 Block No. 64
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 11/30/93
Regulatory Program Requiring Well ECRA Case I.D. # 86680
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM-NE/J. Sheehan Tele. # 576 921 4300

WELL CONSTRUCTION

Total depth drilled 18 ft.Well finished to 18 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 0.45 ft.Was steel protective casing installed?
☐ Yes ☐ NoStatic water level after drilling 1.49 ft.Water level was measured using TapeWell was developed for N/A hours at N/A gpmMethod of development N/AWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid NONE Type of Rig Mobile B-57Name of Driller Carlos PuenteHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1129

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-----------------------|
| Inner Casing | 0 | 5 | 4 | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | — | — | — | — |
| Screen
(Note slot size) | 5 | 15 | 4 | Sch. 40 PVC 1020 slot |
| Tail Piece | — | — | — | — |
| Gravel Pack | 3 | 18 | 12 | No. 2 Morie |
| Annular Seal/Grout | 0 | 3 | 12 | Cement/bentonite |
| Method of Grouting | Gravity Placement | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-5' Dark brown fine + medium
Sand w/trace of silt +
gravel. Wet at 1.49 ft.

5-10' Brown + dark brown
fine Sand + silt. Wet

10-15' Dark brown fine sand +
silt. Firer material than
above. Wet. Magnate minerals
present.

15-18' Dark brown fine sand +
silt. Wet. Well sorted mat'l.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature _____

Date

12/13/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 30495
Atlas Sheet Coordinates 29 : 13 : 912OWNER IDENTIFICATION - Owner ALLIED SIGNAL INC.
Address COLUMBIA RD. & PARK AVE.
City MORRISTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 40
County MONMOUTH Municipality KATONTOWN BOBO Lot No. 13 Block No. 64
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 11/29/93
Regulatory Program Requiring Well RCRA Case I.D. # 86880CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ERM-NE/J. Sheehan Tele. # 516 921 4300

WELL CONSTRUCTION

Total depth drilled 30 ft.Well finished to 30 ft.Borehole diameter:
Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 0.05 ft.Was steel protective casing installed?
☐ Yes ☐ NoStatic water level after drilling 1.27 ft.Water level was measured using tapeWell was developed for N/A hours at N/A gpmMethod of development N/AWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid None Type of Rig Mobile B-57Name of Driller Carlos PuenteHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1129

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|------------------------------------|
| Inner Casing | 0 | 18 | 4 | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | — | — | — | — |
| Screen
(Note slot size) | 18 | 28 | 4 | Sch. 40 PVC ^{0.02 P} slot |
| Tail Piece | — | — | — | — |
| Gravel Pack | 16 | 30 | 12 | No. 2 Marie |
| Annular Seal/Grout | 0 | 16 | 12 | Cement/bentonite |
| Method of Grouting | Tremie Grouted | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-5' Dark brown fine & medium
Sand w/trace of silt +
gravel. Wet @ 1.27'

5-10' Brown & dk. brown fine
Sand & silt, Wet.

10-15' Dark brown fine sand & silt
Finer mat'l than above. Wet.
Magnetite minerals present.

15-20' Dark brown fine sand & silt.
Wet.

20-30' Dk brown fine sand & silt
bending to very fine sand & silt. ^{Some} clay.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature _____

Date 12/13/97

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29-30514

Atlas Sheet Coordinates 29-13-853

OWNER IDENTIFICATION - Owner STANDARD ROOFING INC
Address 100 PARK ROAD
City TINTON FALLS State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-1
County MONMOUTH Municipality TINTON FALLS BO Lot No. 29 Block No. 11401
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/13/93
Regulatory Program Requiring Well LIST Case I.D. # 93-7-30-0923-47
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) RECON SYSTEMS INC. Tele. # 908-526-1000

WELL CONSTRUCTION

Total depth drilled 12 ft.

Well finished to 12 ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☐ above grade

☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?

☒ Yes ☐ No

Static water level after drilling 6 ft.

Water level was measured using Tape measure

Well was developed for 1 hours at 15 gpm

Method of development Centrifugal Pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity gpm

Pump type:

Drilling Method Auger

Drilling Fluid None Type of Rig Simco 2800

Name of Driller Craig Caldwell

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 1549

Name of Drilling Company

RECON SYSTEMS, INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

Craig Caldwell

Date 12/16/93

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

| | | |
|--------------------------------------|----------------------------------|----------------------------------|
| JOB NO.
4331 | CLIENT
STANDARD ROOFINGS INC. | PROJECT LOCATION
Tinton Falls |
| LOCATION OF WELL
UST Area | 29.13.853
29 30514 | ELEVATION AND DATUM
Grade |
| DRILLING CONTRACTOR
RECON SYSTEMS | DRILLER
CMC | INSPECTOR
JJO |
| DRILLING RIG TYPE
Simco | BIT TYPE
8 | DATE STARTED
12/13/93 |
| SAMPLER TYPE | HAMMER/DROP
WEIGHT | DATE COMPLETED
12/13/93 |
| | | TOTAL DEPTH
12' |
| | | WATER LEVEL
6' |

| SAMPLE NO. | LITH TYPE | DEPTH FT. | W A T E R | LITHOLOGY | WELL CONSTRUCTION |
|------------|-----------|-----------|-----------|--|-------------------------------------|
| 1 | | 0-2.5 | | 0-2.5' GP Fill, Sand w/ gravel some clay | Flush mount Manhole
0-16' Cement |
| 2 | | 2.5-4.5 | | 2.5-4.5' Green Sand, med | 3'-2' PVC Tube - 2" |
| 4 | | 4.5-6.5 | | 4.5-6.5' Orange Sand, med moist. | 16'-20' Bentonite Seal |
| 6 | | 6.5-8.5 | | 6.5-8.5' Brownsand, some clay dry | 20'-12' Sand Pack |
| 8 | | 8.5-12 | | 8.5-12' Tan Sand, med, wet. | 2'-12' PVC Screen |
| 10 | | 10 | | | |
| 12 | | 12 | | | 12' Total Depth |
| 14 | | 14 | | | |
| 16 | | 16 | | | |

MONITORING WELL RECORD

Well Permit No. 29 - 30958
Atlas Sheet Coordinates 29 : 13 : 822OWNER IDENTIFICATION - Owner U S ARMY FORT MONMOUTH

Address _____

City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. Bldg 2562 MW-1County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A

Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORINGDate well completed 7/19/94Regulatory Program Requiring Well USTCase I.D. # 93-8-16-1243-26

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____

Tele. # _____

WELL CONSTRUCTION

Total depth drilled 12 1/2 ft.Well finished to 12 1/2 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 3 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 3 ft.Water level was measured using TapeWell was developed for 1 hours at 10 gpmMethod of development PumpWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method AugerDrilling Fluid _____ Type of Rig B-80Name of Driller Michael E BeckHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) (None) D C B AN.J. License No. 1421

Name of Drilling Company _____

| | Depth to
Top (ft.)
(From land surface) | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 2' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 12 1/2' | 4" | 20S6T PVC |
| Tail Piece | | | | |
| Gravel Pack | 1' | 12 1/2' | | #2 |
| Annular Seal/Grout | 0 | 1' | | Geowite |
| Method of Grouting | Pour | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-6" TOP Soil
6"-3' dark brown sand
red to fine
3'-12 1/2' dark brown clay
and coarse sand

TYRRE ENVIRONMENTAL TECHNOLOGI

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Michael E Beck

Date

7-20-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 30959
Atlas Sheet Coordinates 29 : 13 : 822OWNER IDENTIFICATION - Owner U S ARMY FORT MONMOUTH
Address _____
City FORT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg 2562 MW-2
County MONMOUTH Municipality OCEANPORT BOBO Lot No. N/A Block No. N/A
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7/6/84
Regulatory Program Requiring Well UST Case I.D. # 93-8-16-1243-26
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ NoStatic water level after drilling 3 1/2 ft.Water level was measured using TAPEWell was developed for 1 hours at _____ gpmMethod of development PumpWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method AugerDrilling Fluid _____ Type of Rig BSOName of Driller Michael E. BeckHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) (None) D C B AN.J. License No. 1421Name of Drilling Company TYRRE ENVIRONMENTAL TECHNOLOGI

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 6" | 2' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 15' | 4" | 20 S/10 F PVC |
| Tail Piece | | | | |
| Gravel Pack | 1' | 15' | | #2 |
| Annular Seal/Grout | 6" | 1' | | Geworite |
| Method of Grouting | Pour | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)

0-1' ASPHALT
1'-4' med TO FINE SAND
4'-5' Green Clay + Sand
5'-15' med TO COARSE
DARK BROWN SAND

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Michael E. Beck Date 6-7-84

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 30960
Atlas Sheet Coordinates 29 : 13 : 822OWNER IDENTIFICATION - Owner U.S. ARMY FORT MONMOUTH
Address _____
City FORT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg 2562 MW-3
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7/6/94
Regulatory Program Requiring Well DST Case I.D. # 93-8-16-1243-26

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.Was steel protective casing installed?
☐ Yes ☒ NoStatic water level after drilling 3 1/2 ft.Water level was measured using TAPEWell was developed for 1 hours at _____ gpmMethod of development PUMPWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method AugerDrilling Fluid _____ Type of Rig A-80Name of Driller Michael E BeckHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) (None) D C B AN.J. License No. 1421

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 6" | 2' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 15' | 4" | 20 S/T PVC |
| Tail Piece | | | | |
| Gravel Pack | 1' | 15' | | #2 |
| Annular Seal/Grout | 6" | 1' | | benovite |
| Method of Grouting | Pump | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0-1' ASPHALT
1'-4' med To Fine SAND
4'-5' Green Clay
5'-15' med To coarse
Brown SAND

TYRRE ENVIRONMENTAL TECHNOLOGI

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Date

7-6-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 32069
Atlas Sheet Coordinates 29 : 13 : 816 ☐OWNER IDENTIFICATION - Owner U S ARMY FORT MONMOUTH
Address _____
City FORT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg 2700.4 MW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 7/19/99
Regulatory Program Requiring Well DST Case I.D. # 92-3-7-1047-43
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 20 ft.Well finished to 20 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.Was steel protective casing installed?
☐ Yes ☒ NoStatic water level after drilling 15 ft.Water level was measured using TAPEWell was developed for 1 hours at 10 gpmMethod of development PUMPWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method AugerDrilling Fluid _____ Type of Rig B-80Name of Driller Michael E. BeckHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1921

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 6" | 10' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 10' | 20' | 4" | 20510T PVC |
| Tail Piece | | | | |
| Gravel Pack | 8' | 20' | | #2 |
| Annular Seal/Grout | 6" | 8' | | Genomite Portland |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

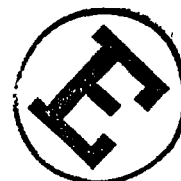
(Copies of other geologic logs and/or
geophysical logs should be attached.)0-6" Top Soil
6"-16' Yellow med to coarse
SAND + CLAY
16'-20' Lite Green coarse
SAND

TYPE III ENVIRONMENTAL TECHNOLOGY

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Michael E. BeckDate 7-20-99

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

6-30



MONITORING WELL RECORD

Well Permit No. 29 - 31238
Atlas Sheet Coordinates 29: 13: 828 ☐OWNER IDENTIFICATION - Owner MIDMOUTH REALTY ASSOC
Address 75 EISENHOWER PARKWAY
City ROSELAND State NJ Zip Code WELL LOCATION - If not the same as owner please give address. Owner's Well No. P1
County MONMOUTH Municipality TINTON FALLS BO Lot No. 13-02 Block No. 114
Address 1 COLDSTREAM WAY, TINTON FALLSTYPE OF WELL (as per Well Permit Categories) PIEZOMETER Date well completed 5 / 19 / 94
Regulatory Program Requiring Well ISRA SITE Case I.D. # 93455
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Environmental Waste Management Tele. # 633-7900

WELL CONSTRUCTION

Total depth drilled 15' ft.Well finished to 15' ft.

Borehole diameter:

Top 8" in.Bottom 8" in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface ft.

Was steel protective casing installed?

☐ Yes ☐ NoStatic water level after drilling 5' ft.Water level was measured using Electric TapeWell was developed for hours at gpmMethod of development Air Sub PumpWas permanent pumping equipment installed? ☐ Yes ☐ NoPump capacity gpmPump type: Drilling Method Air RotaryDrilling Fluid Type of Rig TH60Name of Driller John NemetzHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1330Name of Drilling Company

SBI ENVIRONMENTAL INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

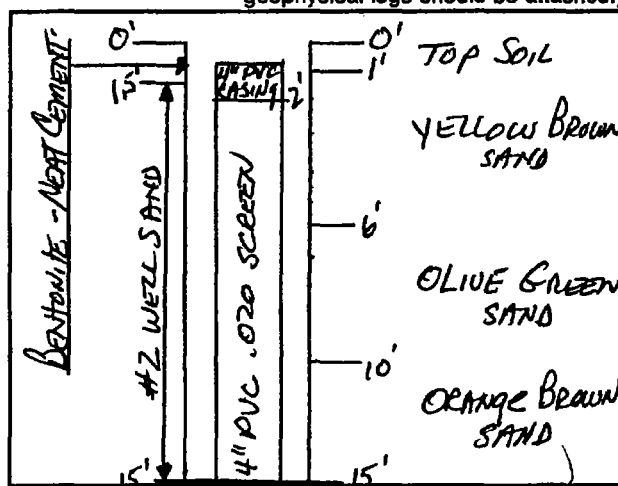
Driller's Signature John NemetzDate 6-21-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------------|
| Inner Casing | 6" | 2' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' | 15' | 4" | .020 slot PVC |
| Tail Piece | | | | |
| Gravel Pack | 1.5' | 15' | | #2 Sand |
| Annular Seal/Grout | 6" | 1.5' | | Bentonite/Neat
Cement |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)





MONITORING WELL RECORD

Well Permit No. 29 31239
Atlas Sheet Coordinates 29 : 13 828 ☐OWNER IDENTIFICATION - Owner MIDMOUTH REALTY ASSOC
Address 75 EISENHOWER PARKWAY
City ROSELAND State NJ Zip Code WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-4
County MONMOUTH Municipality TINTON FALLS Lot No. Block No. 13.02 114
Address 1 COLDSTREAM WAY TINTON FALLSTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 5 / 19 / 94
Regulatory Program Requiring Well ISRA SITE Case I.D. # 93455
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Environmental Waste Management Tele. # 633-7900

WELL CONSTRUCTION

Total depth drilled 11' ft.Well finished to 11' ft.

Borehole diameter:

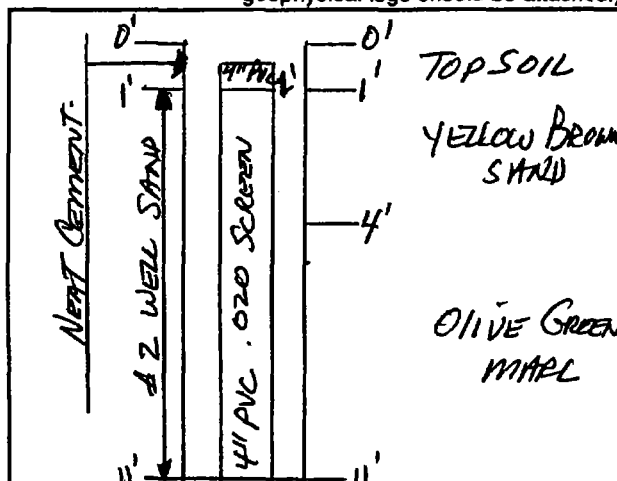
Top 8" in.Bottom 8" in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface ft.

Was steel protective casing installed?

☐ Yes ☐ NoStatic water level after drilling 2' ft.Water level was measured using Electric TapeWell was developed for 1 hours at 2 gpmMethod of development Sub PumpWas permanent pumping equipment installed? ☐ Yes ☐ NoPump capacity gpmPump type: Drilling Method Air RotaryDrilling Fluid Type of Rig TH60Name of Driller John NemetzHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1330Name of Drilling Company

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 6" | 1' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 1' | 10' | 4" | .020 slot PVC |
| Tail Piece | | | | |
| Gravel Pack | 1' | 10' | | #2 Well Sand |
| Annular Seal/Grout | 6" | 1' | | Neat Cement |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature John NemetzDate 6-21-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29-31240Atlas Sheet Coordinates 29 : 13 : 828

312/

29

OWNER IDENTIFICATION - Owner MIDMOUTH REALTY ASSOC
75 KILGOWER PARKWAY
Address ROSELAND State NJ Zip Code _____
City _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 6
County MORRIS Municipality TINTON FALLS Lot No. 13-82 Block No. 114
Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 5 / 19 / 94
Regulatory Program Requiring Well ISRA SITE Case I.D. # 93455

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Environmental Waste Management Tele. # 633-7900

WELL CONSTRUCTION

Total depth drilled 13' ft.Well finished to 13' ft.

Borehole diameter:

Top 8" in.Bottom 8" in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ NoStatic water level after drilling 5' ft.Water level was measured using electric tapeWell was developed for 2 hours at 2 gpmMethod of development Sub PumpWas permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity _____ gpm

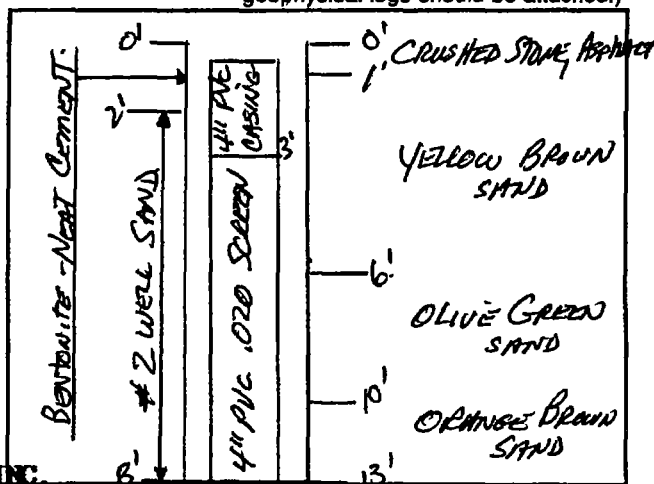
Pump type: _____

Drilling Method Air RotaryDrilling Fluid _____ Type of Rig TH60Name of Driller John NemetzHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1330Name of Drilling Company SHI ENVIRONMENTAL INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------------|
| Inner Casing | 6" | 3' | 4" | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 3' | 13' | 4" | .020 slot PVC |
| Tail Piece | | | | |
| Gravel Pack | 2' | 13' | | #2 Sand |
| Annular Seal/Grout | 6" | 2' | | Bentonite
Neat Cement |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)



I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

John Nemetz

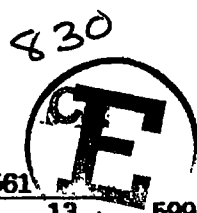
Date

6-21-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 31561
Atlas Sheet Coordinates 29 : 13 : 599



OWNER IDENTIFICATION - Owner EATONTOWN BOROUGH OF
Address 47 N. BROAD ST.
City EATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. 1
County MONMOUTH Municipality EATONTOWN BORO Lot No. 2 Block No. 54
Address 131 Lewis St. South Eatontown, NJ

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8 / 16 / 94
Regulatory Program Requiring Well UST Case I.D. # 94-1-31-1620-21
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) NA Tele. # _____

WELL CONSTRUCTION

Total depth drilled 13.5 ft.

Well finished to 13.5 ft.

Borehole diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 3.5 ft.

Water level was measured using Tape

Well was developed for 1 hours at 1 gpm

Method of development Centrifugal

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller William Lovenberg

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) (None) D C B A

N.J. License No. 1610

Name of Drilling Company _____

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | 0 | 3.5 | 4 | Sch 40 PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 3.5 | 13.5 | 4 | .20 Slot PVC |
| Tail Piece | | | | |
| Gravel Pack | 2.5 | 13.5 | 8 | #2 Well Sand |
| Annular Seal/Grout | 0 | 2.5 | 8 | Portland |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0'-4"= Grass and Top Soil
4"-6'= Gray Course Silty Sand
6'-9'= Green silty Sand
9'-13.5'= Green Clay

GARDEN STATE ENVIRONMENTAL TAG

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature

William Lovenberg

Date

8/19/94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 31562
Atlas Sheet Coordinates 29 : 13 : 589OWNER IDENTIFICATION - Owner EATONTOWN BOROUGH OF
Address 47 N. BROAD ST.
City EATONTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. 2
County MONMOUTH Municipality EATONTOWN BORO Lot No. 2 Block No. 54
Address 131 Lewis St. South Eatontown, NJTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 08 / 16 / 94
Regulatory Program Requiring Well UST Case I.D. # 94-3-38-1349-01

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ NA _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 12' 9" ft.Well finished to 12' 9" ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 2' 9" ft.Water level was measured using TapeWell was developed for 1 hours at 1 gpmMethod of development CentrifugalWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller William LovenbergHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1610

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 2' 9" | 4 | Sch. 40 PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 2' 9" | 12' 9" | 4 | .20 Slot PVC |
| Tail Piece | | | | |
| Gravel Pack | 2 | 12' 9" | 8 | #2 Well Sand |
| Annular Seal/Grout | 0 | 2 | 8 | Portland |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)0'-2"= Asphalt
2"-2'= Gray Course Sand
2'-8'= Green Silty Sand
8'-12'9"= Green Clay

GARDEN STATE ENVIRONMENTAL DLG

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

William Lovenberg

Date

8/19/94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

830



MONITORING WELL RECORD

Well Permit No. 29 - 31563
Atlas Sheet Coordinates 29 : 13 : 599OWNER IDENTIFICATION - Owner RATONTOWN BOROUGH OF
Address 47 N. BROAD ST.
City RATONTOWN State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. 1
County MORRIS Municipality RATONTOWN BORO Lot No. 32 Block No. 12
Address 131 North Lewis St.TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 8 / 15 / 94
Regulatory Program Requiring Well UST Case I.D. # 94-2-4-0816-37
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ NA Tele. # _____

WELL CONSTRUCTION

Total depth drilled 13 ft.Well finished to 13 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 3.5 ft.Water level was measured using TapeWell was developed for 1 hours at 2 gpmMethod of development CentrifugalWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method Auger

Drilling Fluid _____ Type of Rig _____

Name of Driller William LovenbergHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1610

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 3 | 4 | Sch 40 PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 3 | 13 | 4 | .20 Slot PVC |
| Tail Piece | | | | |
| Gravel Pack | 2 | 13 | 8 | #2 Well Sand |
| Annular Seal/Grout | 0 | 2 | 8 | Portland |
| Method of Grouting | Gravity | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)0'-4"= Asphalt
4"-8"= 3/8" Road Stone
8"-3'= Orange silty sand
3'-9'= green saturated sands
9'-13'= ~~Green~~ Green Sandy Clay

GARDEN STATE ENVIRONMENTAL DLG

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

William Lovenberg

Date

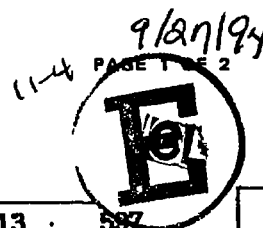
8/19/94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELL RECORD

Well Permit No. 29 - 32158

Atlas Sheet Coordinates 29 : 13 : 587



OWNER IDENTIFICATION - Owner FORT MONMOUTH GOLF COURSE
Address TINTON AVE.
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. 1SW #6
Address _____
County MONMOUTH Municipality EATONTOWN BOBO Lot No. NA Block No. NA

WELL USE WITHDRAWAL Status IN USE

WATER USE IRRIGATION Average 8000 gals. daily Maximum — gals. daily

WELL CONSTRUCTION Date well completed 10 / 30 / 94
BOREHOLE DIMENSIONS Depths: Total 50 ft. Finished 50 ft.
Diameter: Top 8.5 in. Bottom 8.5 in.
Land Surface Elevation at well 40 ft. Elevation was determined using TOPOGRAPHIC MAP
Casing Height (stick-up) above land surface 0 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | <u>15</u> | <u>4.0</u> | <u>Pvc Schedule 40</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>15</u> | <u>30</u> | <u>4.0</u> | <u>Pvc Schedule 40 / 0.020</u> |
| Screen 2 | | | | |
| Tail Piece | | <u>5.0</u> | <u>4.0</u> | |
| Gravel Pack | <u>13.5</u> | <u>36.5</u> | <u>8.5</u> | <u>BLENDED 0.025</u> |
| Grout | <u>SURFACE</u> | <u>13.5</u> | | <u>30 MESH BENTONITE</u> |
| Grouting Method | | | | <u>PRESSURE TANK TREATMENT</u> |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date 10 / 30 / 94
Static water-level before pumping 7 ft. below land surface. Water level 40 ft. below land surface after _____ hrs. of pumping.
Water level was measured using ESTIMATED Drawdown 33 ft.
Discharge rate measured using MEASURED CONTAINER Discharge Rate 20 gals. per min.
Well was pumped using AIR LIFT Specific Capacity 0.6 gals. per min. per ft. of drawdown
Observed effects on nearby wells NONE
Water Quality (taste, odor, color, etc.) NOT INSTALLED AT THIS TIME

PERMANENT PUMPING EQUIPMENT
Mfrs. Name _____ Installed by NOT INSTALLED AT THIS TIME Pump Type _____
Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING
Address P.O. Box 6
City PARMING DARE State NJ Zip Code 07727
Name of Driller DAVE PRIMOST License No. M1041

Signature of Contractor [Signature] Date 10 / 30 / 94

COPIES: White - DEPE 11/01/94
Canary - Driller 11/01/94
Pink - Owner 11/01/94
Goldenrod - Health Dept. 11/01/94

Well Permit No. 29 - 32158
29 13 597

15W#6

Aquifer/Geo. Fm. Kalc

0-10 green Clay w/ green Sand
10-30 MDM 1, FINE Black Sand
30-45 FINE Black Sand w/ Silt
45-50 v/ FINE Black Sand, very Silty,
gray/brown Clay @ Bottom

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]Date / /

11/01/94

WELL RECORD

Well Permit No. 29 - 32159

Atlas Sheet Coordinates 29 : 13 : 587



OWNER IDENTIFICATION - Owner FORT MONMOUTH GOLF COURSE
Address TINTON AVE.
City EATONTOWN State NJ Zip Code 07724

WELL LOCATION - If not the same owner please give address. Owner's Well No. 15W #2
Address _____
County MONMOUTH Municipality EATONTOWN BORO Lot No. NA Block No. NA

WELL USE WITH DR FWC Status IN USE

WATER USE IRRIGATION Average 8000 gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION Date well completed 10 / 27 / 94
BOREHOLE DIMENSIONS Depths: Total 50 ft. Finished 50 ft.
Diameter: Top 8.5 in. Bottom 8.5 in.
Land Surface Elevation at well 40 ft. Elevation was determined using TOPOGRAPHIC MAP
Casing Height (stick-up) above land surface 0 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | <u>20</u> | <u>4.0</u> | <u>Schedule 40 PVC</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>18.5</u> | <u>30</u> | <u>4.0</u> | <u>Schedule 40 PVC / 0.020</u> |
| Screen 2 | | | | |
| Tail Piece | | <u>1.5</u> | <u>4.0</u> | |
| Gravel Pack | <u>15</u> | <u>35</u> | <u>8.5</u> | <u>0.025 BLEND</u> |
| Grout | <u>SURFACE</u> | <u>15</u> | | <u>30 MESH BENTONITE</u> |
| Grouting Method | | | | <u>PRESSURE TANK METHOD</u> |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.

RECORD OF TEST Test Date 10 / 27 / 94
Static water-level before pumping 6 ft. below land surface. Water level 40 ft. below land surface after 1 1/2 hrs. of pumping.
Water level was measured using MEASURED drawdown 34 ft.
Discharge rate measured using MEASURED CONTAINER Discharge Rate 20 gals. per min.
Well was pumped using AIR LIFT Specific Capacity 0.6 gals. per min. per ft. of drawdown
Observed effects on nearby wells none
Water Quality (taste, odor, color, etc.) Good

PERMANENT PUMPING EQUIPMENT NOT INSTALLED AT THIS TIME
Mfrs. Name _____ Installed by _____ Pump Type _____
Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ Installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING
Address P.O. Box 6
City PARMILLY, NJ State NJ Zip Code 07727
Name of Driller DAVID PRIMOST License No. M1041

Signature of Contractor David Primost Date 10 / 30 / 94

COPIES:

White - DEPE
11/01/94Canary - Driller
11/01/94Pink - Owner
10/01Goldenrod - Health Dept.
11/01/94

Well Permit No. $\frac{29}{29} - \frac{32159}{13597}$

15W#2

Aquifer/Geo. Fm. KNS

0-15 clay w/ green sand
15-35 MED & FINE BLACK SAND
35-45 FINE BLACK SAND w/ SILT
45-50 v/silty black sand, Brown clay
at bottom.

Completed by _____
Date ____/____/____

| Thick. | Lith. | Fm. |
|--------|-------|-----|
|--------|-------|-----|

[illegible]

Date / /

11/01/94

WELL RECORD

Well Permit No. 29 - 32160

Atlas Sheet Coordinates 29 : 13 : 58

OWNER IDENTIFICATION - Owner FORT MONMOUTH GOLF COURSE
Address TINTON AVE.
City EATONTOWN State NJ Zip Code _____

WELL LOCATION - If not the same owner please give address. Owner's Well No. 15W#3
Address _____
County MONMOUTH Municipality EATONTOWN BORO Lot No. NA Block No. NA

WELL USE WITHDRAWAL Status IN USE

WATER USE IRRIGATION Average 8000 gals. daily Maximum _____ gals. daily

WELL CONSTRUCTION BOREHOLE DIMENSIONS Date well completed 10 / 19 / 94
Depths: Total 50 ft. Finished 50 ft.
Diameter: Top 8.5 in. Bottom 8.5 in.
Land Surface Elevation at well 40 ft. Elevation was determined using TOPOGRAPHIC MAP
Casing Height (stick-up) above land surface 0 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
<small>Screens: Note Slot Size(s)</small> |
|-----------------|-----------------------|-----------------|-------------------|--|
| Casing 1 | | <u>18.5</u> | <u>4.0</u> | <u>PVC SCHED 40</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>18.5</u> | <u>30</u> | <u>4.0</u> | <u>PVC SCHED 40 / 0.020</u> |
| Screen 2 | | | | |
| Tail Piece | | <u>1.5</u> | <u>4.0</u> | |
| Gravel Pack | <u>15</u> | <u>35</u> | <u>8.5</u> | <u>0.025 BLEND</u> |
| Grout | <u>SURFACE</u> | <u>15</u> | | <u>30 MESH BENTONITE</u> |
| Grouting Method | | | | <u>PRESSURE, THEN TRENCH</u> |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.

Water rises to _____ ft. above the land surface.

RECORD OF TEST

Test Date 10 / 19 / 94
Static water-level before pumping 8 ft. below land surface. Water level 40 ft. below land surface after 1/2 hrs. of pumping.
Water level was measured using MEASURED WATER Drawdown 32 ft.
Discharge rate measured using MEASURED CONTAINER Discharge Rate 16 gals. per min.
Well was pumped using AIR LIFT Specific Capacity 0.5 gals. per min. per ft. of drawdown
Observed effects on nearby wells NONE
Water Quality (taste, odor, color, etc.) GOOD

PERMANENT PUMPING EQUIPMENT

NOT INSTALLED AT THIS TIME
Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING

Address P.O. BOX 6
City FARMINGDALE State NJ Zip Code 07727
Name of Driller DAVID PRIMOST License No. M1041

Signature of Contractor David PrimostDate 10 / 30 / 94

COPIES:

White - DEPE

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

11/01/94

11/01/94

1901

11/01/94

9/27/94

WELL RECORDWell Permit No. 29 - 3216029 13597

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☒ Yes ☐ No

1SW#3

Drilling Method MUD ROTARYType of Rig MOBILE B-47Aquifer/Geo. Fm. KNS

LOG

0-10 Clay w/ green Sand
10-15 GREEN Clay
15-40 MUD & FINE Black Sand
40-45 FINE Black Sand w/ silt
45-50 v. Silty Black Sand, Brown
Clay @ Bottom

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJDES No. _____ - _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES: ☐ Lithologic Log ☐ Samples Available
☐ Geophysical Logs ☐ Water Chemistry☐ Aquifer Test ☐ Water Level Data
☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

11/01/94 11/01/94

11/01/94

WELL RECORDWell Permit No. 29 - 32161
Atlas Sheet Coordinates 29 : 13 : 587OWNER IDENTIFICATION - Owner FORT MONMOUTH GOLF COURSE
Address TINTON AVE.
City EATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. 15W#4
Address _____
County MONMOUTH Municipality EATONTOWN BORO Lot No. NA Block No. NAWELL USE WITHDRAWAL Status IN USEWATER USE IRRIGATION Average 8000 gals. daily Maximum _____ gals. dailyWELL CONSTRUCTION Date well completed 10/26/94
BOREHOLE DIMENSIONS Depths: Total 45 ft. Finished 45 ft.
Diameter: Top 8.5 in. Bottom 8.5 in.
Land Surface Elevation at well 40 ft. Elevation was determined using TOPOGRAPHIC MAP
Casing Height (stick-up) above land surface 0 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | <u>15</u> | <u>4.0</u> | <u>Schedule 40 pipe</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>15</u> | <u>30</u> | <u>4.0</u> | <u>Schedule 40 pipe / 0.020</u> |
| Screen 2 | | | | |
| Tail Piece | | | | <u>.025 BLEND GRAVEL PACK</u> |
| Gravel Pack | <u>13.5</u> | <u>31.5</u> | <u>8.5</u> | <u>30 MESH BENTONITE</u> |
| Grout | <u>SURFACE</u> | <u>13.5</u> | | |
| Grouting Method | | | | <u>PRESSURE, THRU TRENCH</u> |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date 10/26/94
Static water-level before pumping 7 ft. below land surface. Water level 36 ft. below land surface after 1/2 hrs. of pumping.
Water level was measured using MEASURED ESTIMATED Drawdown 29 ft.
Discharge rate measured using MEASURED CONTAINER Discharge Rate 15 gals. per min.
Well was pumped using AIR LIFT Specific Capacity 0.5 gals. per min. per ft. of drawdown
Observed effects on nearby wells NONE
Water Quality (taste, odor, color, etc.) GoodPERMANENT PUMPING EQUIPMENT NOT INSTALLED AT THIS TIME
Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING
Address P.O. Box 6
City FARMINGDALE State NJ Zip Code 07727
Name of Driller DAN PRIMOSTI License No. 11/01/1Signature of Contractor Dan Primosti Date 10/30/94COPIES: White - DEPE 11/01/94
Canary - Driller 11/01/94
Pink - Owner 10/30/94
Goldenrod - Health Dept. 11/01/94

9/27/94

WELL RECORDWell Permit No. 29 - 32141
29 13597

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available?

☒ Yes☐ No

ISW # 4

Drilling Method

MUD ROTARY

Type of Rig

MOBILE B 47

Aquifer/Geo. Fm.

KNS

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date ____ / ____ / ____

LOG

0-10 clay w/ green sand

10-30 MED & FINE Black Sand
w/ small shells

30-40 FINE Black Sand w/ SILT.

40-45 v/silty Black Sand;
Brown Clay @ bottom

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJDES No. _____ - _____

Latitude _____ ° _____ ' _____ "

Longitude _____ ° _____ ' _____ "

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle _____

Drainage Basin Code _____

County/Municipality Code _____

OTHER FILES:

☐ Lithologic Log☐ Samples Available☐ Aquifer Test☐ Water Level Data☐ Geophysical Logs☐ Water Chemistry☐ Pollution Case

Checked by _____

Date ____ / ____ / ____

11/01/94

11/01/94

11/01/94

WELL RECORD

Well Permit No. 29 - 32162
Atlas Sheet Coordinates 29 : 13 : 597OWNER IDENTIFICATION - Owner FORT MONMOUTH GOLF COURSE
Address TINTON AVE.
City EATONTOWN State NJ Zip Code 07124WELL LOCATION - If not the same owner please give address. Owner's Well No. 15W #5
Address _____
County MONMOUTH Municipality EATONTOWN BORO Lot No. NA Block No. NAWELL USE WITHDRAWAL Status IN USEWATER USE IRRIGATION Average 8000 gals. daily Maximum — gals. dailyWELL CONSTRUCTION Date well completed 10/27/94
BOREHOLE DIMENSIONS Depths: Total 48 ft. Finished 48 ft.
Diameter: Top 8.5 in. Bottom 8.5 in.
Land Surface Elevation at well 42 ft. Elevation was determined using TOPOGRAPHIC MAP
Casing Height (stick-up) above land surface 0 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | <u>16</u> | <u>4.0</u> | <u>Schedule 40, PVC</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>16</u> | <u>30</u> | <u>4.0</u> | <u>Schedule 40 PVC / 0.020</u> |
| Screen 2 | | | | |
| Tail Piece | | <u>2</u> | <u>4.0</u> | |
| Gravel Pack | <u>14</u> | <u>34</u> | <u>8.5</u> | <u>0.075 BLENDED</u> |
| Grout | <u>Sand</u> | <u>14</u> | | <u>30 MESH BENTONITE</u> |
| Grouting Method | | | | <u>PRESSURE TANK TREATMENT</u> |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date 10/27/94
Static water-level before pumping 6 ft. below land surface. Water level 38 ft. below land surface after _____ hrs. of pumping.
Water level was measured using ESTIMATED Drawdown 32 ft.
Discharge rate measured using MEASURED CONTAINER Discharge Rate 16 gals. per min.
Well was pumped using AIR LIFT Specific Capacity 0.5 gals. per min. per ft. of drawdown
Observed effects on nearby wells None
Water Quality (taste, odor, color, etc.) GoodPERMANENT PUMPING EQUIPMENT NOT INSTALLED AT THIS TIME
Installed by _____ Pump Type _____
Mfrs. Name _____ Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor PICKWICK WELL DRILLING
Address P.O. BOX 6
City FARMINGDALE State NJ Zip Code 07727
Name of Driller DANA PRIMOST License No. A11041Signature of Contractor Dana Primost Date 10/30/94COPIES: White - DEPE 11/01/94
Canary - Driller 11/01/94
Pink - Owner 11/01/94
Goldenrod - Health Dept. 11/01/94

WELL RECORD

Well Permit No. 29-32163
Atlas Sheet Coordinates 29:13:597OWNER IDENTIFICATION - Owner FORT MONMOUTH GOLF COURSE
Address TINTON AVE
City EATONTOWN State NJ Zip Code 07724WELL LOCATION - If not the same owner please give address. Owner's Well No. 15W #1
Address _____
County MONMOUTH Municipality EATONTOWN BORO Lot No. N/A Block No. N/AWELL USE WITHDRAWAL Status IN USEWATER USE IRRIGATION Average 8000 gals. daily Maximum — gals. dailyWELL CONSTRUCTION Date well completed 10/20/94
BOREHOLE DIMENSIONS Depths: Total 45 ft. Finished 45 ft.
Diameter: Top 8.5 in. Bottom 8.5 in.
Land Surface Elevation at well 40 ft. Elevation was determined using TOPOGRAPHIC MAP
Casing Height (stick-up) above land surface 0 ft.

| | DEPTH TO TOP
(FT.) | LENGTH
(FT.) | DIAMETER
(IN.) | TYPE AND MATERIAL
Screens: Note Slot Size(s) |
|-----------------|-----------------------|-----------------|-------------------|---|
| Casing 1 | | <u>15</u> | <u>4.0</u> | <u>Schedule 40 PVC</u> |
| Casing 2 | | | | |
| Casing 3 | | | | |
| Screen 1 | <u>15</u> | <u>30</u> | <u>4.0</u> | <u>Schedule 40 PVC / 0.020</u> |
| Screen 2 | | | | |
| Tail Piece | | | | |
| Gravel Pack | <u>13.5</u> | <u>30.5</u> | <u>8.5</u> | <u>1005 BLENDED</u> |
| Grout | <u>SURFACE</u> | <u>13.5</u> | | <u>30 MESH BENTONITE</u> |
| Grouting Method | | | | <u>PRESSURE, TITAN TREMIE</u> |

WELL FLOWS NATURALLY _____ gals. per min. at _____ ft. above the land surface.
Water rises to _____ ft. above the land surface.RECORD OF TEST Test Date 10/20/94
Static water-level before pumping 6 ft. below land surface. Water level 36 ft. below land surface after 1 1/2 hrs. of pumping.
Water level was measured using WATER LEVEL ESTIMATED Drawdown 30 ft.
Discharge rate measured using MEASURED CONTAINER Discharge Rate 12 gals. per min.
Well was pumped using AIR LIFT Specific Capacity 0.4 gals. per min. per ft. of drawdown
Observed effects on nearby wells NONE
Water Quality (taste, odor, color, etc.) GOODPERMANENT PUMPING EQUIPMENT NOT INSTALLED AT THIS TIME
Mfrs. Name _____ Installed by _____ Pump Type _____
Model _____
CAPACITY: Pump delivers _____ GPM at _____ PSI pressure.
POWER: _____ HP at _____ RPM Power Source _____
DEPTHS: Pump _____ ft. Footpiece _____ ft. Airline _____ ft.
FLOW METER: Model _____ installed on _____ in. diameter pipe.CONTRACTOR - Name of Drilling Contractor Pickwick Well Drilling
Address P.O. Box 6
City PARMINDALE, NJ State NJ Zip Code 07727
Name of Driller DAVID PRIMOST License No. 1A1041Signature of Contractor [Signature] Date 10/30/94COPIES: White - DEPE 11/01/94
Canary - Driller 11/01/94
Pink - Owner 10/01/94
Goldenrod - Health Dept. 11/01/94

WELL RECORD

Well Permit No. $\frac{29}{29} - \frac{32163}{13597}$

Driller: Please use the space below for the log description. Note water bearing zones or geological formation.

Are samples available? ☒ Yes ☐ No

Drilling Method MWD Rotary

Type of Rig

Aquifer/Geo. Fm. KNS

LOG

0-10 Grey clay w/ green sand
10-30 med & fine black sand
w/ small shells.
30-40 fine black sand w/ silt
40-45 v. silty black sand, brown clay
@ bottom.

DEP USE ONLY

Storet Hydrogeo Code _____

USGS Hydrogeo Code _____

Depth to Bedrock _____ ft.

Bedrock Lith. Code _____

Bedrock Fm. Code _____

Completed by _____

Date / /

Thick.

Lith.

Fm.

GWPI No. _____ - _____

NJPDES No. _____ - _____

Latitude ° ' "

Longitude 0 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 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040

Lat-Long Accuracy ☐ 1" ☐ 5" ☐ 10" ☐ 20"

USGS Quadrangle**Drainage Basin Code**

County/Municipality Code

OTHER FILES:

Lithologic Log

☐ **Samples Available**☐ **Aquifer Test**☐ **Water Level Data**

 Geophysical Logs

☐ **Water Chemistry**

☐ Pollution Case

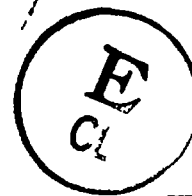
Checked by _____

Date / /

11/01/94

11/01/94

11/01/94



MONITORING WELL RECORD

Well Permit No. 29 - 32590

Atlas Sheet Coordinates 29 : 13 : 824

OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG 167 ATT: SLEPM-FW-KV
City FT. MONMOUTH State NJ Zip Code 07703

WELL LOCATION - If not the same as owner please give address. Owner's Well No. CN01 MW26
County MONMOUTH Municipality KATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as above

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/19/94
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 16 ft.

Well finished to 15 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2.0 ft.

Was steel protective casing installed? ☒ Yes ☐ No

Static water level after drilling 9.0 ft.

Water level was measured using m-scope

Well was developed for 2 hours at 1.5 gpm

Method of development pumping

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method HSA

Drilling Fluid none Type of Rig CME 55

Name of Driller Wellington Reeve

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. Y1455

Name of Drilling Company _____

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|---------------------------|
| Inner Casing | <u>0</u> | <u>5</u> | <u>4</u> | <u>flush joint pvc</u> |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | <u>5</u> | <u>15</u> | <u>4</u> | <u>fig. .010 slot pvc</u> |
| Tail Piece | | | | |
| Gravel Pack | <u>4</u> | <u>16</u> | | <u>#1 monie</u> |
| Annular Seal/Grout | <u>2</u> | <u>4</u> | | <u>cement-bentonite</u> |
| Method of Grouting | <u>Tremie</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

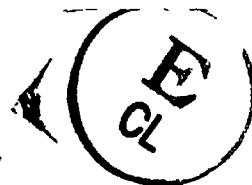
| Depth | Description |
|--------------|-----------------------------------|
| <u>0-16'</u> | <u>Yellowish light brown sand</u> |

JAMES C. ANDERSON ASSOC., INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Wellington Reeve Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32592
Atlas Sheet Coordinates 29 : 13 : 824 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLEPM-FW-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 28
County MONMOUTH Municipality BATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/19/94
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 7.5 ft.Water level was measured using m-scopeWell was developed for 2.0 hours at 1.5 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile R-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD 1624

Name of Drilling Company _____

JAMES C. ANDERSON ASSOC. INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Steve Burger GP Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|----------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | 1/2" x 1/8" slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Moire |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| Depth | Description |
|--------|-------------------------|
| 0'-5' | Brown sandy silt |
| 5'-6' | orange/olive brown sand |
| 6'-8' | olive sand |
| 8'-15' | yellow brown sand |

MONITORING WELL RECORD

Well Permit No. 29 - 32593Atlas Sheet Coordinates 29 : 13 : 824 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLEM-FW-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 29
County MONMOUTH Municipality EATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/19/94Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 7.5 ft.Water level was measured using m-scopeWell was developed for 2 hours at 1.5 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None C B AN.J. License No. JD1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 5 | 4 | fig. pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | fig. 0.10 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Monie |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

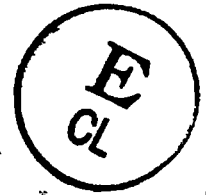
(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|----------|--|
| 0-.5' | Brown sandy silt |
| .5'-7.5' | Orange/olive brown
sand, wet at |
| 7.5'-10' | Gray, brown
sand |
| 10'-15' | olive brown sand
Silty sand at
15' |

JAMES C. ANDERSON ASSOC. INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steve Burger ga Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32594
Atlas Sheet Coordinates 29 : 13 : 824

OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SELEM-PW-EV
City FT. MONMOUTH State NJ Zip Code 07703

WELL LOCATION - If not the same as owner please give address. Owner's Well No. CW2 MW30
County MONMOUTH Municipality EATONTOWN BORO Lot No. 1,1,8,01 Block No. 1,53,54
Address Same as above

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/16/94
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 17 ft.

Well finished to 16 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2.0 ft.

Was steel protective casing installed?

☐ Yes ☐ No

Static water level after drilling 10.0 ft.

Water level was measured using m-scope

Well was developed for 2 hours at 1.5 gpm

Method of development pumping

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method HSA

Drilling Fluid none Type of Rig CME 55

Name of Driller Wellington Reeve

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. J 1455

Name of Drilling Company JAMES C. ANDERSON ASSOC. INC.

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | 0 | 6 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 6 | 16 | 4 | fig. 010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 4 | 17 | | #1 Moric |
| Annular Seal/Grout | 0 | 4 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

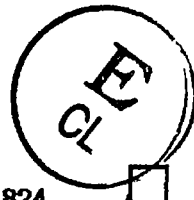
| Depth | Description |
|---------|----------------------------|
| 0-1' | Brown silty sand |
| 1'-2' | Light brown sand with silt |
| 2'-4' | Dark gray silty sand |
| 4'-6' | Gray brown silty sand |
| 6'-14' | Greenish gray sandy silt |
| 14'-15' | Greenish gray sand |
| 15'-17' | Dark gray silt |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Wellington Reeve (JD) Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 32595
Atlas Sheet Coordinates 29 : 13 : 824OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLEM-PH-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 31
County MONMOUTH Municipality EATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/16/94
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 5.5 ft.Water level was measured using m-scopeWell was developed for 2 hours at 1.0 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid None Type of Rig Mobile B-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD 1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | f.j. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Monie |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

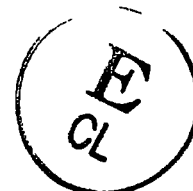
(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|---------|------------------|
| 0-3' | Brown silty sand |
| 3'-7' | Gray silty sand |
| 7'-13' | Gray green sand |
| 13'-15' | Dark gray silt |

JAMES C. ANDERSON ASSOC. INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steve Burger (Signature) Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32598
Atlas Sheet Coordinates 29 : 13 : 824 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLEPM-PW-EV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 32
County MONMOUTH Municipality BATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/16/94
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 5.5 ft.Water level was measured using M-ScopeWell was developed for 2 hours at 1.5 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | fig. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Marine |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|---------|--------------------------|
| 0-4' | Brown silty sand |
| 4'-6' | Gray silty sand |
| 6'-8' | Brown gray silty
sand |
| 8'-9' | olive/gray silty
sand |
| 9'-10' | Brown silty sand |
| 10'-15' | Gray sandy silt |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steve Burger ee Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29 - 32597
Atlas Sheet Coordinates 29 : 13 : 824OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 187 APT: SLENN FW RV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 33
County MONMOUTH Municipality BATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 12/15/94
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 5.5 ft.Water level was measured using me-scopeWell was developed for 2 hours at 1.5 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | 7.0 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Marie |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|--------|------------------|
| 0-4' | Brown silty sand |
| 4'-7' | Gray silty sand |
| 7'-15' | Green silty sand |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steve Burger Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32598
Atlas Sheet Coordinates 29 : 13 : 824 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLEAM-PW-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW08B
County MONMOUTH Municipality EATONTOWN BOBO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/10/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 3.5 ft.Water level was measured using m-scopeWell was developed for 2.0 hours at 1 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD 1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | fig. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Morie |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

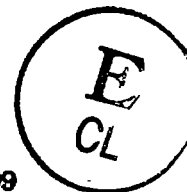
(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|---------|-------------------------|
| 0-.5' | Brown sandy silt |
| .5'-15' | Yellow brown silty sand |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Steve Burger (D) Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32599
Atlas Sheet Coordinates 29 : 13 : 831 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLETH-PW-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 34
County MONMOUTH Municipality EATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/3/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15.5 ft.Well finished to 14.5 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 6.0 ft.Water level was measured using M-scopeWell was developed for 2 hours at 1.0 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig CME 55Name of Driller Wellington ReeveHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 51455

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 4.5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 4.5 | 14.5 | 4 | f.j. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3.5 | 15.5 | | #1 Marie |
| Annular Seal/Grout | 0 | 3.5 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

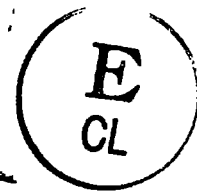
(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|----------|---------------------------------|
| 0-2' | Brown silty sand with
gravel |
| 2'-4' | Grayish brown sand |
| 4'-6' | olive green sand |
| 6'-15.5' | Brown to light brown
sand |

JAMES C. ANDERSON ASSOC., INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Wellington Reeve QR Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32622
Atlas Sheet Coordinates 29 : 13 : 831

OWNER IDENTIFICATION - Owner U. S. ARMY (DISCARTAGE)
Address BLDG. 167 ATT. SLEPM PW-KV
City FT. MONMOUTH State NJ Zip Code 07703

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 35
County MONMOUTH Municipality EATONTOWN BOBO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as above

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/3/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15.5 ft.

Well finished to 14.5 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ No

Static water level after drilling 3 ft.

Water level was measured using no scope

Well was developed for 2 hours at 1.0 gpm

Method of development pumping

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method HSA

Drilling Fluid none Type of Rig CME 55

Name of Driller Wellington Reeve

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. J1455

Name of Drilling Company _____

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|--------------------|
| Inner Casing | 0 | 4.5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 4.5 | 14.5 | 4 | fig. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3.5 | 15.5 | | #1 Marie |
| Annular Seal/Grout | 0 | 3. | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| Depth | Description |
|----------|-----------------------------|
| 0-1' | Dark brown silty |
| 1'-2' | sand |
| 2'-4' | Gray brown sand |
| 4'-15.5' | olive/gray/brown silty sand |
| | Olive brown silty sand |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Wellington Reeve QR Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32801
Atlas Sheet Coordinates 29 : 13 : 831 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SHELPH-PW-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. CN09 MW36
County MONMOUTH Municipality RATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/4/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15.5 ft.Well finished to 14.5 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 4 ft.Water level was measured using m-scopeWell was developed for 2 hours at 1.0 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig CME 55Name of Driller Wellington ReeveHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. J 1455

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 4.5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 4.5 | 14.5 | 4 | fig. 10 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3.5 | 15.5 | | #1 Morie |
| Annular Seal/Grout | 0 | 3.5 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

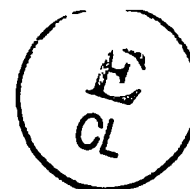
GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|-----------|----------------------------------|
| 0-2' | Brown to black sand
with silt |
| 2'-6' | Light brown sand,
wet 5' |
| 6'-10' | orange brown sand |
| 10'-12' | yellow brown sand |
| 12'-15.5' | Light brown sand |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Wellington Reeve (Signature) Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32822
Atlas Sheet Coordinates 29 : 13 : 831 ☐

OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG 167 ATT: SKIRM-PW-KV
City FT. MONMOUTH State NJ Zip Code 07703

WELL LOCATION - If not the same as owner please give address. Owner's Well No. B6 MW06B
County MONMOUTH Municipality RATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as above

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/10/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. #
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 15 ft.

Well finished to 14 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ No

Static water level after drilling 3.5 ft.

Water level was measured using m-scope

Well was developed for 2 hours at 2 gpm

Method of development pumping

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Method HSA

Drilling Fluid none Type of Rig CME 55

Name of Driller Wellington Reeve

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

N.J. License No. J 1455

Name of Drilling Company JAMES C. ANDERSON ASSOC., INC.

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|-------------------|
| Inner Casing | 0 | 4 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 4 | 14 | 4 | fig. 10 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3.5 | 15 | | #1 Morie |
| Annular Seal/Grout | 0 | 3.5 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

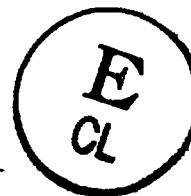
(Copies of other geologic logs and/or geophysical logs should be attached.)

| Depth | Description |
|--------|-------------------------|
| 0-6' | yellow light brown sand |
| 6'-8' | Brown sand with silt |
| 8'-15' | Black silt |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Wellington Reeve Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32823
Atlas Sheet Coordinates 29 : 13 : 831OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 187 APT. SILEM PW-KV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW09B
County MONMOUTH Municipality EATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/10/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 5 ft.Water level was measured using m-scopeWell was developed for 2.0 hours at 1.0 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B.57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD 1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
(From land surface) | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | fig. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 3 | 15 | | #1 Marie |
| Annular Seal/Grout | 0 | 3 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|----------|---------------------------|
| 0-2' | Brown silty sand |
| 2'-4' | Green-brown sand |
| 4'-9.5' | Green-brown silty
sand |
| 9.5'-15' | Dark brown-black
silt |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steve Burger 90 Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32604Atlas Sheet Coordinates 29 : 13 : 821 ☐

OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SKLEN-PW-KV
City FT. MONMOUTH State NJ Zip Code 07703

WELL LOCATION - If not the same as owner please give address. Owner's Well No. B7MW07B
County MONMOUTH Municipality KATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address same as above

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/10/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 16 ft.Well finished to 15 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 7.5 ft.Water level was measured using m-scopeWell was developed for 2 hours at 1.0 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig CME 55Name of Driller Wellington ReeveHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. J1455

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 15 | 4 | fig. 10 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 4 | 16 | | #1 Marie |
| Annular Seal/Grout | 0 | 4 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or geophysical logs should be attached.)

| Depth | Description |
|---------|-------------------|
| 0-2.5' | Brown sand |
| 2.5'-4' | yellow brown sand |
| 4'-10' | olive sand |
| 10'-16' | light brown sand |

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature Wellington Reeve QD Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32605
Atlas Sheet Coordinates 29 : 13 : 821 ☐OWNER IDENTIFICATION - Owner U. S. ARMY (DIRECTORATE)
Address BLDG. 167 ATT: SLEPM-PH-EV
City FT. MONMOUTH State NJ Zip Code 07703WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 10B
County MONMOUTH Municipality EATONTOWN BORO Lot No. 1,1,8.01 Block No. 1,53,54
Address Same as aboveTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 1/10/95
Regulatory Program Requiring Well OWNER INVESTIGATION Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 14.5 ft.Well finished to 14.5 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.0 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 3.5 ft.Water level was measured using m-scopeWell was developed for 2.0 hours at 1 gpmMethod of development pumpingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Method HSADrilling Fluid none Type of Rig Mobile B-57Name of Driller Steve BurgerHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. JD 1624

Name of Drilling Company _____

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | 0 | 4.5 | 4 | flush joint pvc |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 4.5 | 14.5 | 4 | fig. .010 slot pvc |
| Tail Piece | | | | |
| Gravel Pack | 2.5 | 14.5 | | #1 marie |
| Annular Seal/Grout | 0 | 2.5 | | cement-bentonite |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG

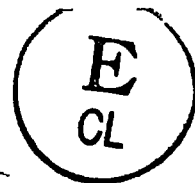
(Copies of other geologic logs and/or
geophysical logs should be attached.)

| Depth | Description |
|----------|----------------------------------|
| 0-4' | Brown/olive brown
silty sand |
| 4'-6' | Brown/yellow brown
silty sand |
| 6'-14.5' | Gray silty sand |

JAMES C. ANDERSON ASSOC. INC.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Steve Burger (90) Date 4-19-95

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29-32894
Atlas Sheet Coordinates 29 13 843 ☐

OWNER IDENTIFICATION - Owner MONMOUTH CO. BLDGS. & GEO
Address 250 CENTER STREET
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-4
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK ROAD

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 3 / 29 / 95
Regulatory Program Requiring Well UST Case I.D. #
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) PMK Tele. # 908-686-0044

WELL CONSTRUCTION

Total depth drilled 17 ft.

Well finished to 17 ft.

Borehole diameter:

Top 11 in.

Bottom 11 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 9 ft.

Water level was measured using M SCOPE

Well was developed for .30 hours at 2.5 gpm

Method of development SUBMERSIBLE PUMP

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity gpm

Pump type:

Drilling Method HOLLOW STEM AUGER

Drilling Fluid Type of Rig CT450

Name of Driller MICHAEL ASSANTE

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 775

Name of Drilling Company PLAINFIELD WELL DRILLING

| | Depth to Top (ft.)
[From land surface] | Depth to Bottom (ft.) | Diameter (inches) | Type and Material |
|---|---|-----------------------|-------------------|----------------------------|
| Inner Casing | .8 | 5 | 4 | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 17 | 4 | #20 SLOT PVC |
| Tail Piece | | | | |
| Gravel Pack | 4 | 17 | | #2 GRAVEL |
| Annular Seal/Grout | 0 | 4 | | NEAT CEMENT
& BENTONITE |
| Method of Grouting | GRAVITY DISPLACEMENT | | | |

GEOLOGIC LOG

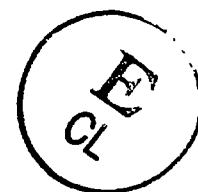
(Copies of other geologic logs and/or geophysical logs should be attached.)

0 - 6" BLACKTOP
6" - 15' SAND & GRAVEL
15' - 17' SAND & GRAVEL
WITH SOME SILT

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature [Signature] Date 4/10/95

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32895
Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CO. BLDGS. & GRO
Address 250 CENTER STREET
City FREEHOLD State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-5
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK ROAD

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 3 / 29 / 95
Regulatory Program Requiring Well UST Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) PMK Tele. # 908-686-0044

WELL CONSTRUCTION

Total depth drilled 17 ft.

Well finished to 17 ft.

Borehole diameter:

Top 11 in.

Bottom 11 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ No

Static water level after drilling 8 ft.

Water level was measured using M SCOPE

Well was developed for .20 hours at 2.5 gpm

Method of development SUBMERSIBLE PUMP

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HOLLOW STEM AUGER

Drilling Fluid _____ Type of Rig CT450

Name of Driller MICHAEL ASSANTE

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

N.J. License No. 775

Name of Drilling Company PLAINFIELD WELL DRILLING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | .5 | 5 | 4 | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 5 | 17 | 4 | #20 SLOT PVC |
| Tail Piece | | | | |
| Gravel Pack | 4 | 17 | | #2 GRAVEL |
| Annular Seal/Grout | 0 | 4 | | NEAT CEMENT |
| Method of Grouting | GRAVITY DISPLACEMENT | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0 - 6" BLACKTOP
6" - 12' SAND & GRAVEL
12' - 17' SAND AND GRAVEL
WITH SOME SILT

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature [Signature] Date 4/10/95

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

MONITORING WELL RECORD

Well Permit No. 29-32896
Atlas Sheet Coordinates 29 13 843OWNER IDENTIFICATION - Owner MONMOUTH CO. BLDGS. & GRO
Address 250 CENTER STREET
City FREEHOLD State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. SVE-1
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK ROADTYPE OF WELL (as per Well Permit Categories) GAS VENT Date well completed 3 / 30 / 95
Regulatory Program Requiring Well UST Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) PMK Tele. # 908-686-0044

WELL CONSTRUCTION

Total depth drilled 11 ft.Well finished to 10 ft.

Borehole diameter:

Top 11 in.Bottom 11 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 7 ft.Water level was measured using M SCOPEWell was developed for .30 hours at 2.5 gpmMethod of development SUBMERSIBLE PUMPWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HOLLOW STEM AUGERDrilling Fluid _____ Type of Rig CT450Name of Driller MICHAEL ASSANTEHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 775Name of Drilling Company PLAINFIELD WELL DRILLING

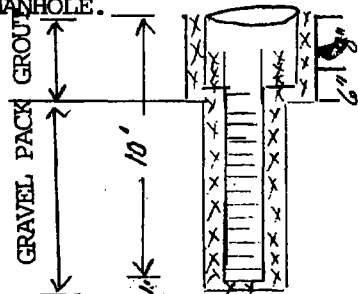
| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | .8 | | |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | .8 | 10 | 4 | PVC #20 |
| Tail Piece | | | | |
| Gravel Pack | .8 | 10 | | #2 GRAVEL |
| Annular Seal/Grout | 0 | .8 | | NEAT CEMENT |
| Method of Grouting | GRAVITY DISPLACEMENT | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0 - 6" BLACKTOP

6" - 11' SAND & GRAVEL

TOP 6" OF WELL SCREEN IS NOT SLOTTED.
THAT PART OF SCREEN WAS GROUTED AS WAS
FLUSH MOUNT MANHOLE.I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Date

4/10/95

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 32897
Atlas Sheet Coordinates 29: 13: 843 ☐OWNER IDENTIFICATION - Owner MONMOUTH CO. BLDGS. & GRO
Address 250 CENTER STREET
City FREEHOLD State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. AS-1
County _____ Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address MONMOUTH PINE BROOK ROADTYPE OF WELL (as per Well Permit Categories) INJECTION Date well completed 3 / 30 / 95
Regulatory Program Requiring Well UST Case I.D. # _____
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) PMK Tele. # 908-686-0044

WELL CONSTRUCTION

Total depth drilled 30 ft.Well finished to 23 ft.Borehole diameter:
Top 8.5 in.Bottom 8.5 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 7 ft.Water level was measured using M SCOPEWell was developed for .30 hours at 1.5 gpmMethod of development SUBMERSIBLE PUMPWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method HOLLOW STEM AUGERDrilling Fluid _____ Type of Rig CT450Name of Driller MICHAEL ASSANTEHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 775Name of Drilling Company PLAINFIELD WELL DRILLING

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|----------------------------|
| Inner Casing | .5 | 18 | 2 | PVC |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | 18 | 23 | 2 | #20 SLOT PVC |
| Tail Piece | | | | |
| Gravel Pack | 16 | 23 | | #2 GRAVEL |
| Annular Seal/Grout | 0 | 16 | | NEAT CEMENT
& BENTONITE |
| Method of Grouting | PRESSURE PUMPED | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)

0 - 6" TOPSOIL
6" - 15' SAND & GRAVEL
15' - 23' SAND & GRAVEL W/SILT
23' - 30' SAND & LARGE GRAVEL
WELL WAS GROUTED WITH BENTONITE
& NEAT CEMENT LAYER FROM 30' TO
23'

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Date 4/10/95

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 33763
Atlas Sheet Coordinates 29: 13: 597OWNER IDENTIFICATION - Owner US ARMY - FORT MONMOUTH
Address BLDG 167 DEH ENVIR
City FT MONMOUTH State NJ Zip Code WELL LOCATION - If not the same as owner please give address. Owner's Well No. 2018 mw1
County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A
Address BLDG 2018 DEH ENVIR FORT MONMOUTHTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9/12/95
Regulatory Program Requiring Well UST Case I.D. # 90-09-05-1818
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 16 ft.Well finished to 16 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☐ above grade
☒ flush mountedIf finished above grade, casing
height (stick up) above land
surface 0 ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 6 ft.Water level was measured using a TapeWell was developed for 15 hours at 3 gpmMethod of development MixingWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity NA gpmPump type: NADrilling Method HSADrilling Fluid NA Type of Rig A300Name of Driller Gary ParentHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1275Name of Drilling Company GARY PARENT/SHORE DRUGS, INC

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | 0 | 4 | 4 | PVC |
| Outer Casing
(Not Protective Casing) | — | — | — | |
| Screen
(Note slot size) | 4 | 16 | 4 | PVC 020 |
| Tail Piece | — | — | — | |
| Gravel Pack | 3 | 16 | 12 | #2 Sand |
| Annular Seal/Grout | 0 | 3 | 12 | Bent Slurry |
| Method of Grouting | Tremie Pipe | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0 - 1' top soil
1' - 5' Tan Sandy Silt
5' - 10' Mottled green/tan Silty clay
10' - 16' dark green silty clayI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Date

9/13/95

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 34753
Atlas Sheet Coordinates 29: 13: 829 ☐OWNER IDENTIFICATION - Owner MED MONMOUTH REALTY
Address 1 COLDSTREAM WAY & PINE BROOK
City TINTON FALLS State NJ Zip Code WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-1A
County MONMOUTH Municipality TINTON FALLS BO Lot No. 13B, 1201 Block No. 114
Address 1 COLDSTREAM WAY & PINE BROOKTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 2/10/96
Regulatory Program Requiring Well UST Case I.D. # CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 10.5 ft.Well finished to 10.5 ft.

Borehole diameter:

Top 12 in.Bottom 12 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.5 ft.Was steel protective casing installed?
☒ Yes ☐ NoStatic water level after drilling 1 ft.Water level was measured using a tapeWell was developed for .5 hours at 3 gpmMethod of development MaxnoWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity NA gpmPump type: NADrilling Method HSADrilling Fluid NA Type of Rig A300Name of Driller Gary ParentHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1275Name of Drilling Company GARY PARENT/SHORE DRILLING, INC.

| | Depth to
Top (ft.)
(From land surface) | Depth to
Bottom (ft.) | Diameter
(Inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | <u>2.5</u> | <u>1.5</u> | <u>4</u> | <u>PVC</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>—</u> | <u>—</u> | |
| Screen
(Note slot size) | <u>.5</u> | <u>10.5</u> | <u>4</u> | <u>PVC 020</u> |
| Tail Piece | <u>—</u> | <u>—</u> | <u>—</u> | |
| Gravel Pack | <u>.25</u> | <u>10.5</u> | <u>12</u> | <u>#2 Sand</u> |
| Annular Seal/Grout | <u>0</u> | <u>.25</u> | <u>12</u> | <u>Best Slurry</u> |
| Method of Grouting | <u>1 Minute Pipe</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0 - 3' fill
3' - 10.5' med Sand + siltI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Gary ParentDate 2/13/96

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 34754
Atlas Sheet Coordinates 29 13 829 ☐OWNER IDENTIFICATION - Owner MID MONMOUTH REALTY
Address 1 COLDSTREAM WAY & PINE BROOK
City TINTON FALLS State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address _____ Owner's Well No. MW 6
County MONMOUTH Municipality TINTON FALLS BO Lot No. 13B, 1201 Block No. 114
Address 1 COLDSTREAM WAY & PINE BROOKTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 2, 10, 96
Regulatory Program Requiring Well USP Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 11 ft.Well finished to 11 ft.

Borehole diameter:

Top 4 in.Bottom 4 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.5 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 3 ft.Water level was measured using a TaperWell was developed for 1.5 hours at 3 gpmMethod of development Centrifugal PumpWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity NA gpmPump type: NADrilling Method Hand Driven CasingDrilling Fluid NA Type of Rig NAName of Driller Gary ParentHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1275Name of Drilling Company GARY PARENT/SHORE DRILG. INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | <u>2.5</u> | <u>1</u> | <u>2</u> | <u>Pvc</u> |
| Outer Casing
(Not Protective Casing) | <u>—</u> | <u>—</u> | <u>—</u> | |
| Screen
(Note slot size) | <u>1</u> | <u>11</u> | <u>2</u> | <u>PVC 220</u> |
| Tail Piece | <u>—</u> | <u>—</u> | <u>—</u> | |
| Gravel Pack | <u>1.5</u> | <u>11</u> | <u>4</u> | <u>#2 Sand</u> |
| Annular Seal/Grout | <u>0</u> | <u>1.5</u> | <u>4</u> | <u>Bent Slurry</u> |
| Method of Grouting | <u>Tremie Pipe</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0 - 1' Top Soil
1' - 11' med Sand + siltI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.

Driller's Signature

Gary Parent

Date

2/13/96

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 - 34755
Atlas Sheet Coordinates 29 : 13 : 829 ☐OWNER IDENTIFICATION - Owner MID MONMOUTH REALTY
Address 1 COLDSTREAM WAY & PINE BROOK
City TINTON FALLS State NJ Zip Code WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW 7
County MONMOUTH Municipality TINTON FALLS BO Lot No. 13B, 1201 Block No. 114
Address 1 COLDSTREAM WAY & PINE BROOKTYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 2/10/96
Regulatory Program Requiring Well UST Case I.D. # CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 9.5 ft.Well finished to 9.5 ft.

Borehole diameter:

Top 4 in.Bottom 4 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface 2.5 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 3 ft.Water level was measured using a tapeWell was developed for 1.5 hours at 3 gpmMethod of development Centrifugal PumpWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity NA gpmPump type: NADrilling Method Hand Driven CasingDrilling Fluid NA Type of Rig NAName of Driller Gary ParentHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None (D) C B AN.J. License No. 1275Name of Drilling Company GARY PARENT/SHORE DRILG. INC.

| | Depth to
Top (ft.)
[From land surface] | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|--------------------|
| Inner Casing | <u>2.5</u> | <u>1</u> | <u>2</u> | <u>PVC</u> |
| Outer Casing
(Not Protective Casing) | | | | |
| Screen
(Note slot size) | <u>1</u> | <u>9.5</u> | <u>2</u> | <u>PVC 020</u> |
| Tail Piece | | | | |
| Gravel Pack | <u>1.5</u> | <u>9.5</u> | <u>4</u> | <u>#2 Sand</u> |
| Annular Seal/Grout | <u>0</u> | <u>1.5</u> | <u>4</u> | <u>Bent Slurry</u> |
| Method of Grouting | <u>Tremie Pipe</u> | | | |

GEOLOGIC LOG

(Copies of other geologic logs and/or
geophysical logs should be attached.)0 - 1' Top soil
1 - 9.5' med sand + siltI certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
State rules and regulations.Driller's Signature Gary ParentDate 2/13/96

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

**WELL RECORD**

Well Permit Number

29 - 35236

Atlas Sheet Coordinates

29 - 13 - 883

OWNER Redacted - Privacy ActAddress 22 SHERWOOD DR.City EATONTOWNState NJ

Zip Code

WELL LOCATION ADDRESS 22 SHERWOOD DR.

Owner's Well No.

County MONMOUTHMunicipality EATONTOWN BOROLot No. 1Block No. 93.7WELL USE IRRIGATIONDATE WELL STARTED 5 / 06 / 96DATE WELL COMPLETED 5 / 06 / 96**WELL CONSTRUCTION**Total Depth Drilled 119 ft.Finished Well Depth 119 ft.

Borehole Diameter:

Top 8.5 in.Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or
ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | +1.0 | 94 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 94 | 114 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 114 | 119 | 4 | PVC | Sched. 40 |
| Gravel Pack | 84 | 119 | 8.5 | Blended | .025 |
| Grout | 3.5 | 84 | 8.5 | Neat Cement Bentonite | 0 lbs
350 lbs |

RECORD OF TESTTest Date 5 / 6 / 96Static Water Level 11 ft. below land surface
Measured Tape

Water Level Measured Using

Pumping Water Level 75 ft. below land surfaceWell Was Pumped Using Air liftWell Yield 30 gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

PERMANENT PUMPING EQUIPMENTInstalled by M. Cantillo Reg. No. 001571Pump Type SubmersibleDepth of Pump below land surface 80 ft.Capacity 12 gpm Horsepower 3/4Grouting Method Pressure through tremie pipeDrilling Method Mud rotary**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0- 40 Med ochre sand
40- 50 Green med sand
50- 65 Green clay w/med green sand
65- 70 Med dark green sand
70- 90 Fine & med green & black sand
90- 95 Fine & med black sand
95-100 Fine & med black sand w/shells
100-119 Fine & med black sand

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) Benjamin PrimostDriller's Signature Benjamin PrimostRegistration No. J1376 Date 5 / 23 / 96

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

5/24/965/24/965/24/96



5/29/96

WELL RECORD

Well Permit Number

29 - 35462

Atlas Sheet Coordinates

29 : 13 : 579

OWNER MATZEL & MUMFORD @ WILLOWAddress 100 VILLAGE CT.City HAZLETState NJ

Zip Code _____

WELL LOCATION ADDRESS POND VIEW DR.County MONMOUTHMunicipality TINTON FALLS BOOwner's Well No. 1.02Block No. 55WELL USE DOMESTICDATE WELL STARTED 8 / 22 / 96
DATE WELL COMPLETED 8 / 22 / 96**WELL CONSTRUCTION**Total Depth Drilled 181 ft.Finished Well Depth 181 ft.

Borehole Diameter:

Top 8.5 in.Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or
_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | +1.0 | 156 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 156 | 176 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 176 | 181 | 4 | PVC | Sched. 40 |
| Gravel Pack | 146 | 181 | 8.5 | Blended | .025 |
| Grout | 3.5 | 146 | 8.5 | Neat Cement Bentonite | 0 lbs
600 lbs |

RECORD OF TESTTest Date 8 / 22 / 96Static Water Level 19 ft. below land surfaceWater Level Measured Using Measured TapePumping Water Level 125 ft. below land surfaceWell Was Pumped Using Air liftWell Yield 60 gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

Grouting Method Pressure through tremie pipeDrilling Method Mud rotary**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0- 5 Clayey brown sand

5- 10 Tan-green clay w/black sand

10- 40 Silty green clay w/fine black sand

40- 140 Gray clay

140- 150 Fine & med black sand

150- 181 Fine & med gray sand

PERMANENT PUMPING EQUIPMENTInstalled by D. Ulbricht Reg. No. JD0523Pump Type SubmersibleDepth of Pump below land surface 100 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) Benjamin PrimostDriller's Signature [Signature]Registration No. JD13762 Date 10 / 4 / 96

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

10/1/96

10/7/96

10/7/96

10/31/96

WELL RECORD

Well Permit Number

29 - 36178

Atlas Sheet Coordinates

29 13 579OWNER MATZEL & MUMFORD @ WILLOWAddress 100 VILLAGE CTCity HAZLETState NJ

Zip Code

WELL LOCATION ADDRESS POND VIEW DR.

Owner's Well No.

County MONMOUTHMunicipality TINTON FALLS BOLot No. 1.10Block No. 55WELL USE DOMESTICDATE WELL STARTED 1 / 22 / 97DATE WELL COMPLETED 1 / 22 / 97**WELL CONSTRUCTION**Total Depth Drilled 182 ft.Finished Well Depth 182 ft.

Borehole Diameter:

Top 8.5 in.Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/each no.) |
|---|--------------------|-----------------------|-------------------|--------------------------|----------------------------|
| Single/Inner Casing | +1.0 | 157 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 157 | 177 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 177 | 182 | 4 | PVC | Sched. 40 |
| Gravel Pack | 147 | 182 | 8.5 | Blended | .025 |
| Grout | 3.5 | 147 | 8.5 | Neat Cement
Bentonite | 0 lbs
600 lbs |

RECORD OF TESTTest Date 1 / 22 / 97Static Water Level 17 ft. below land surfaceWater Level Measured Using Measured TapePumping Water Level 126 ft. below land surfaceWell Was Pumped Using Air liftWell Yield 50 gpmIf Pump Tested: Discharge Rate gpmDuration of Test hoursGrouting Method Pressure through tremie pipeDrilling Method Mud rotary**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0- 5 Clayey green/brown sand5- 40 Green clay40- 150 Gray clay150- 160 Med. black sand160- 182 Fine & med. gray sand**PERMANENT PUMPING EQUIPMENT**Installed by S. Foster Reg. No. MD 1115Pump Type SubmersibleDepth of Pump below land surface 100 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) Benjamin PrimostDriller's Signature [Signature]Registration No. MD13752Date 3 / 19 / 97

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

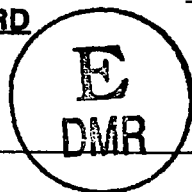
3/21/97

3/21/97

3/21/97

10/31/96

WELL RECORD



Well Permit Number

29 - 36179

Atlas Sheet Coordinates

29 : 13 : 579

OWNER MATZEL & MEMFORD & WILLOWAddress 100 VILLAGE CTCity HAZLETState NJ

Zip Code

WELL LOCATION ADDRESS POND VIEW DR.

Owner's Well No.

County MORRISMunicipality TINTON FALLS BOLot No. 1.09Block No. 55WELL USE DOMESTICDATE WELL STARTED 1 / 15 / 97DATE WELL COMPLETED 1 / 15 / 97

WELL CONSTRUCTION

Total Depth Drilled 188 ft.Finished Well Depth 188 ft.Borehole Diameter: 8.5Top 8.5 in.

Bottom _____ in.

Well Casing Begins:

_____ ft. above grade or

_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | +1.0 | 163 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 163 | 183 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 183 | 188 | 4 | PVC | Sched. 40 |
| Gravel Pack | 153 | 188 | 8.5 | Blended | .025 |
| Grout | 3.5 | 153 | 8.5 | Neat Cement Bentonite | 625 lbs |

RECORD OF TEST 15 97Test Date 1 / 17 / 97

Static Water Level _____ ft. below land surface

Water Level Measured Using 30

Pumping Water Level _____ ft. below land surface

Well Was Pumped Using 30

Well Yield _____ gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

PERMANENT PUMPING EQUIPMENT

Installed by S. Foster Reg. No. MD1115Pump Type SubmersibleDepth of Pump below land surface 120 ft.

Capacity _____ gpm Horsepower _____

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) Benjamin PrimostDriller's Signature JD13762Registration No. 3 12 97

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

3/14/97

3/14/97

3/14/97

WELL RECORDWell Permit Number
29 - 36179Atlas Sheet Coordinates
29 : 13 : 579OWNER **MATZEL & MUMFORD @ WILLOW POND**Address **100 VILLAGE CT.**City **HAZLET**State **NJ**

Zip Code

WELL LOCATION ADDRESS **POND VIEW DR.**

Owner's Well No.

County **MONMOUTH**Municipality **TINTON FALLS BO**Lot No. **1.09**Block No. **55**WELL USE **DOMESTIC**DATE WELL STARTED **1 / 15 / 97**
DATE WELL COMPLETED **1 / 15 / 97****WELL CONSTRUCTION**Total Depth Drilled **188** ft.Finished Well Depth **188** ft.Borehole Diameter:
Top **8.5** in.
Bottom **8.5** in.Well Casing Begins:
1.0 ft. above grade or
ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/each no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|----------------------------|
| Single/Inner Casing | + 1.0 | 163 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 163 | 183 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 183 | 188 | 4 | PVC | Sched. 40 |
| Gravel Pack | 153 | 188 | 8.5 | Blended | .025 |
| Grout | 3.5 | 153 | 8.5 | Neat Cement Bentonite | 0 lbs
625 lbs |

RECORD OF TESTTest Date **1 / 15 / 97**Static Water Level **17** ft. below land surfaceWater Level Measured Using **Measured Tape**Pumping Water Level **130** ft. below land surfaceWell Was Pumped Using **Air Lift**Well Yield **30** gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

PERMANENT PUMPING EQUIPMENTInstalled by **S. Foster** Reg. No. **MD1115**Pump Type **Submersible**Depth of Pump below land surface **120** ft.Capacity **20** gpm Horsepower **1**

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company **PICKWICK WELL DRILLING**Well Driller (Print) **Benjamin Primost**Driller's Signature *[Signature]*Registration No. **MD13762** Date **03 / 12 / 97**Grouting Method **Pressure through tremie**
Drilling Method **Mud Rotary****GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0- 5 Clayey brown sand
5- 10 Tan green clay
10- 40 Silty green clay
40- 140 Gray clay
140- 155 Fine & med. black sand
155- 188 Fine & med. gray sand

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

3/14/97

3/14/97

3/14/97

11/7/96

WELL RECORD



Well Permit Number
29 36202

Atlas Sheet Coordinates
29 13 579

OWNER **MATZEL & HUNFORD @ WILLOW**

Address **100 VILLAGE CT**

HAZLET

City _____ State **NJ**

Zip Code _____

WELL LOCATION ADDRESS **POND VIEW DR**

County **BORNEOUTH**

Municipality **TINTON FALLS DO**

Owner's Well No. **55**
Lot No. **1.25** Block No. _____

WELL USE **DOMESTIC**

DATE WELL STARTED **5 / 1 / 97**
DATE WELL COMPLETED **5 / 1 / 97**

WELL CONSTRUCTION

Total Depth Drilled **182** ft.

Finished Well Depth **182** ft.

Borehole Diameter:
Top **8.5** in.
Bottom **8.5** in.

Well Casing Begins:
1.0 ft. above grade or
_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | +1.0 | 157 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 157 | 177 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 177 | 182 | 4 | PVC | Sched. 40 |
| Gravel Pack | 147 | 182 | 8.5 | Blended | .025 |
| Grout | 3.5 | 147 | 8.5 | Neat Cement Bentonite | 0 lbs
625 lbs |

RECORD OF TEST

Test Date **5 / 1 / 97**

Static Water Level **17** ft. below land surface
Measured Tape

Water Level Measured Using _____

Pumping Water Level **126** ft. below land surface

Well Was Pumped Using **Air lift**

Well Yield **50** gpm

If Pump Tested: Discharge Rate _____ gpm
Duration of Test _____ hours

Grouting Method **Pressure through tremie pipe**
Drilling Method **Mud rotary**

PERMANENT PUMPING EQUIPMENT

Installed by **T. Wheaton** Reg. No. **0016656**

Pump Type **Submersible**

Depth of Pump below land surface **110** ft.

Capacity **20** gpm Horsepower **1**

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

PICKWICK WELL DRILLING

Drilling Company _____

Well Driller (Print) **Benjamin Polmont**

Driller's Signature _____

Registration No. **10 13762** Date **6 / 9 / 97**

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0- 10 Clayey brown sand

10- 30 Blank sand w/green clay

30- 150 Gray clay

150- 182 Fine & medium gray sand w/black sand

COPIES:

White - DEP
6/11/97

Canary - Driller
6/11/97

Pink - Owner

Goldenrod - Health Dept.
6/11/97

PCL XL error

Subsystem: KERNEL

Error: IllegalTag

Operator: 0x82

Position: 13

1682

DWR-138 M
11/96

New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36563Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CITY DEPT OF BLDG
Address 250 CENTER ST
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No.
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

DATE WELL STARTED 3 / 3 / 97
DATE WELL COMPLETED 3 / 3 / 97
TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. # **WELL CONSTRUCTION**

Total depth drilled 11 ft.
Well finished to 11 ft.

Borehole diameter:
Top 10 in.
Bottom 10 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 9 ft.

Water level was measured using ELE. TAP

Well was developed for N/A hours
at gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid WATER Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (B) C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) WILLIAM A. SHINN JR.

Driller's Signature W.A. Shinn Jr.

Registration No. MD1289 Date 3-1-3 1997

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | -0- | 2 | 4 | PVC | SCH. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 2 | 10 | 4 | PVC | SCH. 40 .020 SLOT |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 10 | 11 | 4 | PVC | SCH. 40 |
| Gravel Pack | 1 | 11 | 10 | MORIE #2 | |
| Grout | 0 | 1 | 10 | Neat Cement Bentonite | 30 lbs. = lbs. |

Grouting Method GRAVITY PLACEMENT
Drilling Method H.S.A.

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

| |
|------------------------|
| 0 |
| 1 MED-FINE GREEN SAND |
| 9 - WATER |
| 11 MED-FINE GREEN SAND |
| |
| |
| |
| |
| |
| |
| |
| |

COPIES: White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36564

Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CTY DEPT OF BLDG
Address 250 CENTER ST
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. UP-1
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

DATE WELL STARTED 2 127 1997
DATE WELL COMPLETED 2 127 1997
TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well IST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 5 ft.
Well finished to 4 ft.

Borehole diameter: 2 in.
Top 2 in.
Bottom in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 4.3 ft.

Water level was measured using TAP

Well was developed for N/A hours
at gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) Charles H. Zelberger

Driller's Signature Charles H. Zelberger

Registration No. MD 1066 Date 2 127 1997

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 3 | 1" | pvc | sch 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 3 | 4 | 1" | pvc | sch 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 3 | 5 | 1" | #1 Marine | 94 lbs. |
| Grout | 1 | 3 | | Neat Cement Bentonite | 94 lbs. |

Grouting Method Pressure
Drilling Method H/A

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0' - 6" Top Soil
6" - 5' Pea Gravel
(old TANK Area)

DWR-138 M
11/96



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36565

Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CITY DEPT OF BLDG
Address 250 CENTER ST
City FREEDHOLD State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. VP-2
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

DATE WELL STARTED 2/27/97
DATE WELL COMPLETED 2/27/97

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 5 ft.
Well finished to 5 ft.

Borehole diameter: 8 in.
Top 8 in.
Bottom 8 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling N/A ft.

Water level was measured using _____

Well was developed for _____ hours
at _____ gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☐ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in
accordance with all well permit requirements and applicable
State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) Charles Hitzelberger

Driller's Signature Charles Hitzelberger

Registration No. MD 1066 Date 2/27/97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 4 | 1" | PVC | Sch. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 4 | 5 | 1" | PVC | 20 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 3.5 | 5 | 8" | Mon. 10 | 20 lbs. |
| Grout | 0 | 3.5 | | Neat Cement Bentonite | 20 lbs. |

Grouting Method Pressure
Drilling Method AB

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5' Dry Limestone
5-14' Green Sand

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELREC 163 1557

New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORDWell Permit No. 29 - 36566Atlas Sheet Coordinates 29 : 13 : 843OWNER IDENTIFICATION - Owner MONMOUTH CTY DEPT OF BLDGAddress 250 CENTER STCity FREEDHOLDState NJ

Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. 18-3County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97Address PINE BROOK RDDATE WELL STARTED 2 127 199DATE WELL COMPLETED 2 07 199TYPE OF WELL (as per Well Permit Categories) GAS VENTRegulatory Program Requiring Well USTCase I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTIONTotal depth drilled 5 ft.Well finished to 5 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling N/A ft.

Water level was measured using _____

Well was developed for N/A hours
at _____ gpmMethod of development N/AWas permanent pumping equipment installed? ☐ Yes ☐ NoPump capacity N/A gpmPump type: N/ADrilling Fluid N/A Type of Rig D-50Health and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in
accordance with all well permit requirements and applicable
State rules and regulations.

Drilling Company TABASCO DRILLING CORP.Well Driller (Print) Charles KozubDriller's Signature Charles KozubRegistration No. PD 1066 Date 2 127 199

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 4 | 1" | PVC | Sch 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 4 | 5 | 1" | PVC | 20 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 3.5 | 5 | 8" | #2 Mon. 16 | 94 lbs. |
| Grout | 0 | 3.5 | | Neat Cement Bentonite | ___ lbs. |

Grouting Method Prepacked
Drilling Method HSA**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0-5 Green fine
Med Sand traces
silt



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36567

Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CTY DEPT OF BLDG
Address 250 CENTER ST
City FREEHOLD State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. VP-4
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

DATE WELL STARTED 2/27/97
DATE WELL COMPLETED 2/27/97
TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 5 ft.
Well finished to 5 ft.

Borehole diameter:
Top 2 in.
Bottom 2 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling N/A ft.

Water level was measured using N/A

Well was developed for N/A hours
at _____ gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) Charles W. Tabasco

Driller's Signature Charles W. Tabasco

Registration No. MD 1066 Date 2/27/97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 4 | 1" | PVC | 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 4 | 5 | 1" | PVC | .20 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 3.5 | 5 | 8" | Neat Cement Bentonite | 94 lbs. |
| Grout | 0 | 3.5 | | | |

Grouting Method Pressure
Drilling Method N/A

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5 Green Sand w/ silty layer
to line w/ silty layer

New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36568

Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CTY DEPT OF BLDG
Address 250 CENTER ST
City FREEHOLD State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. AS-2
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

DATE WELL STARTED 2/28/97
DATE WELL COMPLETED 2/28/97
TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 30 ft.
Well finished to 30 ft.

Borehole diameter:
Top 8 in.
Bottom 8 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 9 ft.

Water level was measured using TMPC

Well was developed for N/A hours
at _____ gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid Water Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None O B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP

Well Driller (Print) Charles Vitzelberg

Driller's Signature Charles Vitzelberg

Registration No. MP 1066 Date 2/28/97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 25 | 2 | PVC | Sch. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 25 | 28 | 2 | PVC | 205/40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 28 | 30 | 2 | PVC | Sch. 40 |
| Gravel Pack | 22 | 30 | 8 | #4 Mar | 212 lbs. |
| Grout | 0 | 22 | 8 | Neat Cement Bentonite | 18 lbs. |

Grouting Method Pressure
Drilling Method NSH

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-12 fine sand
Multi grain
12-30 light greenish yellow
Med to coarse
Trace of silt

DWR-138 M
11/96



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36569

Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CTY DEPT OF BLDG
Address 250 CENTER ST
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. KS-3
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 28 ft.
Well finished to 28 ft.

Borehole diameter:
Top 8 in.
Bottom 8 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 8.5 ft.

Water level was measured using TAPE

Well was developed for N/A hours
at gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid water Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in
accordance with all well permit requirements and applicable
State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) Charles Hitzelberger

Driller's Signature Charles Hitzelberger

Registration No. MD 1066 Date 2/28/97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 23 | 2 | PVC | Sch. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 23 | 26 | 2 | PVC | 20 S/ch |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 26 | 28 | 2 | PVC | Sch. 40 |
| Gravel Pack | 20 | 28 | 8 | Hy-Monite | |
| Grout | 0 | 20 | 8 | Neat Cement Bentonite | 202 lbs. 18 lbs. |

Grouting Method Pressure
Drilling Method DSH

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0 - 12 Gravel Sand
Mud to line

12-28 Light Greenish
Yellow Sand, Mud to
Green w/ Traces
of silt

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

WELREC 163 1561



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29- 36570

Atlas Sheet Coordinates 29 13 843

OWNER IDENTIFICATION - Owner MONMOUTH CITY DEPT OF BLDG
Address 250 CENTER ST
City FREEDHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. AS-4
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

DATE WELL STARTED 3 / 3 / 97
DATE WELL COMPLETED 3 / 3 / 97

TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 23 ft.
Well finished to 23 ft.

Borehole diameter:
Top 8 in.
Bottom 8 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 9 ft.

Water level was measured using BE. TAPE

Well was developed for N/A hours
at gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-52

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) WILLIAM A. SHINN JR.

Driller's Signature [Signature]

Registration No. MD1289 Date 3 / 3 / 97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 23 | 2 | PVC | SCH. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 23 | 26 | 2 | PVC | SCH. 40
200 SLOT |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 26 | 28 | 2 | PVC | SCH. 40 |
| Gravel Pack | 20 | 28 | 8 | MORIE #2 | |
| Grout | 0 | 20 | 8 | Neat Cement Bentonite | 282 lbs.
18 lbs. |

Grouting Method PRESSURE TREMIE GROUT
Drilling Method H.S.A.

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

| | |
|-----|---|
| 0' | |
| 1' | MED-FINE GREEN SANDS |
| 12' | |
| | LIGHT GREENISH YELLOW SAND
MED. - COARSE with traces
OF SILT. |
| 28' | |

DWR-138 M
11/96

New Jersey Department of Environmental Protection
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. 29- 36571

Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CTY DEPT OF BLDG
Address 250 CENTER ST
City FREEDHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Milk-6
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD

DATE WELL STARTED 2/27/97
DATE WELL COMPLETED 2/27/97

TYPE OF WELL (as per Well Permit Categories) MONITORING DATE WELL COMPLETED 2/27/91
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 55 ft.
Well finished to 53 ft.

Borehole diameter: Top 6.25 in.
Bottom 6.25 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 8 ft.

Water level was measured using TAPG

Well was developed for 14/12 hours
at _____ gpm

Method of development

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-50

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company **TABASCO DRILLING CORP.**

Well Driller (Print) Charles Hitzelberger

Driller's Signature Paul K. Williams

Registration No. MD 1066 Date 2 127 191

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|--|--------------------|-----------------------|-------------------|--------------------------|---------------------------|
| Single/Inner Casing | 0 | 5 | 2 | PVC | Sch 40 |
| Middle Casing
(for triple cased wells only) | | | | | |
| Outer Casing
(largest diameter) | | | | | |
| Open Hole or Screen
(No. Used) | 5 | 15 | 2 | PVC | Sch 40
120 5/8 |
| Blank Casings
(No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 3 | 15 | 8 | #2 mesh | |
| Grout | 0 | 3 | 8 | Neat Cement
Bentonite | 94 lbs.
____ lbs. |

Grouting Method Pressure
Drilling Method ASD

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

3-4 Top Soil
4-15 Mulch Pine green
Syring off + dead
off soil

WELL RECORD



2/28/97

Well Permit Number
29 - 36653Atlas Sheet Coordinates
29: 13 : 579OWNER MATZEL & MUMFORD @ WILLOWAddress 100 VILLAGE COURTCity HAZLETState NJ

Zip Code

WELL LOCATION ADDRESS POND VIEW DRIVECounty BOROUGHMunicipality TINTON FALLS BOOwner's Well No. 1.07Block No. 55WELL USE DOMESTICDATE WELL STARTED 8 / 19 / 97
DATE WELL COMPLETED 8 / 19 / 97

WELL CONSTRUCTION

Total Depth Drilled 180 ft.Finished Well Depth 180 ft.

Borehole Diameter:

Top 8.5 in.
Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or
ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|--------------------------|---------------------------|
| Single/Inner Casing | <u>1.0</u> | <u>155</u> | <u>4</u> | <u>PVC</u> | <u>SCHED. 40</u> |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | <u>155</u> | <u>175</u> | <u>4</u> | <u>PVC</u> | <u>SCHED. 40</u> |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | <u>175</u> | <u>180</u> | <u>4</u> | <u>PVC</u> | <u>SCHED. 40</u> |
| Gravel Pack | <u>145</u> | <u>180</u> | <u>8.5</u> | <u>BLENDED</u> | <u>.025</u> |
| Grout | <u>3.5</u> | <u>145</u> | <u>8.5</u> | Neat Cement
Bentonite | <u>600</u> lbs |

RECORD OF TEST

Test Date 8 / 19 / 97Static Water Level 24 ft. below land surfaceWater Level Measured Using MEASURED TAPEPumping Water Level 124 ft. below land surfaceWell Was Pumped Using AIR LIFTWell Yield 30 gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

Grouting Method PRESSURE THROUGH TEMPE PIPE
Drilling Method MUD ROTARY

PERMANENT PUMPING EQUIPMENT

Installed by T. WHEATON Reg. No. 0016656Pump Type SUBMERSIBLEDepth of Pump below land surface 120 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

PICKWICK WELL DRILLING

Drilling Company

Well Driller (Print) BENJAMIN PRIMOSTDriller's Signature [Signature]Registration No. MD 18742 Date 9 / 29 / 97

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5 CLAYEY MED. BROWN SAND5-30 GRAY CLAY W/ BLACK SAND30-145 GRAY CLAY145-150 GRAY CLAY W/ SAND150-180 FINE GRAY SAND W/ BLACK SAND

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

10/2/97

10/2/97

10/2/97

DWR-138
5/85

New Jersey Department of Environmental Protection
Bureau of Water Allocation

2/28/97

WELL RECORD



Well Permit Number
29 - 36654

Atlas Sheet Coordinates
29 : 13 : 579

OWNER MATZEL & MUMFORD @ WILLOW
100 VILLAGE COURT

Address HAZLET

City _____ State NJ

Zip Code _____

WELL LOCATION ADDRESS POND VIEW DRIVE

County BONMOUTH

Municipality TINTON FALLS BO

Owner's Well No. 1.04 Block No. 55

WELL USE DOMESTIC

DATE WELL STARTED 5 / 23 / 97
DATE WELL COMPLETED 5 / 23 / 97

WELL CONSTRUCTION

Total Depth Drilled 181 ft.

Finished Well Depth 181 ft.

Borehole Diameter:

Top 8.5 in.
Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or
_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | +1.0 | 156 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 156 | 176 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 176 | 181 | 4 | PVC | Sched. 40 |
| Gravel Pack | 146 | 181 | 8.5 | Blended | .025 |
| Grout | 3.5 | 146 | 8.5 | Neat Cement Bentonite | 0 lbs
600 lbs |

RECORD OF TEST

Test Date 5 / 23 / 97

Static Water Level 19 ft. below land surface

Water Level Measured Using Measured Tape

Pumping Water Level 144 ft. below land surface

Well Was Pumped Using Air lift

Well Yield 50 gpm

If Pump Tested: Discharge Rate _____ gpm
Duration of Test _____ hours

Grouting Method Pressure through tremie pipe
Drilling Method Mod rotary

PERMANENT PUMPING EQUIPMENT

Installed by T. Wharton Reg. No. 0016656

Pump Type Submersible

Depth of Pump below land surface 115 ft.

Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

PICKWICK WELL DRILLING

Drilling Company _____

Well Driller (Print) Benjamin Piment

Driller's Signature [Signature]

Registration No. 30 15752 Date 6 / 24 / 97

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0- 5 Clayey brown sand
5- 30 Black sand w/green clay
30- 150 Gray clay w/black sand
150- 181 Fine & medium gray sand w/black sand & shells

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

6/25/97

6/25/97

6/25/97

3/4/97

WELL RECORD



Well Permit Number

29 - 36658

Atlas Sheet Coordinates

29 - 13 - 579

OWNER MATZEL & MUMFORD @ WILLOW

Address 100 VILLAGE COURT

City HAZLET

State NJ

Zip Code

WELL LOCATION ADDRESS POND VIEW DR

Owner's Well No.

County MONMOUTH

Municipality TINTON FALLS BO

Lot No. 1.05

Block No. 55

WELL USE DOMESTIC

DATE WELL STARTED 6 / 18 / 97

DATE WELL COMPLETED 6 / 18 / 97

WELL CONSTRUCTION

Total Depth Drilled 165 ft.

Finished Well Depth 165 ft.

Borehole Diameter:

Top 8.5 in.

Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or

ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | +1.0 | 140 | 4 | PVC | Sched. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 140 | 160 | 4 | PVC | Sched. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 160 | 165 | 4 | PVC | Sched. 40 |
| Gravel Pack | 130 | 165 | 8.5 | Blended | .025 |
| Grout | 3.5 | 130 | 8.5 | Neat Cement Bentonite | 0 lbs
550 lbs |

RECORD OF TEST

Test Date 6 / 18 / 97

Static Water Level 13 ft. below land surface

Water Level Measured Using Measured Tape

Pumping Water Level 112 ft. below land surface

Well Was Pumped Using Air lift

Well Yield 20 gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

Grouting Method Pressure through tremie pipe

Drilling Method Mud rotary

PERMANENT PUMPING EQUIPMENT

Installed by D. Ubricht Reg. No. JD 0523

Pump Type Submersible

Depth of Pump below land surface 130 ft.

Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLING

Well Driller (Print) Benjamin Primont

Driller's Signature

Registration No. 13762

Date 7 / 14 / 97

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0- 5 Clayey brown sand

5- 15 Green clay w/black sand

15- 20 Green clay w/black sand w/gray clay

20- 140 Gray clay w/black sand

140- 145 Fine & med. gray sand

145-165 Fine & med. gray sand w/black sand

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

7/21/97

7/21/97

7/21/97

DWR-138 M
11/96



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 36753

Atlas Sheet Coordinates 29 : 13 : 852

OWNER IDENTIFICATION - Owner LAMONTS CORP
Address 12413 WILLOWS RD NE
City KIRKLAND State WA Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-7R
County MONMOUTH Municipality TINTON FALLS BO Lot No. 31.02 Block No. 114.01
Address 46 PARK RD

DATE WELL STARTED 4 / 8 / 97
DATE WELL COMPLETED 4 / 8 / 97
TYPE OF WELL (as per Well Permit Categories) MONITORING
Regulatory Program Requiring Well ISRA SITE Case I.D.# 88940 & 88A14

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Fluor Daniel GTI Tele. # 609-587-0300

WELL CONSTRUCTION

Total depth drilled 8' ft.
Well finished to 8' ft.

Borehole diameter:
Top 12" in.
Bottom 12" in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 3' ft.

Water level was measured using M-Scope

Well was developed for 1/2 hours
at 3 gpm

Method of development pumping

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Fluid _____ Type of Rig B57 mobile

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TOTAL QUALITY DRILLING

Well Driller (Print) Michael J. Karlunas

Driller's Signature Michael J. Karlunas

Registration No. MD 1328 Date 4 / 10 / 97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 1 1/2 | 4" | PVC | Sch. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 1 1/2 | 8' | 4" | PVC. 020 | Sch. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 1' | 8' | #1 | MORIC | |
| Grout | 0 | 1' | | Neat Cement Bentonite | 47 lbs. 2 lbs. |

Grouting Method GRAVITY
Drilling Method H.S.A

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-6' ORANGE MED. SAND
6'-8' Grey Med. sand

COPIES: White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

WELL RECORD



Well Permit Number

20-36968

Atlas Sheet Coordinates

29-13-862

OWNER Redacted - Privacy ActAddress 1 SHERWOOD DRIVECity EATONTOWNState NJ

Zip Code

WELL LOCATION ADDRESS 1 SHERWOOD DRIVEOwner's Well No. 1County MONMOUTHMunicipality EATONTOWN BOROLot No. 7Block No. 93.8WELL USE IRRIGATIONDATE WELL STARTED 7/18/97DATE WELL COMPLETED 7/18/97

WELL CONSTRUCTION

Total Depth Drilled 80 ft.Finished Well Depth 80 ft.

Borehole Diameter:

Top 8.5 in.Bottom 8.5 in.

Well Casing Begins:

1 ft. above grade or1 ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 1 | 70 | 4 | PVC | Sch 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 70 | 80 | 4 | PVC | Sch 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 65 | 80 | | Natural Sand | |
| Grout | 1 | 65 | | Neat Cement Bentonite | 140 lbs |

RECORD OF TEST

Test Date 7/18/97Static Water Level 10 ft. below land surfaceWater Level Measured Using tape measurePumping Water Level 25 ft. below land surfaceWell Was Pumped Using air liftWell Yield 30 gpmIf Pump Tested: Discharge Rate 20 gpmDuration of Test 1 hoursGrouting Method Pressure thru tremieDrilling Method Mud Rotary

PERMANENT PUMPING EQUIPMENT

Installed by Karl Putman Reg. No. 51054Pump Type SubmersibleDepth of Pump below land surface 70 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company KARL PUTMAN JERSEY WELL DRIG. INC.Well Driller (Print) Karl Putman Pres.Driller's Signature Karl Putman Pres.Registration No. 51054 Date 8/1/97

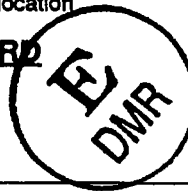
GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5 med. coarse brown sand
5-20 med. coarse tan sand some black clay
20-40 med. coarse orange sand trace
40-60 soft clay + med. Br. sand
60-65 fine med. gray green sand trace
65-80 med. green sand

New Jersey Department of Environmental Protection
Bureau of Water Allocation

WELL RECORD



Well Permit Number

29 - 36969

Atlas Sheet Coordinates

29 13 : 862

OWNER Redacted - Privacy ActAddress 5 SHERWOOD DRIVECity EATONTOWNState NJ

Zip Code

WELL LOCATION ADDRESS 5 SHERWOOD DRIVECounty BORNEOUTHMunicipality EATONTOWN BOROOwner's Well No. 1Lot No. 6Block No. 85.8WELL USE IRRIGATIONDATE WELL STARTED 7 / 26 / 97
DATE WELL COMPLETED 7 / 26 / 97

WELL CONSTRUCTION

Total Depth Drilled 75 ft.Finished Well Depth 75 ft.

Borehole Diameter:

Top 8.5 in.Bottom 8.5 in.

Well Casing Begins:

1 ft. above grade or
1 ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|------------------------------|---------------------------|
| Single/Inner Casing | <u>1</u> | <u>65</u> | <u>4</u> | <u>PVC</u> | <u>Sch 40</u> |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | <u>65</u> | <u>75</u> | <u>4</u> | <u>PVC</u> | <u>Sch 40</u> |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | <u>60</u> | <u>75</u> | | <u>Natural Sand</u> | |
| Grout | <u>1</u> | <u>60</u> | | <u>Neat Cement Bentonite</u> | <u>130</u> lbs |

RECORD OF TEST

Test Date 7 / 26 / 97Static Water Level 9 ft. below land surfaceWater Level Measured Using tape measurePumping Water Level 24 ft. below land surfaceWell Was Pumped Using air liftWell Yield 30 gpmIf Pump Tested: Discharge Rate 20 gpmDuration of Test 1 hoursGrouting Method Pressure thru tremieDrilling Method Mud Rotary

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5 med. coarse tan sand
5-20 med. coarse brown sand
20-30 med. coarse orange sand
30-60 med. br. sand trace of shell
60-65 fine br. green sand trace shell
65-75 med. gray sand

some black
fine
clay

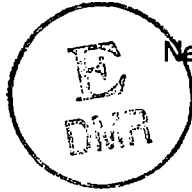
PERMANENT PUMPING EQUIPMENT

Installed by Karl Putman Reg. No. 31054Pump Type SubmersibleDepth of Pump below land surface 65 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company KARL PUTMAN/JERSEY WELL DRUG. INC.Well Driller (Print) Karl Putman Pres.Driller's Signature Karl Putman Pres.Registration No. 31054 Date 8 / 1 / 97

J# 1784

DWR-138 M
11/96

New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29- 37036Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CO. DEPT. OF BUI
Address 250 CENTER ST.
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. SVE-3
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINE BROOK RD.

DATE WELL STARTED 6/20/97
DATE WELL COMPETED 6/20/97
TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ACQUA BELLA, INC. Tele. #

WELL CONSTRUCTION

Total depth drilled 8 ft.
Well finished to 7 ft.

Borehole diameter:
Top 10 in.
Bottom 10 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 6.2 ft.

Water level was measured using TAPE

Well was developed for hours
at gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-120

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) (None) D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) ANDRE H. BOUTOILLE III

Driller's Signature [Signature]

Registration No. JD 14666 Date 6/21/97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|--------------------------|---------------------------|
| Single/Inner Casing | 0 | 3.0 | 4 | PUC | SCH 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used . 0 1 0) | 3.0 | 7.0 | 4 | SCH 40 PUC | SCH 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 2.0 | 7.0 | 10 | more | # 2 |
| Grout | 1.0
7.0 | 2.0
8.0 | 10 | Neat Cement
Bentonite | 50 lbs. |

Grouting Method PRESSURE TREMIE
Drilling Method AUGER

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5' Clayey Silt Some SAND

5-8' GREEN MED. SAND

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

1784

DWR-138 M
11/96

New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 37037Atlas Sheet Coordinates 29 : 13 : 843

OWNER IDENTIFICATION - Owner MONMOUTH CO. DEPT. OF BUI
Address 250 CENTER ST.
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No.
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21-01 Block No. 97
Address PINE BROOK RD.

DATE WELL STARTED 6/20/97
DATE WELL COMPLETED 6/20/97
TYPE OF WELL (as per Well Permit Categories) GAS VENT
Regulatory Program Requiring Well DST Case I.D.# 92-11-23-131752

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ACQUA BELLA, INC. Tele. # **WELL CONSTRUCTION**

Total depth drilled 23 ft.
Well finished to 23 ft.

Borehole diameter:
Top 8 in.
Bottom 8 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface N/A ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 6.2 ft.

Water level was measured using TAPE

Well was developed for hours
at gpm

Method of development N/A

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid N/A Type of Rig D-120

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) (None) D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TABASCO DRILLING CORP.

Well Driller (Print) ANDRE H. BOUTVILLE III

Driller's Signature [Signature]

Registration No. JD 1466 Date 6/21/97

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 19.0 | 2 | PUC | SCH 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used, D/D) | 19.0 | 22.0 | 2 | PUC | SCH 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 22.0 | 23.0 | 2 | PUC | SCH 40 |
| Gravel Pack | 18.0 | 22.0 | 8 | MORIE | # 2 |
| Grout | 0 | 18.0 | 8 | Neat Cement Bentonite | 280 lbs. 50 lbs. |

Grouting Method PRESSURE TREMIE
Drilling Method AUGER

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-5' CLAYEY SILT SOME SAND

5-23.0' GREEN MED. SAND

COPIES: White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.



MONITORING WELL RECORD

Well Permit No. 29 37899
Atlas Sheet Coordinates 29 : 13 : 822OWNER IDENTIFICATION - Director DIRECTORATE OF PUBLIC WORKSAddress BUILDING 167
FORT MONMOUTH NJ
City _____ State _____ Zip Code _____WELL LOCATION MONMOUTH the same as owner please give address OCEANPORT BORO Owner's Well No. N/A B-1 N/A
County BLDG 167 Municipality _____ Lot No. _____ Block No. _____
Address _____ Date well started 12/8/97TYPE OF WELL (as per Well Permit Categories) BORING Date well completed 12/8/97

Regulatory Program Requiring Well _____ Case I.D. # _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) MILLER, DYCE SPEARS INC. Tele. # _____

WELL CONSTRUCTION

Total depth drilled 47' ft.Well finished to N/A ft.Borehole diameter 8"
Top 8" in.Bottom 8" in.Well was finished: ☐ above grade
N/A ☐ flush mountedIf finished above grade, casing
height (stick up) above land
surface N/A ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 30" ft.Water level was measured using M ScopeWell was developed for N/A hours at _____ gpmMethod of development NoneWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: NoneDrilling Method AUGERSDrilling Fluid NONE Type of Rig MOBILE B-53Name of Driller MICHAEL A PRATTHealth and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None (D) C B AN.J. Registration No. HP DRILLING, INC.Name of Drilling Company HP DRILLING, INC.

| | Depth to
Top (ft.)
(From land surface) | Depth to
Bottom (ft.) | Diameter
(inches) | Type and Material |
|---|--|--------------------------|----------------------|-------------------|
| Inner Casing | — | — | — | |
| Outer Casing
(Not Protective Casing) | — | — | — | |
| Screen
(Note slot size) | — | — | — | |
| Tail Piece | — | — | — | |
| Gravel Pack | — | — | — | |
| Annular Seal/Grout | 0 | 47' | | Bentrite/Cement |
| Method of Grouting | Tremie | | | |

GEOLOGIC LOG (Copies of other geologic logs and/or
geophysical logs should be attached.)

0-3" ASPHALT
3" 1.0' GR. BAN. M/F SAND & GRAVEL TR. Silt & Clay
1'-4.5' Greenish BLK. Silty fine SAND TR. Some Silt
4.5-6.5' Green fine SAND TR. Silt wet
6.5-9.5' BAN. TR. Green fine SAND TR. Silt
9.5-12' BLK. Silty fine SAND TR. Gravel
12-18' BLK. Silty fine SAND.
18'-47' BLK. & Green Silty fine SAND
TR. Clay.

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Driller's Signature Michael A Pratt Date 12/12/97

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

5/15/98

WELL RECORDWell Permit Number
29 - 38654Atlas Sheet Coordinates
29: 13 : 584OWNER MONMOUTH REG. HIGH SCHOOL
Address ONE NORMAN J FIELD WAY
City TINTON FALLS State NJ Zip Code _____WELL LOCATION ADDRESS ONE NORMAN J FIELD WAY Owner's Well No. _____
County MONMOUTH Municipality TINTON FALLS BO Lot No. 1.11 Block No. 55WELL USE NON PUBLICDATE WELL STARTED 11 / 04 / 98 ✓
DATE WELL COMPLETED 11 / 04 / 98 ✓**WELL CONSTRUCTION**Total Depth Drilled 173 ft.Finished Well Depth 173 ft.Borehole Diameter: 8.5 in.
Top 8.5 in.
Bottom 8.5 in.Well Casing Begins: 1.0 ft. above grade or
_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/each no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|----------------------------|
| Single/Inner Casing | +1.0 | 158 | 4 | PVC | SCHED. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 158 | 168 | 4 | PVC | SCHED. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 168 | 173 | 4 | PVC | SCHED. 40 |
| Gravel Pack | 148 | 173 | 8.5 | BLENDED | .025 |
| Grout | 35 | 148 | 8.5 | Neat Cement Bentonite | 600 lbs |

RECORD OF TESTTest Date 11 / 04 / 98
Static Water Level 14 ft. below land surface
Water Level Measured Using MEASURED TAPE
Pumping Water Level 126 ft. below land surface
Well Was Pumped Using AIR LIFT
Well Yield 40 gpm
If Pump Tested: Discharge Rate _____ gpm
Duration of Test _____ hoursGrouting Method PRESSURE THROUGH TREMIE PIPE ✓
Drilling Method MUD ROTARY**PERMANENT PUMPING EQUIPMENT**Installed by D. UNBRECHT Reg. No. JD0523
Pump Type SUBMERSIBLE
Depth of Pump below land surface 100 ft.
Capacity 12 gpm Horsepower 3/4 HP

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLING ✓
Well Driller (Print) NOELMAN PRIMAST ✓
Driller's Signature [Signature]
Registration No. M1040 Date 12 / 23 / 98**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0-5 TOPSOIL
5-15 GREEN CLAY
15-20 GRAY CLAY
20-70 GRAY CLAY w/ GRAY SILT & SOME FINE GRAY SAND
70-130 GRAY CLAY w/ SOME MED & COARSE GREEN SAND w/ GRAY SILT
130-173 COARSE & MED GRAY SAND w/ SOME GREEN PEBBLES. ✓

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

1/1/99

1/1/99

1/1/99

WELL RECORD

Well Permit Number

29 - 38660

Atlas Sheet Coordinates

29: 13 : 862OWNER Redacted - Privacy ActAddress 145 NOTTINGHAM DRIVECity EATONTOWNState NJZip Code 07724WELL LOCATION ADDRESS 145 NOTTINGHAM DRIVECounty MONMOUTHMunicipality EATONTOWN BOROLot No. 26Owner's Well No. 1Block No. 93.6WELL USE IRRIGATIONDATE WELL STARTED 6/2/98DATE WELL COMPLETED 6/2/98**WELL CONSTRUCTION**Total Depth Drilled 80 ft.Finished Well Depth 80 ft.

Borehole Diameter:

Top 8.5 in.Bottom 8.5 in.

Well Casing Begins:

+1.5 ft. above grade or- ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|------------------------------|---------------------------|
| Single/Inner Casing | <u>+1.5</u> | <u>54</u> | <u>4</u> | <u>PVC</u> | <u>Sch. 40</u> |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used <u>015</u>) | <u>54</u> | <u>74</u> | <u>4</u> | <u>PVC</u> | <u>Sch. 40</u> |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | <u>74</u> | <u>80</u> | <u>4</u> | <u>PVC</u> | <u>Sch 40</u> |
| Gravel Pack | <u>50</u> | <u>80</u> | <u>8.5</u> | <u>Futen Gravel</u> | <u>#1</u> |
| Grout | <u>3</u> | <u>50</u> | <u>8.5</u> | <u>Neat Cement Bentonite</u> | <u>175</u> lbs |

RECORD OF TESTTest Date 6/2/98Static Water Level 22 ft. below land surfaceWater Level Measured Using M-Scope Snap-LinePumping Water Level 50 ft. below land surfaceWell Was Pumped Using APLWell Yield 150 + gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

Grouting Method Pressure TransferDrilling Method D.C. Rotary**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations:

0-1 Red loamy sand
1-16 Reddish Brown F-M Quartz
Sand Tr. clay/Silt Particly
Indurated 10-16'
16-22 Heavy Indurated Brown
Granitic F-M Quartz Sand
22-74 F-M Flakonic weathered
Gravel Quartz Sand (Vineyard)
74-80 Mostly Indurated Granitic
Tr. clay

PERMANENT PUMPING EQUIPMENTInstalled by MICHAEL SPALATO Reg. No. JD 2122Pump Type SUBMERSIBLEDepth of Pump below land surface 45 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company TIGER CONSTRUCTION CORP.Well Driller (Print) DENNIS B. SPALATODriller's Signature [Signature]Registration No. MD 0982 Date 6/15/98

COPIES:

White - DEP

Canary - Driller

Pink - Owner

Goldenrod - Health Dept.

7/30/98

DWR-138
5/95New Jersey Department of Environmental Protection
Bureau of Water Allocation**WELL RECORD**

Well Permit Number

29 - 39028

Atlas Sheet Coordinates

29 13 : 587

OWNER Redacted - Privacy ActAddress 521 TINTON AVE
TINTON FALLSCity _____ State NJ Zip Code _____WELL LOCATION ADDRESS 521 TINTON AVE

Owner's Well No. _____

County MONMOUTH Municipality TINTON FALLS BO Lot No. 7 Block No. 54WELL USE DOMESTIC REPLACEMENTDATE WELL STARTED 8/6/98DATE WELL COMPLETED 8/6/98**WELL CONSTRUCTION**Total Depth Drilled 186 ft.Finished Well Depth 186 ft.Borehole Diameter:
Top 8.5 in.
Bottom 8.5 in.Well Casing Begins:
1.0 ft. above grade or
_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|------------------------------|---------------------------|
| Single/Inner Casing | <u>7.0</u> | <u>166</u> | <u>4</u> | <u>PVC</u> | <u>SCHED.40</u> |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | <u>166</u> | <u>181</u> | <u>4</u> | <u>PVC</u> | <u>SCHED.40</u> |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | <u>181</u> | <u>186</u> | <u>4</u> | <u>PVC</u> | <u>SCHED.40</u> |
| Gravel Pack | <u>156</u> | <u>186</u> | <u>8.5</u> | <u>BLENDED</u> | <u>.025</u> |
| Grout | <u>3.5</u> | <u>156</u> | <u>8.5</u> | <u>Neat Cement Bentonite</u> | <u>650</u> lbs |

RECORD OF TESTTest Date 8/6/98Static Water Level 170 ft. below land surfaceWater Level Measured Using MEASURED TAPEPumping Water Level 144 ft. below land surfaceWell Was Pumped Using AIR LIFTWell Yield 35 gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

PERMANENT PUMPING EQUIPMENTInstalled by T. CASTELLANO Reg. No. 0016656Pump Type SUBMERSIBLEDepth of Pump below land surface 180 ft.Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) BENJAMIN PRIMASTDriller's Signature [Signature]Registration No. m 13162 Date 9/15/98Grouting Method PRESSURE THROUGH TREMIE PIPEDrilling Method MUO ROTARY**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0-5 TAN-GREEN SILTY CLAY
5-15 TAN GREEN SILTY CLAY W/ BLACK SAND
15-35 HARD GREEN CLAY
35-40 HARD GREEN CLAY W/ BLACK SAND
40-75 CEMENTED GREEN SAND
75-150 SILTY CLAY CLAY
150-186 FINE CLAY SAND

COPIES:

White - DEP

Canary - Driller

Pink - Owner

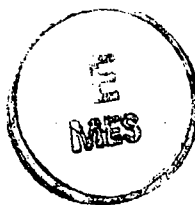
Goldenrod - Health Dept.

9/24/98

9/24/98

9/24/98

WELREC 187 0373



9/21/98

WELL RECORD

Well Permit Number

29 - 39376

Atlas Sheet Coordinates

29 : 13 : 577

OWNER TINTON FALLS BD OF EDUCAddress 658 TINTON AVECity TINTON FALLSState NJ

Zip Code

WELL LOCATION ADDRESS 674 TINTON AVE

Owner's Well No.

County MONMOUTHMunicipality TINTON FALLS BOLot No. 1Block No. 73WELL USE IRRIGATIONDATE WELL STARTED 10 / 1 / 98DATE WELL COMPLETED 10 / 1 / 98**WELL CONSTRUCTION**Total Depth Drilled 329 ft.Finished Well Depth 329 ft.

Borehole Diameter:

Top 8.5 in.
Bottom 8.5 in.

Well Casing Begins:

1.0 ft. above grade or
1.0 ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 1.0 | 304 | 4 | PVC | SCHED.40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 304 | 324 | 4 | PVC | SCHED.40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 324 | 329 | 4 | PVC | SCHED.40 |
| Gravel Pack | 294 | 329 | 8.5 | BLENDED | .025 |
| Grout | 3.5 | 294 | 8.5 | Neat Cement Bentonite | 1250 lbs |

RECORD OF TESTTest Date 10 / 1 / 98Static Water Level 33 ft. below land surfaceWater Level Measured Using MEASURED TAPEPumping Water Level 243 ft. below land surfaceWell Was Pumped Using AIR LIFTWell Yield 150 gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

Grouting Method PRESSURE THROUGH TREMIE PIPE
Drilling Method MUD ROTARY**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0-10 CLAYEY OCHRE MED SAND
10-40 GREEN CLAY
40-60 GREEN CLAY & COARSE GREEN SAND
60-90 COARSE MED GREEN SAND w/SOME GREEN SILTY CLAY
90-100 COARSE MED. GREEN SAND w/SOME GREEN SILTY CLAY w/SOME GRAY CLAY
100-150 GRAY CLAY
150-195 FINE & MED GRAY SILTY SAND
195-225 FINE & MED GRAY SILTY SAND w/MORE GRAY SILTY CLAY
225-240 FINE & MED GRAY SILTY SAND w/FINE GRAY SAND
240-260 GRAY CLAY
260-285 GRAY CLAY w/SOME FINE GRAY SAND
285-300 GRAY CLAY w/SOME LENSES OF FINE GRAY SAND & TRACE LIMONITE
300-329 FINE GRAY SAND

PERMANENT PUMPING EQUIPMENTInstalled by D. ULBRICHT Reg. No. JD 0523Pump Type SUBMERSIBLEDepth of Pump below land surface 169 ft.Capacity 65 gpm Horsepower 7-1/2

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

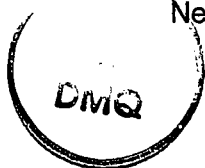
Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) NORMAN PRIMOSTDriller's Signature Norman PrimostRegistration No. M1040 Date 10 / 28 / 98

COPIES:

White DEP
10/30/98Canary Driller
10/30/98

Pink - Owner

Goldenrod - Health Dept.
10/30/98



Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 39917

Atlas Sheet Coordinates 29 13 843

OWNER IDENTIFICATION - Owner MONMOUTH CITY DEPT BLDG &
Address 250 CENTER ST
City FREEHOLD State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW7
County MONMOUTH Municipality TINTON FALLS BO Lot No. 21.01 Block No. 97
Address PINEBROOK RD

DATE WELL STARTED 2/12/99
DATE WELL COMPLETED 2/12/99
TYPE OF WELL (as per Well Permit Categories) MONITORING
Regulatory Program Requiring Well UST Case I.D.# 92-11-23-1317

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) PMK Group Consulting Engineers Tele. #

WELL CONSTRUCTION

Total depth drilled 11' ft.
Well finished to 11' ft.

Borehole diameter:
Top 6" in.
Bottom 6" in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 3' ft.

Water level was measured using Tape

Well was developed for 1 Hour hours
at 2 gpm

Method of development Pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity gpm

Pump type:

Drilling Fluid Type of Rig B-57

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company SUMMIT WELL DRILLING CO INC

Well Driller (Print) John Vogt

Driller's Signature John Vogt

Registration No. 1544 Date 2/16/99

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0' | 1' | 2" | PVC | Sch. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 1' | 11' | 2" | PVC | Sch. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 6" | 11' | | Morie #2 | 94 lbs. |
| Grout | 0' | 6" | | Neat Cement Bentonite | 5 lbs. |

Grouting Method Gravity
Drilling Method Auger

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

See Attached



ENVIRONMENTAL SPECIALISTS

Central Jersey Industrial Park
Chimney Rock Road, Bldg. 9W
Bound Brook, NJ 08805
Telephone: (908) 722-4266
Toll Free: (800) 242-6648
FAX: (732) 356-1009

WELL LOG

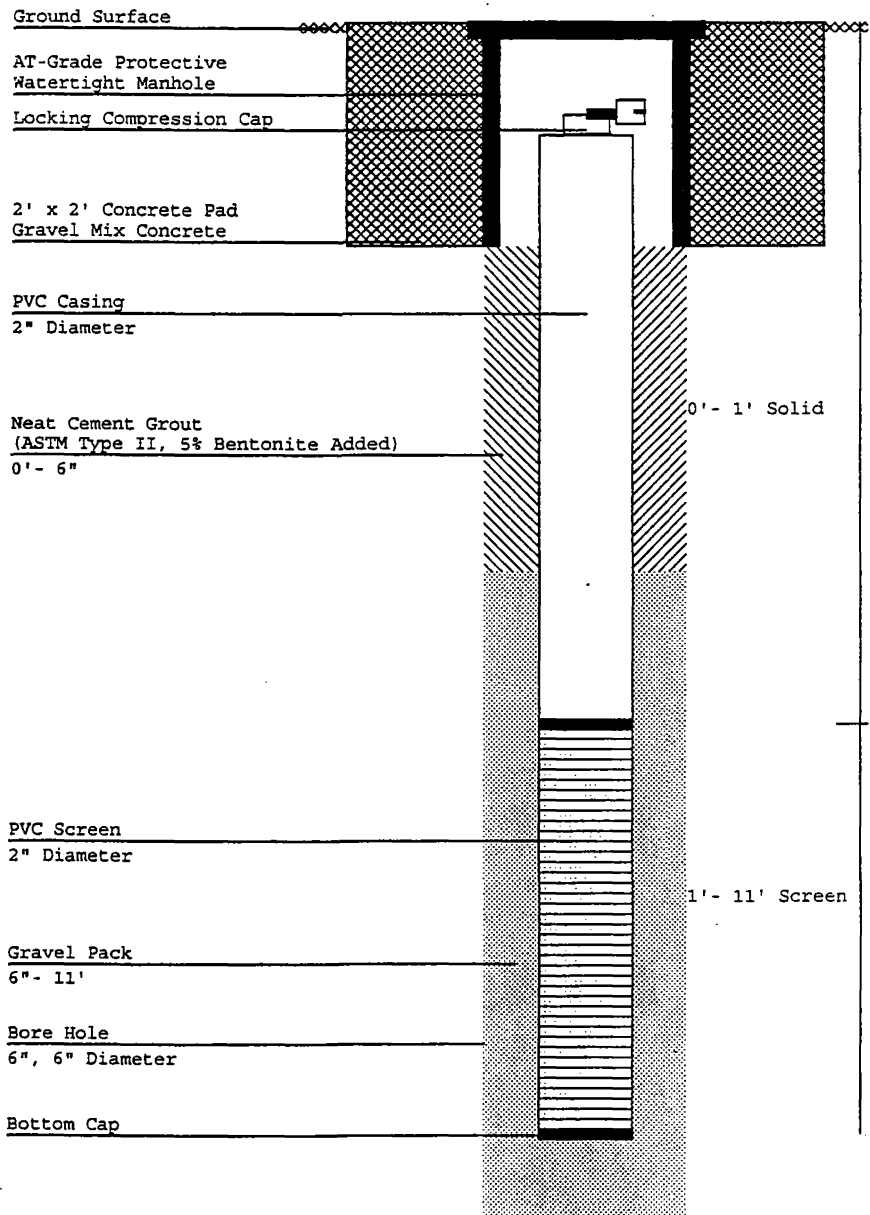
WELL: MW7 DATE DRILLED: 02/12/1999 COORD #1: 29.13.843 PERMIT #1: 29-39917
COORD #2: PERMIT #2: COUNTY: Monmouth
SITE: Monmouth Cty Hwy District #3/6, Pinebrook Road, , Tinton Falls, NJ
OWNER: Monmouth County Dept. of , 250 Center Street, , Freehold, NJ 07728
XSTREET: USE: Monitoring

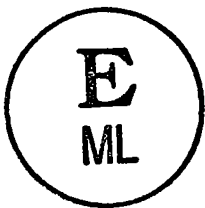
INNER CASING: PVC OUTER CASING: SCREEN TYPE 1: PVC DRILLING METHOD: Auger
DIAMETER: 2" DIAMETER: SCREEN TYPE 2: SAMPLING METHOD:
LENGTH: 1' LENGTH: DIAMETER: 2" HOLE DIA: 6", 6"
LENGTH 1: 10' TOTAL DEPTH: 11'
LENGTH 2:
SET WELL: 11' GAL PER MIN: 2 LENGTH 2:
GRAVEL PK SZ: Morie #2 STAT H2O LVL: 3' SLOT SIZE: .020
DRILLER: John Vogt DEVELOPMENT METHOD: Pump CASING SEAL: Portland
SURFACE COMPLETION: M DEVELOPMENT TIME: 1 Hour OPEN HOLE:

DEPTH BELOW SURFACE FROM - TO BLOWS PER 6" ON SAMPLER

REMARKS / SOILS IDENTIFICATION

0'- 11' Brown sand & gravel.



**WELL RECORD**Well Permit Number
29 40203Atlas Sheet Coordinates
29 13 813OWNER UNITED STATES GOV.
Address FORT MONMOUTH GOV. RESERVATION

City TINTON FALLS State NJ Zip Code

WELL LOCATION ADDRESS CHARLES WOOD AREA

Owner's Well No. #1-62

County MONMOUTH Municipality TINTON FALLS BO Lot No. N/A Block No. N/A

WELL USE GEOTHERMAL/HEAT PUMP

DATE WELL STARTED 4 / 2 / 99

DATE WELL COMPLETED 12 / 01 / 99

WELL CONSTRUCTION

Total Depth Drilled 304 ft.

Finished Well Depth 304 ft.

Borehole Diameter:

Top 6 in.

Bottom 6 in.

Well Casing Begins:

ft. above grade or

ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 304 | 1" | HDPE | SDR11 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | | | | | |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | | | | Geothermal sand | |
| Grout Bentonite Thermal | 0 | 304 | 6" | Neat Cement Bentonite | 2600 lbs
-650 lbs |

RECORD OF TEST

Test Date N/A / /

Static Water Level ft. below land surface

Water Level Measured Using

Pumping Water Level ft. below land surface

Well Was Pumped Using

Well Yield gpm

If Pump Tested: Discharge Rate gpm

Duration of Test hours

Grouting Method tremie grout

Drilling Method mud rotary

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0 - 304 Gray silty fine to medium sand.

PERMANENT PUMPING EQUIPMENT

Installed by N/A Reg. No.

Pump Type

Depth of Pump below land surface ft.

Capacity gpm Horsepower

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company HARDIN-HUBER, INC.

Well Driller (Print) Jeff Corron

Driller's Signature

Registration No. 1428-1176 Date 1 / 13 / 99



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 40281

Atlas Sheet Coordinates 29 : 13 677

OWNER IDENTIFICATION - Owner Redacted - Privacy Act

Address 84 HIGH ST.

City EATONTOWN State N.J. Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW-1

County MONMOUTH Municipality EATONTOWN BORO Lot No. 21 Block No. 56

Address 84 HIGH ST.

DATE WELL STARTED 4/21/99

DATE WELL COMPLETED 4/21/99

TYPE OF WELL (as per Well Permit Categories) MONITORING

Regulatory Program Requiring Well OWNER INVESTIGATION

Case I.D.#

CONSULTING FIRM/FIELD SUPERVISOR (if applicable)

Tele. #

WELL CONSTRUCTION

Total depth drilled 30 ft.

Well finished to 30 ft.

Borehole diameter:

Top 12 in.

Bottom 12 in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface NA ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 18 ft.

Water level was measured using TAPE

Well was developed for .5 hours
at 5 gpm

Method of development MOUND

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity NA gpm

Pump type: NA

Drilling Fluid NONE Type of Rig A300

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company GARY PARENT/SHORE DRLG. INC.

Well Driller (Print) GARY PARENT

Driller's Signature Gary Parent

Registration No. MD 1540 Date 5/2/99

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 0 | 15 | 4 | PVC | SCH. 40 |
| Middle Casing (for triple cased wells only) | NA | | | | |
| Outer Casing (largest diameter) | NA | | | | |
| Open Hole or Screen (No. Used) | 15 | 30 | 4 | PVC | 02050T |
| Blank Casings (No. Used) | NA | | | | |
| Tail Piece | NA | | | | |
| Gravel Pack | 14 | 30 | 12 | #2 SAND | |
| Grout | 0 | 14 | 12 | Neat Cement Bentonite | 105 lbs. |

Grouting Method TREMBLE

Drilling Method HSA

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-6" GRASS/TOPSOIL

6"-10' BRN MD SD.

10'-25' LT BRN MD SD

25'-30' DRK GREY/BLK CLAYEE SILT

WELL RECORDWell Permit Number
29 40296Atlas Sheet Coordinates
29 13 587

Redacted - Privacy Act

OWNER _____
Address 525 TINTON AVE.

City TINTON FALLS State NJ Zip Code _____

WELL LOCATION ADDRESS 525 TINTON AVE. Owner's Well No. _____

County MONMOUTH Municipality TINTON FALLS BO Lot No. 7.01 Block No. 54

WELL USE DOMESTIC DATE WELL STARTED 5/05/99

DATE WELL COMPLETED 5/05/99

WELL CONSTRUCTION

Total Depth Drilled 191 ft.

Finished Well Depth 191 ft.

Borehole Diameter:
Top 8.5 in.
Bottom 8.5 in.Well Casing Begins:
1.0 ft. above grade or
ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | 41.0 | 166 | 4 | PVC | SCHED. 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 166 | 186 | 4 | PVC | SCHED. 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 186 | 191 | 4 | PVC | SCHED. 40 |
| Gravel Pack | 156 | 191 | 8.5 | BLENDED | .025 |
| Grout | 3.5 | 156 | 8.5 | Neat Cement Bentonite | 650 lbs |

RECORD OF TEST

Test Date 5/05/99
Static Water Level 21 ft. below land surface
Water Level Measured Using MEASURED TAPE
Pumping Water Level 152 ft. below land surface
Well Was Pumped Using AIR LIFT
Well Yield 50 gpm
If Pump Tested: Discharge Rate _____ gpm
Duration of Test _____ hoursGrouting Method PRESSURE THROUGH TREMBLE PIPE
Drilling Method MUD ROTARY

PERMANENT PUMPING EQUIPMENT

Installed by S. FOSTER Reg. No. M1115
Pump Type SUBMERSIBLE
Depth of Pump below land surface 120 ft.
Capacity 20 gpm Horsepower 1

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLING ✓

Well Driller (Print) BENJAMIN PERMIST A-1

Driller's Signature

Registration No. M13762 Date 6/09/99

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-70 GREEN / CLAY / BLACK SAND
70-150 GRAY CLAY
150-170 FINE & MED. BLACK SAND
170-191 FINE GRAY SAND w/ GREEN PEBBLES ✓

**WELL RECORD**Well Permit Number
29 — 40473Atlas Sheet Coordinates
29 : 13 : 813OWNER UNITED STATES GOV
Address FORT MONMOUTH GOV RESERVATIONCity TINTON FALLS State NJ Zip Code _____WELL LOCATION ADDRESS CHARLES WOOD AREA MAIN ST Owner's Well No. #1-24
County MONMOUTH Municipality TINTON FALLS BO Lot No. N/A Block No. N/AWELL USE CLOSED LOOPDATE WELL STARTED 5 / 10 / 99
DATE WELL COMPLETED 12 / 15 / 99**WELL CONSTRUCTION**Total Depth Drilled 304 ft.Finished Well Depth 304 ft.Borehole Diameter:
Top 6 in.
Bottom 6 in.Well Casing Begins:
_____ ft. above grade or
_____ ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|----------------------------------|----------------------------------|
| Single/Inner Casing | 0 | 304 | 1" | HDPE | SDR11 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | | | | | |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | | | | Geothermal sand | |
| Grout Bentonite Thermal | 0 | 304 | 6" | Neat Cement Bentonite | 2600 lbs
— 650 lbs |

RECORD OF TESTTest Date N/A / /

Static Water Level _____ ft. below land surface

Water Level Measured Using _____

Pumping Water Level _____ ft. below land surface

Well Was Pumped Using _____

Well Yield _____ gpm

If Pump Tested: Discharge Rate _____ gpm
Duration of Test _____ hoursGrouting Method tremie groutDrilling Method mud rotary**PERMANENT PUMPING EQUIPMENT**Installed by N/A Reg. No. _____

Pump Type _____

Depth of Pump below land surface _____ ft.

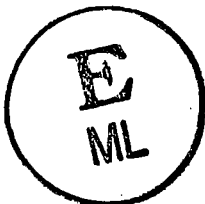
Capacity _____ gpm Horsepower _____

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company HARDIN-HUBER, INC.Well Driller (Print) Jeff CorronDriller's Signature Jeff CorronRegistration No. 1428-1176 Date 1 / 13 / 00**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0 - 304 Gray silty fine to medium sand

New Jersey Department of Environmental Protection
Bureau of Water Allocation**WELL RECORD**Well Permit Number
29 40917Atlas Sheet Coordinates
29 13 868OWNER **Redacted - Privacy Act**Address **151 NOTTINGHAM DRIVE**City **EATONTOWN** State **NJ** Zip Code **07724**WELL LOCATION ADDRESS **151 NOTTINGHAM DRIVE**Owner's Well No. **1**County **MONMOUTH** Municipality **EATONTOWN BORO** Lot No. **27** Block No. **93-6**WELL USE **IRRIGATION**DATE WELL STARTED **10/6/99**
DATE WELL COMPLETED **10/6/99****WELL CONSTRUCTION**Total Depth Drilled **80** ft.Finished Well Depth **80** ft.Borehole Diameter:
Top **8.5** in.
Bottom **8.5** in.Well Casing Begins:
1 1/2 ft. above grade or
— ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (Inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|------------------------------|--------------------------------|
| Single/Inner Casing | 1 1/2 | 57 | 4 | PVC | Sch 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used 015) | 57 | 77 | 4 | PVC | Sch 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | 77 | 80 | 4 | PVC | Sch 40 |
| Gravel Pack | 53 | 80 | 8.5 | FILTER GRAVEL | #1 |
| Grout | 4 | 53 | 8.5 | Neat Cement Bentonite | — lbs
150 lbs |

RECORD OF TESTTest Date **10/6/99**Static Water Level **26** ft. below land surfaceWater Level Measured Using **11-3000 INCHES**Pumping Water Level **55** ft. below land surfaceWell Was Pumped Using **AIR**Well Yield **150** gpm

If Pump Tested: Discharge Rate _____ gpm

Duration of Test _____ hours

Grouting Method **PRESSURE TRENCH**Drilling Method **DC Rotary****PERMANENT PUMPING EQUIPMENT**Installed by **DAVID VIN GRUNT** Reg. No. **JD1448**Pump Type **SUBMERSIBLE**Depth of Pump below land surface **50** ft.Capacity **20** gpm Horsepower **1**

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company **TIGER CONSTRUCTION CORP**Well Driller (Print) **DENNIS B. GRUNT**Driller's Signature **[Signature]**Registration No. **MD0987** Date **10/7/99****GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0-2 Brown clay sand
2-19 Reddish-brown F-M Quartz sand Tr. clay / Sil. & Indur.
TD 15-19'
19-25 Heavy Indurated brown F-M weathered & laminated quartz sand
25-77 F-M laminitic weathered green quartz sand (unconformity)
77-80 Silty fine sand w/ layers lacustrine tr. clay

WELL RECORDWell Permit Number
29 42087Atlas Sheet Coordinates
29 13 857

Redacted - Privacy Act

OWNER

Address 2516 AUTUMN DRIVE
City MANASQUAN State NJ Zip CodeWELL LOCATION ADDRESS 2516 AUTUMN DRIVE Owner's Well No.
County MONMOUTH Municipality WALL TWP. Lot No. 37 Block No. 876WELL USE IRRIGATIONDATE WELL STARTED 02 / 17 / 00
DATE WELL COMPLETED 02 / 17 / 00 ✓

WELL CONSTRUCTION

Total Depth Drilled 125 ft.Finished Well Depth 125 ft.Borehole Diameter:
Top 8.0 in.
Bottom 8.0 in.Well Casing Begins:
1.0 ft. above grade or
ft. below grade

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------|
| Single/Inner Casing | <u>1.0</u> | <u>110</u> | <u>4</u> | <u>PVC</u> | <u>SCHED. 40</u> |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | <u>110</u> | <u>120</u> | <u>4</u> | <u>PVC</u> | <u>SCHED. 40</u> |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | <u>120</u> | <u>125</u> | <u>4</u> | <u>PVC</u> | <u>SCHED. 40</u> |
| Gravel Pack | <u>100</u> | <u>125</u> | <u>8.0</u> | <u>BLENDED</u> | <u>.025</u> |
| Grout | <u>3.5</u> | <u>100</u> | <u>8.0</u> | Neat Cement Bentonite | <u>400</u> lbs |

RECORD OF TEST

Test Date 02 / 17 / 00 ✓
Static Water Level 41 ft. below land surface
Water Level Measured Using MEASURED TAPE
Pumping Water Level 88 ft. below land surface
Well Was Pumped Using AIR LIFT
Well Yield 100 gpm
If Pump Tested: Discharge Rate _____ gpm
Duration of Test _____ hoursGrouting Method PRESSURE THROUGH TEMPLE PIPE ✓
Drilling Method MUD ROTARY ✓

PERMANENT PUMPING EQUIPMENT

Installed by W. HOLMSTROM Reg. No. 0019979
Pump Type SUBMERSIBLE
Depth of Pump below land surface 65 ft.
Capacity 20 gpm Horsepower 1

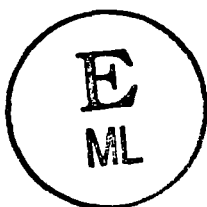
I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company PICKWICK WELL DRILLINGWell Driller (Print) JOHN MURTHA ✓Driller's Signature John MurthaRegistration No. JD 21245 Date 04 / 10 / 00

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-10 TAN SAND W/ OCURE CLAY
10-60 COARSE TAN SAND
60-65 OCURE CLAY
65-80 TAN SAND
80-100 BROWN CLAY
100-105 FINE GRAY SAND
105-125 FINE & MED. GRAY SAND W/
LEONITE ✓



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 -42585

Atlas Sheet Coordinates 29 : 13 822

OWNER IDENTIFICATION - Owner US ARMY
Address 173 RIVERSIDE AVE
City FT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. M46
County MONMOUTH Municipality TINTON FALLS BO Lot No. N/A Block No. N/A
Address 2567 LABORATORY RD

TYPE OF WELL (as per Well Permit Categories) MONITORING DATE WELL STARTED 5/12/00
Regulatory Program Requiring Well _____ DATE WELL COMPLETED 5/12/00
Case I.D.# _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) M. Lavery Tele. # _____

WELL CONSTRUCTION

Total depth drilled 13 ft.
Well finished to 12 ft.

Borehole diameter:
Top 8 in.
Bottom 8 in.

Well was finished: ☒ above grade
☐ flush mounted

If finished above grade, casing height (stick up) above land surface 2 ft.

Was steel protective casing installed?
☒ Yes ☐ No

Static water level after drilling 4 ft.

Water level was measured using MEAP

Well was developed for 1 hours
at 1 gpm

Method of development Sub pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity N/A gpm

Pump type: N/A

Drilling Fluid None Type of Rig B-59

Health and Safety Plan submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in
accordance with all well permit requirements and applicable
State rules and regulations.

Drilling Company INLAND POLLUTION SERVICES INC

Well Driller (Print) Michael A. Kamosinski

Driller's Signature [Signature]

Registration No. 0742 Date 5/12/00

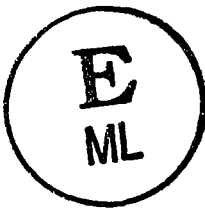
| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|------------------------------|---------------------------|
| Single/Inner Casing | <u>13</u> | <u>3</u> | <u>4</u> | <u>PVC</u> | <u>500 lbs</u> |
| Middle Casing (for triple cased wells only) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Outer Casing (largest diameter) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Open Hole or Screen (No. Used <u>1</u>) | <u>3</u> | <u>13</u> | <u>4</u> | <u>PVC</u> | <u>500 lbs</u> |
| Blank Casings (No. Used <u>—</u>) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Tail Piece | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>1</u> | <u>13</u> | <u>—</u> | <u>marie #4</u> | <u>350 lbs</u> |
| Grout | <u>0</u> | <u>1</u> | <u>—</u> | <u>Neat Cement Bentonite</u> | <u>50 lbs.</u> |

Grouting Method Gravity
Drilling Method HSA

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

0-13 Med-Fine sand

Bureau of Water Allocation
MONITORING WELL RECORDWell Permit No. 29 - 42586Atlas Sheet Coordinates 29 : 13 822OWNER IDENTIFICATION - Owner US ARMYAddress 173 RIVERSIDE AVECity FT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. M47County MONMOUTH Municipality TINTON FALLS BO Lot No. N/A Block No. N/AAddress 2567 LABORATORY RDDATE WELL STARTED 5/12/00DATE WELL COMPLETED 5/12/00TYPE OF WELL (as per Well Permit Categories) MONITORING

Regulatory Program Requiring Well _____ Case I.D.# _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) M. Lewis Tele. # _____**WELL CONSTRUCTION**Total depth drilled 13 ft.
Well finished to 13 ft.

Borehole diameter:

Top 8 in.
Bottom 8 in.Well was finished: ☒ above grade
☐ flush mountedIf finished above grade, casing height (stick up) above land surface 3 ft.

Was steel protective casing installed?

☒ Yes ☐ NoStatic water level after drilling 4 ft.Water level was measured using m-superWell was developed for 1 hours
at 1 gpmMethod of development sub pumpWas permanent pumping equipment installed? ☐ Yes ☒ NoPump capacity N/A gpmPump type: N/ADrilling Fluid None Type of Rig B-59Health and Safety Plan submitted? ☐ Yes ☒ NoLevel of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

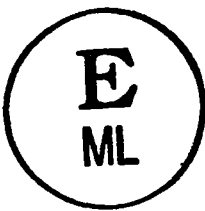
Drilling Company INLAND POLLUTION SERVICES INCWell Driller (Print) Michael A KinosinskiDriller's Signature [Signature]Registration No. 02420 Date 5/12/00

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|------------------------------|---------------------------|
| Single/Inner Casing | <u>13</u> | <u>3</u> | <u>4</u> | <u>PVC</u> | <u>5-640</u> |
| Middle Casing (for triple cased wells only) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Outer Casing (largest diameter) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Open Hole or Screen (No. Used <u>1</u>) | <u>3</u> | <u>13</u> | <u>4</u> | <u>PVC</u> | <u>5-640</u> |
| Blank Casings (No. Used <u>1</u>) | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Tail Piece | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| Gravel Pack | <u>1</u> | <u>13</u> | <u>—</u> | <u>Merritt #4</u> | <u>350 lbs</u> |
| Grout | <u>0</u> | <u>1</u> | <u>—</u> | <u>Neat Cement Bentonite</u> | <u>50 lbs.</u> |

Grouting Method GroutDrilling Method HSA**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations.

0-13 Med Fine Sand



New Jersey Department of Environmental Protection
Bureau of Water Allocation
MONITORING WELL RECORD

Well Permit No. 29 - 44268

Atlas Sheet Coordinates 29 : 14 : 586

OWNER IDENTIFICATION - Owner NEW JERSEY NATURAL GAS
Address 1415 WYCKOFF RD
City WALL TWP. State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address. Owner's Well No. MW35
County MONMOUTH Municipality LONG BRANCH CIT Lot No. 6.01 Block No. 309
Address OFF LONG BRANCH AVE

DATE WELL STARTED 1 / 29 / 01
TYPE OF WELL (as per Well Permit Categories) MONITORING DATE WELL COMPLETED 1 / 29 / 01
Regulatory Program Requiring Well _____ Case I.D.# _____

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) ARCADIS Geraghty & Miller, Inc. Tele. # _____

WELL CONSTRUCTION

Total depth drilled 15' ft.
Well finished to 15' ft.

Borehole diameter:
Top 10" in.
Bottom 10" in.

Well was finished: ☐ above grade
☒ flush mounted

If finished above grade, casing height (stick up) above land surface _____ ft.

Was steel protective casing installed?
☐ Yes ☒ No

Static water level after drilling 6' ft.

Water level was measured using Tape

Well was developed for 1/2 hours
at 1/2 gpm

Method of development pump

Was permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Fluid _____ Type of Rig CME

Health and Safety Plan submitted? ☒ Yes ☐ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company SUMMIT WELL DRILLING CO INC

Well Driller (Print) Jim Burton

Driller's Signature Jim Burton

Registration No. J13752 Date 2 / 22 / 01

| Note: Measure all depths from land surface | Depth to Top (ft.) | Depth to Bottom (ft.) | Diameter (inches) | Material | Wgt./Rating (lbs/sch no.) |
|---|--------------------|-----------------------|-------------------|-----------------------|---------------------------------|
| Single/Inner Casing | 0' | 5' | 2" | PVC | sch 40 |
| Middle Casing (for triple cased wells only) | | | | | |
| Outer Casing (largest diameter) | | | | | |
| Open Hole or Screen (No. Used) | 5' | 15' | 2" | PVC | .010 sch 40 |
| Blank Casings (No. Used) | | | | | |
| Tail Piece | | | | | |
| Gravel Pack | 3' | 15' | | Morie #2 | |
| Grout | 0' | 3' | | Neat Cement Bentonite | <u>94</u> lbs.
<u>5</u> lbs. |

Grouting Method gravity

Drilling Method Auger

GEOLOGIC LOG

Note each depth where water was encountered in consolidated formations.

See Attached



ENVIRONMENTAL SPECIALISTS

Chimney Rock Road, Bldg. 9W
Bound Brook, NJ 08805
Telephone: (908) 722-4266
Toll Free: (800) 242-6648
FAX: (732) 356-1009
http://www.summitdrilling.com
email: info@summitdrilling.com

WELL LOG

WELL: MW35 DATE DRILLED: 01/29/2001 COORD #1: 29.14.586 PERMIT #1: 29-44268
COORD #2: PERMIT #2: COUNTY:
SITE: Vacant Property, Off Long Branch Avenue, , Long Branch, NJ XSTREET:
OWNER: New Jersey Natural Gas, 1415 Wyckoff Road, , Wall, NJ 07719 USE: Monitor

INNER CASING: PVC OUTER CASING: SCREEN TYPE 1: PVC DRILLING METHOD: Auger
DIAMETER: 2" DIAMETER: SCREEN TYPE 2: SAMPLING METHOD:
LENGTH: 5' LENGTH: DIAMETER: 2" HOLE DIA: 10", 10"
LENGTH 1: 10' LENGTH 2: TOTAL DEPTH: 15'
SET WELL: 15' GAL PER MIN: 1/2 SLOT SIZE: .010
GRAVEL PK SZ: Morie #2 STAT H2O LVL: 6'
DRILLER: Jim Burton DEVELOPMENT METHOD: pump CASING SEAL: Portland
SURFACE COMPLETION: M DEVELOPMENT TIME: 1/2 OPEN HOLE:

| DEPTH BELOW
SURFACE
FROM - TO | BLOWS PER 6"
ON SAMPLER |
|-------------------------------------|----------------------------|
| 0' - 2' | 3-4-5-4 |
| 2' - 4' | 4-3-4-2 |
| 4' - 6' | 2-3-2-3 |
| 6' - 8' | 2-1-1-1 |
| 8' - 10' | WOH |
| 10' - 12' | WOH |
| 12' - 14' | 1-3-3-4 |

REMARKS / SOILS IDENTIFICATION

0' - 4' Fill material.
4' - 9' Light brown f/m sand some silt.
9' - 13' Light brown silty clay.
13' - 15' Black silty clay.

