OPERATION/CONSTRUCTION MANAGERS

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

February 5, 2004

Ms. Ellen Lorscheider, Permitting Hydrogeologist
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Site Hydrogeologic Study – Iredell County C&D Landfill, Phase 2&3
Iredell County Landfill, Statesville, North Carolina
MESCO Project No. G01026.5

Fac/Perm/Co ID # 49-03
Doc ID#
Date 9/19/13
DIN

Dear Ms. Lorscheider:

Municipal Engineering Services Company, P.A. (MESCO) has completed this letter in response to yours dated August 6, 2003 with regard to the Site Hydrogeologic Study conducted for the proposed Phase 2&3 portion of the Iredell County Construction and Demolition (C&D) Landfill Facility located in Statesville, North Carolina. This letter is intended to address the questions and comments that were included in your aforementioned letter. The initial study was completed and submitted to the Section dated July 5, 2002. In this letter, the term "original report" refers to the report submitted on July 5, 2002. Some of our responses also reflect discussions taken place during our meeting on September 24, 2003.

Site Study

Section Comment 1: The entire area, which is presented for site suitability, has not been characterized. There are borings on the 17 acres of the approximately 55 acres which is designated for the actual C&D footprint, but the property to the [*west*] (proposed borrow) has not been characterized. The entire site should be characterized as to the hydrogeology or the limits of the site should be changed to exclude the borrow area.

This study has been conducted with the aim of getting only the referenced 17-acre area permitted for landfill use, out of the 55-acre property recently acquired for landfill expansion. The remaining area will be used primarily as borrow source, but will *not* be used to accept waste. Section 1.2 of the text has been revised to further emphasize this point in order to eliminate any ambiguity in wording.

In addition, all maps in the original report that outlined the recently-acquired property—inclusive of both the footprint of the proposed waste area and the planned borrow area—have been revised to show the proposed landfill footprint in emphasis to avoid further mis-interpretation of the geometry of the proposed area.

Section Comment 7: The Water Quality Monitoring Plan needs to be certified by a Licensed Geologist according to Rule .1623(b)(3)(C).

The Water Quality Monitoring Plan, when submitted in a separate correspondence at a later date, will be certified by a Licensed Geologist as required.

Please find included in this submittal the following items which will replace the items included in the original submittal.

- ❑ Main text
- ❑ Table 1 - Groundwater elevation summary
- ❑ Table 4 - Proposed monitoring well specifics
- ❑ Table 5 - Seasonal high estimation
- ❑ Plates 1 through 6 and A
- ❑ Appendix A (whole)
- ❑ Table B-3 - Flow rate calculations
- ❑ Appendix D (whole)

Please note that the Ground and Surface Water Sampling and Analysis Plan, which constitutes the Appendix E part of this report, will be submitted to the Section at a later date as mentioned briefly in our response to Comment 7.

Feel free to contact us at (919) 772-5393 if you have any questions or require more information.

Sincerely,
MUNICIPAL ENGINEERING SERVICES CO., P.A.

Kohei Yoshida
Hydrogeologist

Enclosures

cc: Mr. Ron Weatherman, Solid Waste Director, Iredell County
Wayne Sullivan, Project Manager, MESCO
Edward S. Custer, Jr., P.G., Ph.D.

Section Comment 2: The seasonal high estimates and the long-term seasonal high estimates should take into consideration the monitoring wells on the adjacent MSW and C&DLF areas. The groundwater levels should be shown for all existing monitoring wells and any available data at piezometers in table form.

This revised report has incorporated in Table 1 all available historical water levels measured in piezometers and monitoring wells across the entire landfill facility. This includes all existing monitoring wells for Phases 1 through 3 of the adjacent municipal solid waste landfill and the existing phase of the C&D landfill, and several other piezometers that are still present at the time of the study. Water level data from these wells and piezometers were then compared statistically with the USGS observation well (NC-142) for correlation.

Although not all were found to have a statistically-significant correlation, 28 out of 45 tested wells ($> 62\%$) yielded a statistically-significant correlation with the USGS well with a P value of less than 0.05. This provides quantitative proof that long-term seasonal highs can be reliably predicted by using the referenced USGS observation well located in Mocksville.

In fact, long-term seasonal highs should be determined by using the USGS well (or any available well in the region of interest that provides an extensive coverage of historical water table data) than using the wells and piezometers available in the vicinity of the proposed landfill for the following reasons:

1. Water levels in existing on-site monitoring wells/piezometers are usually measured no more frequently than semi-annually. As such, they are not guaranteed to have recorded a level when the groundwater was historically highest.

2. Geographical proximity of a reference well to on-site piezometers—at the locations of which seasonal high water table levels are being estimated—does not necessarily guarantee a good correlation between them in terms of seasonal fluctuation of water table level. Although this assumption is normally found to be true, there are cases where behaviors of water table fluctuation differ significantly between locations that are within very close proximity. Therefore, a correlation between a candidate historical-reference well and the on-site piezometers should still be established prior to proceeding with seasonal high calculation as a verification of this assumption. The same logic also applies when determining whether or not a reference well in consideration is close enough to the study site to represent the seasonal water table fluctuation in the subject region through correlation analysis.

Based on these arguments, a well located at a remote distance from the study site that provides sufficient historical coverage should be used preferentially as the historical reference than one that is closer to the site that only provides semi-annual data, provided that such remote well yields a statistically-significant correlation with the on-site piezometers in terms of seasonal water level fluctuation. It is therefore our professional opinion that, in order to achieve more accurate and consistent result, the aforementioned USGS observation well should be used for estimating long-term seasonal high water table levels at the C&D landfill site.

The revised Table 1 includes observed highs (H_{OH}) and lows (H_{OL}), which are the highest and lowest readings over the course of the measurement period, long-term seasonal highs (H_{SH}) calculated in the manner described in Section 4.5, and the differences between the long-term seasonal highs and the observed highs ($H_{SH} - H_{OH}$). As theoretically anticipated, the calculated seasonal highs are higher than the actual observed highs, except that MW-2 has its long-term

seasonal high lower than its observed high counterpart by 0.47 feet. This is most likely caused by an erroneous water level measurement taken on March 7, 1995, which did not reflect the actual water table level (see Section 4.5.6 for related discussion).

Section Comment 3: A map of the existing monitoring plan for the entire existing facility should be included in this report.

This revision includes a map showing the entire facility with all relevant ground and surface water monitoring points. Plate A has been udpated to this effect.

Section Comment 4: The Monitoring Plan does not appear to be sufficient. MW-22 is located on the property line. The compliance boundary is 250 [*feet*] from waste, with the review boundary being approximately half of that or 125 feet from waste. MW-24 is located down-gradient below the sediment pond. The surface-water in this pond may be at approximately the same potentiometric level as the groundwater. I do not feel that this would be a good location for this well as the groundwater coming from under the landfill may be discharging into the pond or may be diluted by the pond. The monitoring plan map needs to include downstream surface water monitoring points for the C&DLF.

The monitoring plan has been revised to reflect our consensus reached during the September meeting. Please see Section 5 for details of the revised monitoring plan.

Application for Permit to Construct Phase 3

Section Comment 5: The potentiometric surface is not complete in the area of the creek at the south east portion of Phase 3. Additional piezometers will be needed to show if the groundwater is discharging to this creek.

We have gathered additional information from nested piezometers installed near the mentioned creek in response to this comment in order to study the discharging behavior of the groundwater into this creek. As we discussed during our September meeting, we could not install an additional piezometer across the creek due to highly-densed trees in the subject area making it inaccessible without significantly disturbing the environment.

Section 4.1 characterizes the discharging behavior of the groundwater near the creek based on the information from the aforementioned nested piezometers as well as two additional drive point piezometers that were put in at shallow depths in the area across the creek from the proposed landfill area.

Section Comment 6: The monitoring wells which are shown on the monitoring plan may not be sufficient as stated above in the Site Study comments.

Please see our response to Comment 4.

Site Hydrogeologic Study

Prepared for

Iredell County C&D Landfill, Phases 2&3
Statesville, North Carolina

Fac/Perm/Co ID# 49-03
Date 8/7/13
Doc ID#
DIN

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 4/6/2004 BY Ehorstkeider
Permit No 49-03
C&D Expansion

MESCO Project Number: G01026.5

Completed: January 28, 2004

Municipal Services Engineering Company, P.A.
Garner, NC Boone, NC
Municipal Engineering Services Company, P.A.
Garner and Boone, North Carolina

Typesetting by LaTeX 2ε

Site Hydrogeologic Study

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1 INTRODUCTION

1.1 Purpose and Scope of Study

This study was undertaken to define, with borings, piezometers and laboratory testings, the soil and rock types, conditions, and the uppermost aquifer regime at the proposed Phases 2 and 3 of the Iredell County Construction and Demolition (C&D) Landfill located in Statesville, North Carolina. Data, conclusions, and recommendations for hydrologic and geologic conditions are provided to fulfill the application requirements for Sanitary Landfills in accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0504 (c).

1.2 Site Description

The Iredell County Landfill site is located approximately one mile east of the Statesville City Limits and in the Piedmont physiographic province characterized by gently rolling hills and drainage features with moderate slopes. Currently, the site contains a Subtitle D Municipal Solid Waste (MSW) landfill and a Construction and Demolition (C&D) landfill. The MSW landfill consists of three existing phases (Phases 1, 2 and 3). The C&D Landfill is located across the access road from the Phase 2 MSW landfill, and presently consists of one phase (Phase 1 on Plate 1).

The area being proposed in this report is the two new phases (2&3) which are to be added to the existing C&D Landfill, and will occupy approximately 17 acres out of a 55-acre land that has been recently acquired by the county in July of 2000 for landfill expansion purposes. This recently acquired 55-acre property, located adjacent to and bound by the southern border of the existing facility, consists of the eastern and western zones that are separated by the property currently not owned by the county. At present, this area is utilized as farmland where soybeans are grown. The proposed C&D Phase 2 and 3 units will occupy a 17-acre portion of the eastern zone, while the western zone will be used primarily as borrow source (see Plate 1 for the actual phase boundaries). It is important to emphasize, however, that it is this 17-acre sub-area of the 55-acre property that is being proposed in this report as a new landfill area where the Phases 2 and 3 will reside. The remainder of the 55-acre land will *not* be utilized for accepting waste.

An unnamed tributary of the Fourth Creek that flows northeastward is found east of the C&D Phase 2 unit. This tributary, referred in this report to as the eastern creek, emerges in the area south of the proposed C&D Phase 3, then changes its course northward and flows along the eastern border of the existing MSW landfill before it converges with another tributary arriving from the west. This eastern creek serves as the principal zone of discharge for the aquifer underlying the proposed C&D landfill.

The site can be accessed through the main entrance at the northeastern corner of the existing facility where the scale house is located. An access road runs through the site allowing access for light vehicles.

2 GEOLOGY

2.1 Regional Geology

The site lies within the Piedmont physiographic and geologic provinces. A Geologic Map, based on the data from Goldsmith *et. al.* (1988), and Michie (1985) is presented on Plate 2.[9][17] No recently active faults lie within two hundred feet of the site, based on a review of the available geologic maps.[9][12][17] The Eufola Shear Fault Zone does lie southeast of the property, but this fault was reportedly last active during the Mesozoic Period.

The site lies within a seismic impact zone, defined as an area having a greater than 10 percent probability that the maximum expected horizontal acceleration expressed as a percentage of the earth's gravitational pull (g) will exceed 0.10 g in 250 years.[1]

The area has undergone a complex geologic history commencing with deposition of sediments and igneous activity. This was followed by: igneous intrusions, Paleozoic folding and thrust faulting, and three periods of concurrent and subsequent metamorphism.[11] The episodes of metamorphism resulted in general annealing of the thrust faults that are now only located in the field by the presence of dissimilar rock types. The final significant geologic activity consisted of a period of Mesozoic normal and shear faulting along pre-existing Paleozoic faults. This resulted in the approximately 2-kilometer wide Eufola Shear Fault Zone. This fault zone strikes approximately East-West in the vicinity of the property and consists of silicified microbreccia overprinting on the earlier mylonitic rock fabric.[11][9] The Eufola Fault Zone lies southeast of the landfill property, as shown on Plate 2. This location is based on the more detailed work performed by Michie and the results of the core drilling undertaken on the adjacent landfill properties, and is at slightly different location than that shown on the USGS regional reconnaissance geologic map.[9]

Rocks in the area lie on the southeast limb of the Newton Antiform. The Eufola Shear Fault Zone marks the boundary between the Inner Piedmont rocks in the west, and the Kings Mountain or Charlotte Belt rocks in the east. The rocks that lie on either side of the fault zone are distinctive which is important because of the proximity of Eufola Fault Zone and the fact that this fault zone could not be identified in the field due to an absence of significant rock exposures. Another important characteristic to the fault zone is its width and the fact that the rocks within the zone should exhibit microbreccia and mylonitic texture. The location of the fault zone could be deduced during the boring program based on a combination of the presence or absence of mylonitic texture and what type of rocks were encountered in the borings.

North of the Eufola Shear Fault Zone, the rocks consist of a basal unit (Czbga) of interlayered biotite gneiss, hornblende gneiss, amphibolite, and some mica schist. This is overlain by (CZbg) thin to thick layered gray to dark gray biotite-quartz-feldspar gneiss that is interlayered with mica and sillimanite-mica schist and amphibolite. South of the Eufola Shear Fault Zone, the rocks consist of the Kings Mountain suite that includes fine grained

biotite gneiss of granodiorite composition (bgf) and metavolcanics (mvm) of fine to medium grained metamorphosed tuffs. The reported foliation and mineralogical layering directions in the region vary from due North to due East and N25°W to N50°W with dips to the south and southeast generally between 10 and 70 degrees.[9] The north and northeasterly directions occur on both sides of the Eufola Shear Fault zone, while the northwesterly directions were only reported for the Inner Piedmont rocks north and west of the fault zone.

2.2 Site Geology

2.2.1 Rock Descriptions

Although no rock coring was undertaken during subsurface investigation for this project, the rocks encountered for the Site and Design Studies for the adjacent landfill consisted of mica schist, amphibolite, and medium to coarse grained hornblende to biotite gneiss. These rocks are of the type that would be expected to be on the north side of the fault zone. In addition, no evidence of mylonitization was observed, thus further confirming that the property is located north of the Eufola Shear Fault zone.

2.2.2 Fracture Trace Analysis

A stream fracture trace analysis, presented on Plate 3, was performed. The lengths and the orientations of linear segments representing streams and drainages have been reduced to the Rose Diagram consisting of multiple 5-degree slots. A standard score is associated with each slot, and has been calculated by taking the total sum of the lengths of the linear segments that fall into the pre-defined degree range and normalizing it to the highest score.

The dominant directional trends are N0–5°W, N20–25°W, and N30–35°E, with the majority of the traces oriented between N55W and N35E. The absence of linears at either of the possible Eufola Fault locations, absence of a strong East-West linear direction, along with the reported presence of silicified microbreccia and mylonite texture suggests that the Eufola Fault Zone is probably not a zone of weakness for preferential surface and/or ground water flow.

2.2.3 Field Investigation

A total of 20 borings, all of which are equipped with PVC pipe to serve either as a piezometer or as a monitoring well, were used to characterize subsurface conditions of the proposed landfill site. Of the 20 borings, ten already existed prior to the inception of this study, while the remaining 10 were installed anew for this study. All new borings were prefixed "CD-" to indicate that they are intended for the C&D landfill study in order for them to be distinguished from the older borings. The borings prefixed with "MW-" are existing groundwater monitoring wells for the adjacent landfill. In addition to these borings, two temporary, drive-point piezometers numbered

DP-1 and DP-2 were installed in the area across the eastern creek from the proposed area to help determine the groundwater flow regime in the immediate vicinity of the creek.

Under the supervision of MESCO personnel, Geologic Explorations* completed the installations of the "CD-" borings by using a Mobile B-61 rig equipped with 8-inch outer-diameter hollow stem augers. The completion of each boring was followed by an installation of a PVC piezometer pipe intended for the subsequent recording of water levels. Installations of piezometers CD-1 through CD-7 were conducted on November 26–27, 2001 while CD-8S, CD-8M and CD-8D were installed on October 23, 2003. The installations of all aforementioned piezometers were completed in accordance with NCAC Title 15A Subchapter 2C Section .0108 (c)(2).

Standard split-barrel samples of subsurface soils were taken at approximately five-foot intervals. Standard penetration tests were conducted in conjunction with the split-barrel sampling in accordance with ASTM Test Procedure D 1586-84 using a 2-inch GD split-barrel sampler. Shelby tube samples were obtained of select cohesive soils for classification and permeability testing in the laboratory which was completed by Geotechnics.† The results of the laboratory soil testing are summarized in Table 2, and a copy of the original laboratory report is included in Appendix C. Slug test was conducted in the field by MESCO personnel to determine the hydraulic conductivity of the aquifer at the site. Detailed explanations of the field slug tests are given in Section 3.3.

All new borings were logged in the field by MESCO field personnel according to the Unified Soil Classification System (USCS) and sealed in containers for visual inspection. Colors of the soil samples were determined by using the Munsell color chips.

2.2.4 Subsurface Soil Conditions

Soils encountered during the subsurface investigation are dominantly of sand-silt mixture with occasional occurrences of clay lenses. Generally, the soil profile at the proposed landfill site matches the profile developed during the previous Hydrogeologic Studies, and consists of varying thicknesses of silty clay near the surface underlain by either silty sand or sandy silt stratum. In several of the borings, a clay-rich stratum was observed within the upper 15 feet, but clay was also encountered at a depth of 45 feet in one boring. The silty clay generally shows no evidence of relict foliation, mineralogical layering, while both the silt and sandy silt showed the presence of relict foliation, mineralogical layering and relict fracture traces. The presence of relict structures along with weathered quartz, feldspar, and mica being present in the soil samples suggests that these soils are saprolite and were formed by *in situ* chemical weathering of the parent gneiss.

Standard penetration tests (SPT) were conducted on all recent borings. There does not appear to be any notable difference in blow counts between different lithotypes unless quartz lenses or rock fragments were encountered.

*176 Commerce Boulevard, Statesville, NC 28677. Ph. (704) 872-7686.
†3103 Stonybrook Drive, Suite 156, Raleigh, NC 27604. Ph. (919) 876-0405.

There also is no significant downward increase in blow counts until the boring was within 5 to 10 feet from auger refusal at which point the blow counts showed an increase from the range of 10 to 30 to above 50.

2.3 Laboratory Test Results

Soil samples taken from all borings were visually inspected and classified by MESCO field personnel. In addition to classifying soils by texture, several soil samples were tested by an approved geotechnical laboratory in order to help define the hydrogeologic and engineering properties necessary for site characterization. Four soil samples were collected in Shelby tube from borings CD-3, CD-5, CD-6 and CD-7, and were later analyzed in the laboratory by Geotechnics. The laboratory tests were conducted in accordance with the ASTM Standards for the following soil properties:

1. Grain size analysis by sieve and with hydrometer (ASTM D-422)
2. Water content (ASTM D-854 92)
3. Atterberg limits (ASTM D-4318 96)
4. Specific gravity (ASTM D-854 92)
5. Permeability (ASTM D-5084 90)

Table 2 summarizes the lab results for the aforementioned samples. A copy of the original lab report is included in Appendix C.

3 HYDROGEOLOGY

3.1 Total Porosity

Porosity, a macroscopic porous medium property, is defined as the ratio of volume of the void space to the bulk volume of a porous medium.[2] In this report, the term *total porosity* is used to indicate the total pore space within a porous medium regardless of whether or not pores are interconnected.

Values of the total porosity were determined in the laboratory for samples taken from four of the on-site borings CD-3, CD-5, CD-6 and CD-7, and are presented in Table 2. The total porosity ranges from the low of 44% in CD-3 to the high of 53% in CD-5 with an average value of $(50 \pm 2)\%$.[‡] Though published porosity ranges

[‡]This average value uses the "arithmetic average $\pm$ standard error" notation where the standard error ($\sigma_{\overline{x}}$) is derived from the standard deviation (σ) of the n samples by the equation:

$$\sigma_{\overline{x}} = \frac{\sigma}{\sqrt{n}} \tag{1}$$

The standard error is also commonly referred to as the standard deviation of the mean. The standard deviation in turn is calculated by the

slightly differ within individual publications, Bear (1972) states that natural soils have a total porosity of 50–60% while clays 45–55%. Porosities of the samples collected on the site appear to agree with Bear's published values.

Generally, the magnitude of the porosity of unconsolidated materials depends on the packing of the grains, their shape, arrangement and size distribution. Poorly-sorted materials have a porosity much lower than well-sorted ones. The degree of compaction also affects porosity. Since compaction forces vary with depth, porosity will also vary with depth, especially in clays and shales.[2]

3.2 Effective Porosity

3.2.1 Introduction

The term *effective porosity* is defined as the volume of the void spaces through which water or other fluids can travel in a rock or sediment divided by the total volume of the rock or sediment.[8] It differs from the total porosity in that the effective porosity does not take into account disconnected or dead-end pores while the total porosity does. The effective porosity of a porous medium therefore never exceeds the total porosity of the same medium, and it is not uncommon in many natural settings to find the effective porosity of a soil being less than half of its total porosity counterpart.

Another important difference between the total and effective porosities lies in the fact that the effective porosity is grain-size dependent while the total porosity is not. This discrepancy exists because a mass of smaller particles exposes more total surface area, thereby creating more surface tension conducive to more water clinging to the particle surface that are not influenced by the overall flow momentum. This is well reflected in the fact that clay, which consists of a number of very fine particles, exhibits a difference between the total and effective porosities much larger than that of silt or sand.

3.2.2 Method

While we must emphasize that there is no standard approach for determining effective porosity, one viable approach is to use a published relationship between effective porosity and grain-size distribution. Johnson (1967) compiled a number of published effective porosity values and developed a relation between the grain-size distribution and the effective porosity, the effort of which is summarized into a "trilinear graph of textural classification."[15] This trilinear-graph approach was employed in this study to determine the effective porosities

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equation:

$$\sigma = \sqrt{\frac{1}{N}\sum_{i=1}^{n}(x_i - \overline{x})^2} \qquad (2)$$

Note that in this report the term *standard deviation* is used to mean the sample standard deviation as opposed to the population standard deviation.

of soil samples from their corresponding grain-size distributions reported by the laboratory. Four soil samples collected from piezometers CD-3, CD-5, CD-6 and CD-7 were subject to the effective porosity calculation. Details of this method is described as follows.

First, the results of the grain-size analyses were re-interpreted by using the particle-size classification scheme employed in the Johnson's trilinear graph. The classification is defined as follows:

Particle size (millimeters)	
Sand	$2 - 0.00625$
Silt	$0.0625 - 0.004$
Clay	< 0.004

This step is necessary since the laboratory typically uses the ASTM definition of the particle-size classification (ASTM D-422-63) which differs from Johnson's. It should also be noted that Johnson's definition adheres to the recommendation made by the American Geophysical Union (AGU) Subcommittee on Sediment Terminology, which is widely adopted by the USGS in their publications.[14]

Secondly, particles of size larger than 2 millimeters (gravel) were combined with sand to incorporate the effect of gravel into the effective porosity; consequently all particles larger than 0.0625 mm in diameter were considered sand. The resulting compositions, expressed in percent, were then projected onto the trilinear graph by drawing perpendicular lines from each side of the triangle. The texture of the sample and its effective porosity were then inferred from the location at which the three lines intersected. When the intersection point fell between two contours, the effective porosity was estimated by interpolation.

3.2.3 Results

All materials related to the effective porosity calculations are included in Appendix C. Trilinear graphs for the soil samples are presented in Tables C-1, C-2, C-3 and C-4. The calculated effective porosities for these soil samples are presented in Tables 2 and C-2. Note that the effective porosity of the CD-3 sample could not be determined by the trilinear-graph method as its intersecting point fell outside the area of available data. The published value of 7% for sandy clay (see Table C-3) was therefore used as a substitute.

The soils classified as silty sand (CD-5, CD-6 and CD-7) exhibit effective porosities ranging from 18% to 23% which roughly corresponds to the published average effective porosity of 21% for "fine sand" (Table C-3). Comparison of the effective porosity of these three samples with their total porosity counterpart reveals that roughly 30–40% of the total porosity is available for fluid flow within the sandy silt formation. The average effective porosity of all tested samples is (16 ± 3) %, ranging from the low of 7% (CD-3) to the high of 23% (CD-7).

3.3 Hydraulic Conductivity

Hydraulic conductivity (denoted by K) of the upper saprolite portion of the aquifer at the proposed landfill site was determined from the results of field slug tests performed on on-site piezometers. There are 10 piezometers installed for this study and 10 additional piezometers that existed predating the study. Slug tests were performed on March 14 and 15 of 2002 on 9 of these piezometers by using a submersible pump and an electronic datalogger with a built-in pressure transducer.[§] The collected data were then mathematically analyzed by the Bouwer & Rice method to determine the K. The following section provides an overview of the Bouwer & Rice method and the equations used to determine the hydraulic conductivity.

3.3.1 Bouwer & Rice Method

The Bouwer & Rice method can be performed on either open boreholes or screened wells. The wells can be partially screened, perforated, or otherwise open. The slug test can be based on quickly withdrawing a volume of water from the well and measuring the subsequent rate of rise of the water level in the well, or by adding a slug of water and measuring the subsequent rate of fall of the water level in the well. This method was originally developed for unconfined aquifers, but can also be used for confined or stratified aquifers if the top of the screen is some distance below the upper confining layer.[5] The Bouwer & Rice equation is:

$$K = \frac{r_c^2 ln(R_e/R)}{2L_e} \frac{1}{t} ln\left(\frac{H_0}{H_t}\right) \tag{3}$$

where

K is the hydraulic conductivity (ft/sec)

r_c is the radius of the well casing (ft)

R is the radius of the gravel envelope (ft)

R_e is the effective radial distance over which head is dissipated (ft)

L_e is the length of the screen or open section of the well through which water can enter (ft)

The effective radial distance is also the distance from the well over which the average value of K is being measured. If the water level rises in the screened or open section of the well with a gravel or sand pack around it, the thickness and the porosity of the gravel/sand pack column should be taken into account by replacing the original r_c with the modified r_c defined by the following equation:

$$\text{modified } r_c = \sqrt{(1-n)\, r_c^2 + n r_w^2} \tag{4}$$

where

n is the porosity of the gravel/sand pack, and is assumed to be 30%

r_w is the radius of the annular space

[§]In-Situ® miniTROLL data logger, In-Situ, Inc., 210 S. Third Street, Laramie, WY 82070.

This does not apply if the water level stays above the top of the gravel/sand pack column during the entire recovery period. The ratio $ln(R_e/R)$ in Equation 3 can be replaced by either of the following equations:

$$ln\frac{R_e}{R} = \left[\frac{1.1}{ln(L_w/R)} + \frac{A + B \cdot ln[(h - L_w)/R]}{L_e/R}\right]^{-1} \text{ for } L_w < h \quad (5)$$

$$ln\frac{R_e}{R} = \left[\frac{1.1}{ln(L_w/R)} + \frac{C}{L_e/R}\right]^{-1} \text{ for } L_w = h \quad (6)$$

where

L_w is the distance between the static water level and the bottom of the well screen (ft)

h is the height of the aquifer (ft)

The parameters A, B and C are dimensionless numbers that can be plotted as functions of L_e/r_w. The term $ln[(h - L_w)/R]$ in the first equation has the effective upper limit of 6, and should be replaced with 6 if h is considered infinity.[4]

In some cases the plot of head versus time yields a curve with multiple straight-line segments. Such a case occurs when the water in the gravel pack drains rapidly into the well,[5] or a partially submerged screen becomes resubmerged during the recovery period.[3] Thus, data gathered under such conditions should be properly interpreted in order to derive a K value that truly represents the formation of interest.

3.3.2 Field Method

Several different field methods were used based on the initial conditions of the wells. For each well, a field method was selected based primarily on the following factors:

1. the recharge rate of the well on which the test was being performed, and
2. the position of the static water level relative to that of the top of the screened section and the sand pack column.

Static water level was measured prior to proceeding the test in order to ensure that the most current static water level be used for the test. When the static water level was slightly above the top of screen, water was added to the well to create an initial head change. When the static water level was within the screened section, or a margin of the depth between the static water level and the top of the screened section was significantly high, a pump was used to withdraw a portion of the water. The equipment used to withdraw water was selected based on the rate of recharge; a low-yield portable pump was used when the recharge rate was relatively low, and a high-capacity pump was used for a piezometer with a high recharge rate. It should be noted that the Bouwer & Rice method allows either addition of water to or withdrawal of water from a piezometer without creating a significant effect in the resulting K value provided that all the above conditions are met. An electronic datalogger with pressure transducer was used to record depths to the water table during the slug test for all tested piezometers.

It is particularly important to note that, under any circumstances, efforts were made not to inject water into a well when the static water level was below the top of screen. Such an action would create an outflow of water into the vadoze zone through the sand pack, which leads to an overestimation of hydraulic conductivity due to the highly permeable nature of the sand pack column.[5]

After the collection of field data, the data from each slug test was first plotted versus time on semilogarithmic graph, and the Bouwer & Rice method was applied to determine the hydraulic conductivity.

3.3.3 Slug Test Result

All materials related to the slug test results and the calculations of the hydraulic conductivities are included in Appendix B. Hydraulic conductivities, or K values, are further grouped by the soil types they represent. The first group—sand-silt unit—represents the dominant soil type in the aquifer at the study site. The second group—clay unit—represents soils with noticeably high clay content, which are less dominant and occur mostly as lenses at the study site.

Table 3 presents K values that are representative of the sand-silt and clay units. Table B-2 presents K values for individual piezometers. K values vary little within the sand-silt unit, for all of the K values in this unit fall within the 10^{-4} decimal range with an average of 2.63×10^{-4} cm/sec. The K in the clay unit, though only represented by one sample due to a lack of the number of borings penetrating the unit, is 3.35×10^{-5} cm/sec, lower than the average K in the sand-silt unit by an order of magnitude.

4 GROUNDWATER

4.1 Groundwater Regime

Regionally, the upper aquifer occurs in regolith of saprolite and highly fractured crystalline bedrock. Regolith is inclusive of all unconsolidated material that overlies intact bedrock, and is where most groundwater is stored owing to its high porosity. The following table shows representative values of the porosity (n) and the effective porosity (n_e) of several geologic materials (after Singhal and Gupta, 1999):[18]

Geological formation	n (%)	n_e (%)
Unconsolidated deposits		
Gravel	28 – 34	15 – 30
Sand	35 – 50	10 – 30
Silt	40 – 50	5 – 20
Clay	40 – 60	1 – 5
Rocks		
Dense crystalline rock	0 – 5	0 – 3
Fractured crystalline rock	5 – 10	2 – 5
Weathered crystalline rock	20 – 40	10 – 20

The above table suggests that the porosity and the effective porosity of crystalline rock are typically much lower than those of unconsolidated material if the rock is not fractured or only lightly fractured. Heavily weathered crystalline rock, however, can have the porosities close to the porosities of the unconsolidated materials.

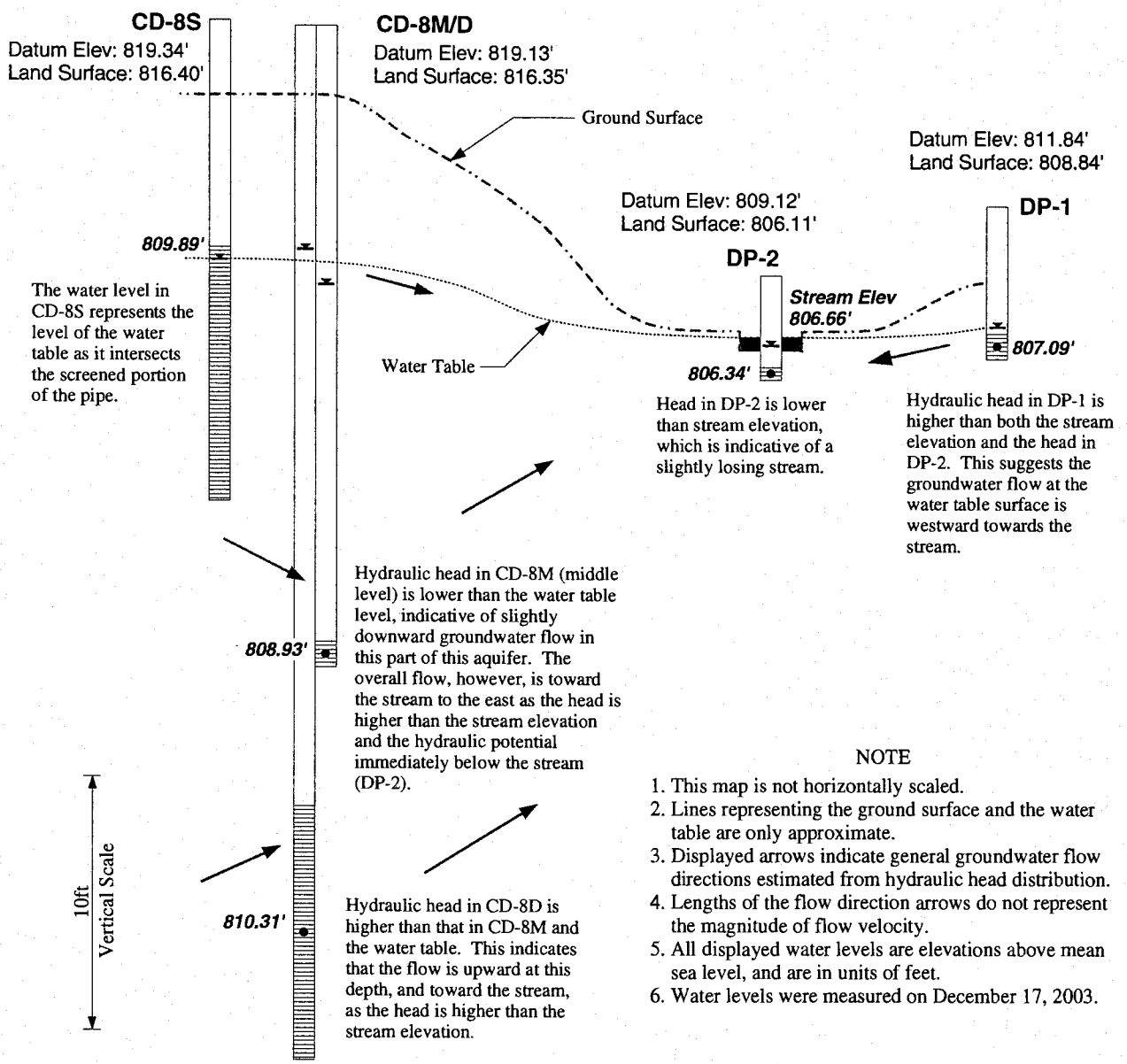
Infiltration occurs when precipitation reaches the land surface and penetrates the unsaturated soil. Water then moves laterally and downward through a temporary saturated zone. Ultimately, water will move into bedrock and be transported along interconnected fractures to points of discharge.

Groundwater flow dynamics at the proposed landfill site is primarily controlled by two unnamed creeks that are tributaries to the Fourth Creek found adjacent to the landfill property. One creek is found 1,500 feet northwest of the proposed cell and adjacent to the Phase 1 and 3 units of the existing MSW landfill, while the other is found directly east of the proposed Phase 2 C&D cell and flows northward (referred to as the eastern creek in this report). Although the groundwater generally maintains a northerly flow momentum over the entire landfill property, the presence of these creeks drives the groundwater to flow radially in northwesterly, northerly, and northeasterly directions upon its entrance to the property. Water table lies mostly within the overburden saprolite portion of the aquifer, but can be found, albeit uncommon, in the underlying fractured bedrock layer in some areas of the landfill property.

Within and in the vicinity of the proposed Phases 2 & 3 units, groundwater flow is restricted to easterly to northeasterly direction (see Plate 5). Water table in this area is generally found in saprolite approximately from 10 to 40 feet below ground surface. Depths to the water table generally becomes shallower toward the eastern creek.

The eastern creek appears to be the primary zone of discharge based on the vertical distribution of hydraulic heads measured in nested piezometer CD-8S/M/D, and two temporary drive-point piezometers DP-1 and DP-2 (see Plate 1 for their locations). The eastern creek has three identified tributaries. DP-1 is placed on the eastern side of one of these tributaries with an screened interval of 1 foot, while DP-2 is installed directly into the tributary in order to measure hydraulic head immediately below the stream bed. The location of DP-2, although not installed directly onto the parent eastern creek, is sufficiently close to the confluence of the tributary and its parent creek, and therefore was considered representative of the eastern creek.

Figure 1. Schematic cross-section of discharge area.



A schematic cross-section is presented in Figure 1 which displays vertically-scaled geometries of the piezometers and their positions relative to the stream. Note that this cross-section is not horizontally scaled, and the relative horizontal spacings between the piezometers and the creek do not reflect their locations in real life. Hydraulic heads in Figure 1 are displayed as elevations above mean sea level, and were all measured on December 17, 2003. Displayed ground surface and water table are only approximate, and their actual topography may differ in some areas.

An observation of the hydraulic head distribution suggests that the subject aquifer can be divided into three different sections based on the general flow direction. In the upper portion of the aquifer to the west of the creek, groundwater generally flows eastward towards the creek and downward into the deeper portion of the aquifer. In

the lower portion of the same aquifer immediately below the aforementioned section, the water flows up-eastward towards the creek for discharge. On the eastern side of the creek, the water tends to flow westward towards the creek.

The head measured in DP-2, being lower than the surrounding stream elevation by 0.32 feet, indicates the stream is slightly losing water to the underlying aquifer at the time of the measurement. While this may contradict the above observation that this creek receives groundwater discharge from the underlying aquifer, the water loss may be attributed to excessive rain experienced prior to the measurement that had temporarily raised the stream surface above water table level.

To summarize, the hydraulic head distribution as presented in Figure 1 suggests the likelihood of the eastern creek being the primary zone of discharge for the groundwater migrating from either side of the creek. The flow regime in the deeper portion of the aquifer below and on the east side of the creek could not be accurately determined due to inaccessibility of the eastern area by vehicles, which prohibits installation of any adequately deep piezometer that would normally require a vehicle-mounted drill rig. Nevertheless, the available piezometric information provides sufficient evidence suggestive of the likely scenario that the groundwater in the uppermost aquifer on the west side of the eastern creek is discharged into the creek.

4.2 Groundwater Flow Component

Plate 5—*Single day potentiometric map with flow directions*—shows a potentiometric surface created based on the December 17, 2003 readings which depicts near-uniform easterly flow toward the eastern creek. The average linear velocity was determined at each existing piezometer location to quantify the rate of groundwater flow at various locations at the site. The average linear velocity is defined as

$$v_x = \frac{Q}{n_e} = \frac{K}{n_e}\frac{dh}{dl} \tag{7}$$

where

v_x = average linear velocity
Q = specific discharge
K = hydraulic conductivity
n_e = effective porosity
$\frac{dh}{dl}$ = hydraulic gradient

The hydraulic gradient at a piezometer location was estimated graphically from Plate 5 as described below. First, a line was drawn at each existing piezometer location in the direction of its hydraulic gradient. The line was drawn such that it crosses the equipotential line at a right angle in the shortest distance possible. The elevation

of the hydraulic head at the head and tail of the arrow was then determined visually from the map, the absolute difference of which was then defined as the head difference dh. The lateral distance dl, on the other hand, was estimated from the horizontal length of the arrow. The division of dh by dl then would give the hydraulic gradient.

Table B-3 shows the results of the flow rate calculations expressed in units of feet per year and the parameters used in the calculations. Velocities range from the low of 11.97 ft/yr at CD-3 to the high of 144.51 ft/yr at MW-16 with an average of 74.68 ± 12.37 ft/yr. The variance in the velocity does not appear to be spatial-dependent; low and high velocities are distributed evenly across the area.

4.3 Regional Climate

North Carolina ranks sixth in the nation in average annual precipitation (50 inches) and has a mild, humid climate. About 72 percent of the precipitation is returned to the atmosphere by evapotranspiration, and about 20 percent recharges the groundwater systems. In 1986, the state experienced the fifth driest year on record, and precipitation was less than normal in most areas.[19] Following that year, the Statesville area experienced minor droughts from 1991 through 1994, and the prolonged multi-year drought starting in 1999 which ended in 2002.

Daily precipitation data, recorded at two individual stations in Statesville and Mocksville, were obtained electronically from the State Climate Office (SCO) of North Carolina for the period of January 1, 1960 through February 28, 2002 for the purpose of characterizing the regional climatic trends.

Yearly precipitation is distributed almost evenly in the Statesville area,[16] though rainfall amounts are slightly higher than normal in March and June. Figure D-12—*Average precipitation by month, the Statesville 2 NNE*—depicts that the average monthly total precipitations range between 3 and 4 inches, except for March and June—the months that experience most excessive rainfall in the Statesville area. The Mocksville Station—the station identified as *Mocksville 5 SE* located approximately 20 miles east of the Statesville Station—shows a rainfall distribution similar to Statesville's (see Figure D-16).

Figures D-11 and D-15—graphs displaying annual totals at the aforementioned weather stations—depict periodical variances of annual precipitation at both of these stations, with the steadily-declining amounts of rainfall that are lower than the historical average in recent years.

The relationship of the measured precipitation from the aforementioned two weather stations was assessed quantitatively by statistical method. To accomplish this, the daily precipitation data obtained from the SCO for the two aforementioned stations were first transformed into their monthly totals,[¶] which were then paired by the

[¶] A monthly total precipitation was calculated by summing all daily precipitation levels divided by the number of measurement days for a given month and further multiplied by 30. This eliminates a slight bias in the resulting data introduced by the inconsistent numbers of days for different months.

measurement month for the subsequent calculation of the Pearson's product-moment correlation coefficient (R). Table D-4 includes figures involved in the transformation of the daily data into the monthly data. To further improve the consistency of the compared data set, each monthly pair was individually evaluated to ensure the same numbers of measurements were taken for the given monthly pair. If the numbers were inconsistent, that pair was dropped from inclusion for the calculation of the coefficient. Approximately 8% of the original data set was dropped after this evaluation. The included pairs are plotted graphically in Figure D-17. The resulting coefficient is 0.803 ($P < 2.2 \times 10^{-16}$), with the corresponding R^2 65%, suggesting that the monthly precipitation levels in Mocksville and Statesville yield a statistically significant correlation (see Sections 4.5.1 and 4.5.2 for detailed explanations of correlation coefficient and P value).

4.4 Water Table Fluctuation

4.4.1 USGS Observation Well Data

Data from a local USGS observation well was obtained to track natural fluctuations in the regional water table. Since the USGS currently does not maintain any observation well within Iredell County that provides sufficient historical data, NC-142, located near Mocksville in Davie County, is the closest currently available observation well. NC-142 is located 0.5 miles northeast of Mocksville township on U.S. Highway 158 at B.C. Community Center.[‖] The well is 6-inch in diameter, installed to a depth of 30.8 feet with open end, and backfilled with gravel from 20 to 30.8 feet. It taps on an unconfined aquifer consisting of weathered granite of Paleozoic age. The surface elevation at the well location is 835 feet above mean sea level (MSL), and all data are with reference to the top of casing which is 1.00 feet above ground surface (836 feet above MSL).[14]

Water table depths in this observation well have been recorded daily since October, 1981. MESCO obtained data electronically from the U.S. Geological Survey for the period from October 1, 1981 through December 17, 2003 (all data past September 30, 2002 is provisional).** Figure D-1, showing daily groundwater data recorded at the NC-142 observation well, depicts a gradual but consistent increase in the water level starting in mid-1986 and peaking in early 1993. The level subsequently decreases at a slow but steady rate thereafter until mid-2002. This prolonged decline of water table in this period is largely attributed to the persistent decline of rainfalls experienced in the region (see Figures D-11 and D-15). The fact that this trend is also present in the hydrographs of on-site monitoring wells (see Tables D-3 and D-5) confirms this as a regional trend attributable to the prolonged drought mentioned in Section 4.3. The immediate recovery of water table in 2003 as depicted in Figure D-1 evidences the end of the multi-year drought that caused the regional decline of the water table through the year of 2002.

Although rainfall serves as a major source of groundwater recharge for the aquifers it serves, an immediate

[‖] lat. N35°53'59" lon. W80°33'17"

** Data from NC-142 are updated daily and can be browsed on-line in real time on the USGS Ground Water Climate Response Network website.[10]

recharge of an aquifer is usually dampened by surface runoff, uptake by vegetation, or evaporation into the atmosphere (the combination of the last two is referred to as *evapotranspiration*). Because of this, a sudden increase of rainfall does not always result in a rise in water level, and, while minor peaks in water level may result from intense rainfall of short duration, major trends usually are independent of precipitation, and are attributed to an absence of evapotranspiration as discussed later in this section.

Water table typically peaks in March or April, and subsequently drops until a low is reached in October or November (see Table D-1). This parallels with the observation made by LeGrand (1954), who described seasonal trends in the Statesville area[††] as follows.

> *In the Statesville area there is a noticeable change in the water table with the seasons. It generally begins to decline in April or May, owing to the increasing amount of evaporation and transpiration by plants, which not only consume ground water but reduce the amount of precipitation that can reach the water table. Although interrupted by minor rises due to exceptionally heavy rainfall, this decline generally continues through summer and autumn, in spite of the abundant rainfall of July and August. By November or December, when much of the vegetation is dormant and evaporation is low, the precipitation again becomes effective in producing recharge and the water table begins to rise until it reaches another high stage about April or May of the next year.*

Although water level data were not collected over an entire year at any single piezometer location within the proposed landfill area to directly confirm this trend, all previous hydrogeologic studies conducted for the adjacent MSW landfill noted trends that resemble LeGrand's characterization. Since the adjacent MSW landfill and the proposed C&D landfill overlie the same aquifer system, water table within the proposed area will likely follow LeGrand's observations.

4.5 Long-Term Seasonal High Estimation

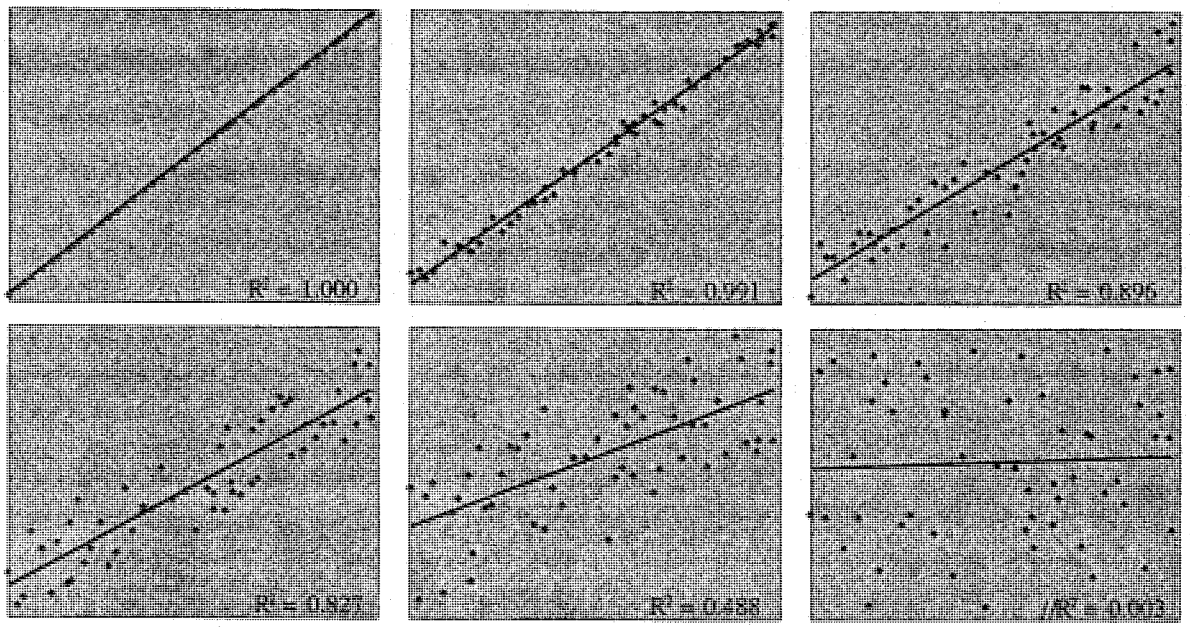
4.5.1 Pearson's Correlation Coefficient

In order to understand the statistical procedure employed for the estimation of long-term seasonal high water table elevations (described in detail in Section 4.5.4), it is important to have a good understanding of Pearson's correlation coefficient, commonly denoted by R—a coefficient used to quantify the degree of correlation between two compared groups of data. The Pearson's correlation coefficient (R) between N number of data group X and the equal number of data group Y is defined by the following formula:

$$R = \sqrt{\frac{\left(\sum XY - N\overline{XY}\right)^2}{\left(\sum X^2 - N\overline{X}^2\right)\left(\sum Y^2 - N\overline{Y}^2\right)}} \qquad (8)$$

[††]In his publication *Geology and Ground Water in the Statesville area, North Carolina* published in 1954, the term "Statesville area" includes Alexander, Catawba, Iredell, Davie, Rowan, and Davidson Counties.

Figure 2. Example scatterplots with various degrees of correlations. A degree of correlation is represented by an R^2 value.



where $\overline{X}$ and $\overline{Y}$ represent the mean values of group X and group Y, respectively. Note that Pearson's correlation coefficient is also referred to as the product-moment coefficient of correlation, or simply the correlation coefficient. Many major spreadsheet programs also provide a built-in function for calculating a correlation coefficient.

When two groups of numerical data are plotted with respect to each other by using a common parameter shared by both groups to bind the two (such as the dates of measurement), the individual data points either fall into a near-straight line, or scatter over the graph depending upon the degree of their relationship. The two groups are said to have a linear relationship when the resulting data points gather around a single straight line that is drawn by least-square fitting (also known as the best-fitting curve). As the level of their linear relationship decreases, however, the points starts to deviate farther from the curve. When the level of the linear relationship finally approaches zero, the data points appear scattered all over the graph in a totally randomized fashion. Figure 2 shows scatterplots of two sets of data with six different levels of correlations represented by the R^2 values. As the figure depicts, a lower R^2 corresponds to a more widespread data points around the best-fitting curve, and vice versa. In other words, the degree of spreading of the data points is inversely proportional to the value of the correlation coefficient.

4.5.2 Probability Value

In a certain situation, two totally unrelated groups of data can produce a high correlation coefficient by chance alone. This is especially true when the number of compared pairs is too low, and the resulting correlation coefficient is not sufficiently high. This can be easily demonstrated by comparing two data groups each with only two data points. Since two data points always produce a perfect-fit curve ($R = 1$), this may lead to an

incorrect conclusion that these two data sets are perfectly correlated. This is obviously not true, as two data points, no matter how they are positioned with respect to each other, will always yield a "perfect fit".

To solve this quandary, one can determine whether a calculated correlation coefficient represents the true correlation between the compared data pair by inspecting the probability value (or simply the P value) associated with the comparison. By definition, a P value ranges from 0 to 1, and is the probability of achieving a statistical test result when in fact the opposite of the test result (null hypothesis) is true. In the context of statistical test of correlation, the null hypothesis is that the two compared data sets have absolutely no correlation ($R = 0$). The null hypothesis is only to be rejected when the associated P value is smaller than the desired level of significance, which is commonly set to 0.05. In other words, if a statistical correlation test produced an R value of 0.937 with a P value of 0.345, this test result would be considered statistically insignificant, and the calculated R value would therefore have to be rejected. Note that a P value being less than 0.05 only suggests that the calculated correlation coefficient is representative of the true coefficient value, but this fact does not itself imply a high correlation. A low correlation coefficient (R) can still result even if the correlation test result is statistically significant.

4.5.3 Examples

Real-life data from three different on-site piezometers/monitoring wells are provided in Appendix D to visualize the concepts of correlation coefficient and probability value presented in the preceding two sections. Figure D-3 provides hydrographs of MW-1A and NC-142 for graphical comparison of the data from the two wells. The data for NC-142 is only a subset of its daily data in order to match the measurement dates of MW-1A. This is a prerequisite for regression analysis.

Figure D-3 depicts that trends in the water levels in MW-1A and NC-142 are generally similar, and that both hydrographs reflect the long-term drought experienced from the early 90's through 2002 and the subsequent recovery that follows. This notion of similarity also appears in Figure D-4 which depicts data points gathered around their best-fit curve with a high R value of 0.890 ($P = 0.000$).

Comparisons between MW-12 and NC-142 and between CD-1 and NC-142 show similar trends. Evidenced in Figures D-5 and D-6 are the relationship in the long-term water level fluctuation trends between MW-12 and NC-142 that yields a high correlation ($R = 0.978$) that is statistically significant ($P = 0.000$). Although fewer measurements were available, similar trends are depicted in Figures D-7 and D-8 for the relationship between CD-1 and CD-142.

The fact that three different on-site observation wells of varying ages and locations all yield statistically significant correlations with the USGS observation well suggests that the fluctuation of water table in the aquifer underlying the site is well represented in the hydrograph of NC-142 with a reasonable level of confidence. As

discussed later in Section 4.5.6, however, not all the tested observation wells showed statistically significant correlation with NC-142. But their statistical insignificance is usually attributable to non-hydrogeological elements, such as insufficient grout/bentonite sealing, buffering caused by a nearby surface water feature, or simply a lack of measurement events.

4.5.4 Prediction of Long-Term Seasonal High Through Simple Regression

Long-term seasonal high elevations of the water table in the study area were estimated through simple regression method from the combination of historical daily water level data recorded at NC-148 and the data collected from on-site piezometers and existing monitoring wells.[‡‡] The data from the USGS well were used as the reference variable (X-axis) in order to extrapolate the historical high water table elevations at the on-site piezometer locations (Y-axis). The estimated highs were then used to generate the long-term seasonal high water table map displayed in Plate 6. The method of estimation is described as follows.

Firstly, the original NC-142 data, which are given as "depths to water below datum", were converted to their equivalent elevations, and a subset of the data was drawn to match the dates of measurement at on-site piezometer locations. Correlations between data from the on-site piezometers and those from NC-142 were then evaluated in terms of correlation coefficient (R) and P value (given in Table 5) in order to ensure that a sufficient, and statistically significant correlation exists between the compared data set with a P value of less than 0.05. The following 17 piezometers, CD-3, CD-8S/M/D, DP-1, DP-2, MW-1B/C, MW-3A/B, MW-4B, MW-5, MW-10R, MW-14A, P2-10S, and PZ-1D/S, were dropped from calculation of seasonal highs due to either their high P value ($P > 0.05$) or their lack of sufficient number of measurements.

Simple regression method was applied to each pair of data sets X-Y where the X represents a subset of the data from NC-148 ($X = \{x_1, x_2, x_3, ..., x_N\}$ where N is the number of samples), the Y from a Phase 2 piezometer ($Y = \{y_1, y_2, y_3, ..., y_N\}$) in order to compute the slope (b_{yx}), and the Y intercept (a) of the best-fitting curve for the compared pair. The slope b_{yx} is defined by the following computational formula:

$$b_{yx} = \frac{N\sum XY - \left(\sum X\right)\left(\sum Y\right)}{N\sum X^2 - \left(\sum X\right)^2} \tag{9}$$

This equation can be further reduced into a simpler form:

$$b_{yx} = \frac{\mathrm{cov}(x, y)}{\mathrm{var}(y)} \tag{10}$$

The terms $\mathrm{cov}(x, y)$ and $\mathrm{var}(y)$ in Equation 10 are expandable to:

$$\mathrm{cov}(x, y) = \frac{1}{N}\sum_{i=1}^{N}(x_i - \overline{x})(y_i - \overline{y}) \tag{11}$$

[‡‡] In the context of describing the method for estimating long-term seasonal high, the term "on-site piezometers" will be used to include both the Phase 2 piezometers and existing monitoring wells, on the basis that wells of both categories were used solely for their water level information.

$$\text{var}(y) \;=\; (s_y)^2 \tag{12}$$

respectively, where s_y is the (population) standard deviation of Y. In our calculation of seasonal high, Equation 10 was used to calculate the b_{yx}'s because of its simplicity.

The a is determined by the following:

$$a = \overline{Y} - b_{yx}\overline{X} \tag{13}$$

With the b_{yx} and a given, the predicted historical high ($Y_{predicted}$) can be determined from the historical high at NC-148 (X_{high}) by:

$$Y_{predicted} = b_{yx}X_{high} + a \tag{14}$$

where X_{high} in this instance equals 193.30 feet—the highest daily water level recorded on April 11, 2003.

4.5.5 Standard Error of Estimate

It is rare that the predicted seasonal high water table elevation ($Y_{predicted}$) at any given piezometer location be identical with the true seasonal high. As in any other statistical prediction method, a margin of error is to be expected. This margin of error, referred to as the *standard error of estimate* in the context of statistical prediction via regression, was determined for each calculated seasonal high to accommodate the uncertainty associated with the prediction. In this report, the standard error of estimate is denoted by s_{yx}.

The standard error of estimate (s_{yx}) is defined by the following formula:

$$s_{yx} = \sqrt{\frac{\left[\sum Y^2 - \frac{(\sum Y)^2}{N}\right] - \frac{\left[\sum XY - \frac{(\sum X)(\sum Y)}{N}\right]^2}{\left[\sum X^2 - \frac{(\sum X)^2}{N}\right]}}{N-2}} \tag{15}$$

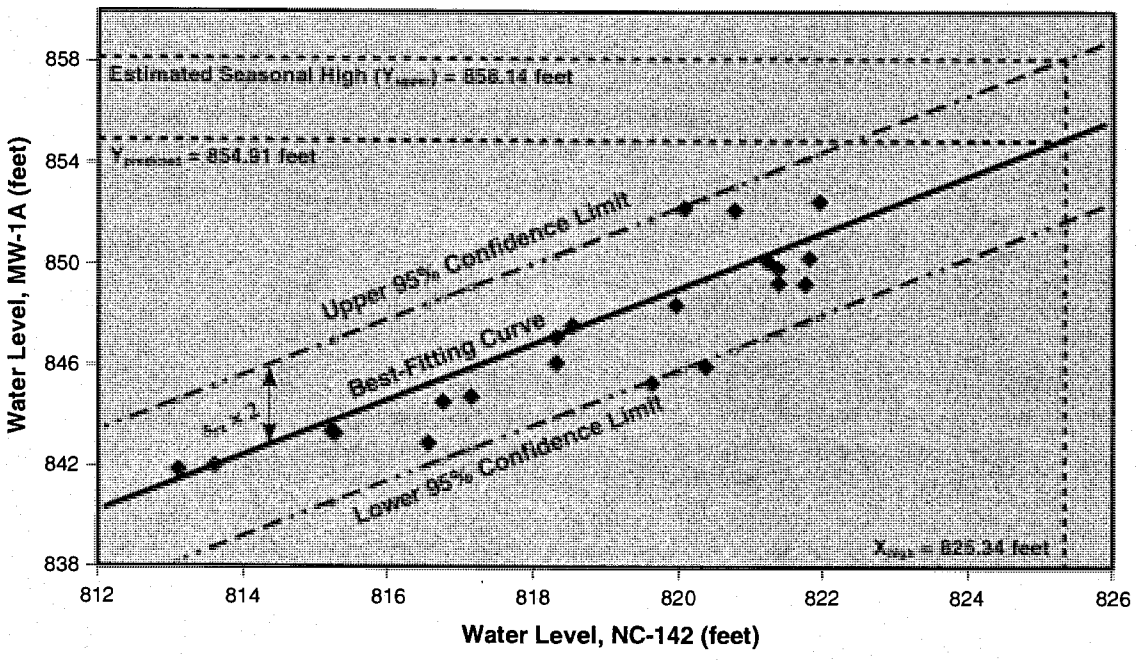
This equation can be further reduced to:

$$s_{yx} = s_y\sqrt{1-R^2}\sqrt{(N-1)/(N-2)} \tag{16}$$

where R is the correlation coefficient introduced in Section 4.5.1. As with the calculations of b_{yx}, Equation 16 was used in our calculation of seasonal high because of its mathematical simplicity.

The standard error of estimate is defined such that there is a 68% percent chance that the actual observed Y will fall within $Y_{predicted} \pm s_{yx}$ and a 95% chance that it will fall within $Y_{predicted} \pm 2s_{yx}$. In other words, it is with 95% certainty that the historical seasonal high will be below $Y_{predicted} + 2s_{yx}$. Based on this, the value defined by

Figure 3. Graphical representation of the standard error of estimate as a means to predict a long-term seasonal high water table elevation. The graph depicts the process of calculating a seasonal high for MW-1A as an example.



$Y_{predicted} + 2s_{yx}$ was used as the long-term seasonal high water table at a piezometer location (denoted by Y_{upper} in Table 5). This calculation method was developed as a modification of the simple regression method outlined in Bruning and Kintz (1997).[6] A graphical representation of the standard error of estimate is given in Figure 3 (MW-1A shown as example). The region between the upper and lower 95% confidence limits is sometimes referred to as the *prediction band.*[7]

4.5.6 Summary

A total of 45 on-site piezometers and monitoring wells were tested for their correlation with NC-142, of which 28 (62%) exhibited a statistically significant correlation and 19 had a correlation coefficient greater than 0.8. This evidences a general high correlation between the on-site water table fluctuations and those in the USGS observation well.

Table 5 displays all estimated long-term seasonal high elevations along with other parameters involved in the estimation of the seasonal highs. Table 1 also displays the differences of the long-term seasonal highs (H_{SH}) from their respective observed highs (H_{OH}). Plate 6 displays a water table contour that represents the surface of the estimated seasonal high water table elevations.

For the entire facility property, the estimated seasonal highs are higher than the respective observed highs by 0.55 to 8.55 feet averaging 3.26 feet. The estimated seasonal high for MW-2 was found 0.47 feet lower than its observed high counterpart. This was, however, most likely caused by the presence of an outlier reading measured

on March 7, 1995 which can be attributed to the measured water level not representing the actual water table level. All other tested wells/piezometers showed their calculated seasonal high greater than their corresponding observed high.

The discrepancy between the true water table level and the level of a hydraulic head inside piezometer sometimes occurs due to external elements such as an in-pipe condensation incorrectly registered as the water table by the measuring equipment, or a sudden spike in the head due to excessive rainfall preceding the measurement event which can artificially raise the head either by the effect of air entrapment or improper sealing of the upper portion of the well. The latter is the probable cause for MW-2 since 1) the two neighboring monitoring wells MW-3A and MW-3B also exhibit a spike on the same day the level in MW-2 was measured, and 2) the daily precipitation record reveals a four-day rainfall amounting to 0.56 inches of rain ($\approx$ 0.05 feet) prior to the day of measurement. Since the total amount of the prior rainfall (0.05 feet) would not have significantly raised the water table even if it had been consumed for the recharge in its entirety, it is another piece of evidence for the artificial spike of the hydraulic head that has no relation with the true water table level.

Within the proposed landfill area, on the other hand, the estimated seasonal highs are 1.17 feet to 3.90 feet higher than their observed high, averaging 3.03 feet above observed high. Seasonal highs for the locations of CD-3 and CD-8S were estimated by triangulation from the closest neighboring nodes as their seasonal highs could not be calculated via regression due to their high P value (> 0.05) or insufficient number of available measurements.

The advantage of using the standard error of estimate, which is introduced in Section 4.5.5, to offset the predicted seasonal high is that the magnitude of the standard error increases with a decreased correlation coefficient. In other words, if the degree of correlation between two measurement locations is low, the resulting standard error of estimate becomes high, which will in turn raise the long-term seasonal high to account for the uncertainty associated with such low correlation. The use of the standard error of estimate therefore serves as a safety net for the inevitable uncertainty inherent in a statistical procedure.

Another advantage, which is more related to the regression method, is that the discrepancies in the range of seasonal fluctuation between individual piezometer locations is accounted for by using this method. As we have generally observed in our past hydrogeologic studies, the absolute amounts of seasonal water table fluctuations vary from one piezometer to another even if the piezometers are placed within close proximity in a relatively uniform geologic environment. For instance, one piezometer located near a permanent stream may exhibit an annual fluctuation of 1–2 feet, while another located on hilltop may exhibit 7–8 feet. This is largely due to the fact that the amount of fluctuation is greatly influenced by, but not limited to, the distance to a discharge zone and/or recharge zone and the depth of an overlying unsaturated zone when all other factors, such as the soil moisture content and the hydraulic conductivity of the aquifer material are assumed equal. In other words, in a hypothetical situration where one piezometer has shown an annual water table fluctuation of 5 feet, one should

not assume that the annual fluctuations in all other piezometers within close proximity are all 5 feet even if the site geologic and hydrogeologic conditions appear uniform across the site. Moreover, water table tends to exhibit a lesser amount of fluctuation when closer to a surface water body, whether it is a zone of discharge or recharge, as a surface water body will buffer any lowering or rising of water table by recharging the groundwater or allowing the groundwater to discharge into it.

In summary, a long-term seasonal high water table level, when predicted by using the statistical method presented in this section, should reflect climatic and hydrogeologic conditions among other elements that control the behavior of seasonal water table fluctuations. This will result in more consistent, and probably more accurate, long-term seasonal highs than those predicted in a non-statistical procedure.

5 GROUNDWATER QUALITY MONITORING SYSTEM

5.1 Introduction

The current ground and surface water monitoring program developed for the Iredell County Landfill consists of 30 groundwater monitoring wells and 5 surface water monitoring points. This monitoring program covers the Phase 1, 2 and 3 portions of the existing MSW landfill and the Phase 1 portion of the C&D landfill. The new monitoring wells and surface water monitoring point being proposed in the following two sections will be added to the existing monitoring network, and will therefore be numbered consecutively from the highest-numbered existing monitoring well and surface water monitoring point to avoid conflict in numbering. In addition, all proposed monitoring points should be sampled in conjunction with the sampling of the existing monitoring points within a reasonably short time frame ($\approx$ one week). This is necessary in order to produce a meaningful potentiometric map, or, in an unlikely event of groundwater contamination, to map the distribution of contaminants that are reasonably representative of its true distribution.

5.2 Groundwater Monitoring Well

Groundwater in the proposed phases generally flows eastward towards the eastern creek, which serves as the primary zone of discharge for the aquifer underlying the proposed phases. The creek initially springs out in the area south of the Phase 3 then flows east to northeastward alongside the eastern boundary of the proposed Phase 2, then later changes its course northward (see Plate 5). Three new monitoring wells, of which one is nested, are being proposed in order to achieve an early detection of contaminant migration from the proposed C&D phases (see Plate A for their proposed locations).

MW-22 will be converted from piezometer CD-3, which is located approximately 140 feet east from the eastern

phase limit. This well will intercept the portion of the groundwater that travels through the upper third of the proposed phases. In an unlikely event of contaminant release in this part of the proposed area, this well should detect the release before it reaches the zone of discharge located farther downgradient to the east.

MW-23 will be converted from piezometer CD-6—located approximately 80 feet from the eastern limit of the Phase 2—in order to monitor the portion of the groundwater that cuts through the mid-part of the proposed area. This mid area portion monitored by MW-23 constitutes roughly one-third of the entire proposed area (Phases 2&3).

MW-24 will be converted from piezometer CD-8, and will consist of a pair of one shallow and one deep monitoring wells to monitor the groundwater near the stream of discharge at two different levels. The wells will be located immediately inside the phase limit and 75 feet from the proposed waste limit. MW-24 will intercept the portion of the groundwater that travels in the middle portion of the Phase 3 through the southern third of the Phase 2.

A combination of MW-22, MW-23 and MW-24 will provide sufficient coverage to detect contaminant migration from the proposed area should groundwater contamination become reality. These wells are, by design, equally spaced to achieve maximum efficiency, desirable for an area with relatively uniform groundwater flow.

MW-1C, installed next to the existing MW-1A/B monitoring wells, will be incorporated upon initiation of the monitoring of the proposed C&D phases. MW-1A/B presently serve as the background monitoring wells for the existing Phases 1&2 MSW and Phase 1 C&D units. MW-1C will replace MW-1B due to its consistent dry state that affected its role as a background well during the regional drought period. The dryness of MW-1B was a direct result of the regional decline of water table that affected the Statesville area in general, which caused the water table to drop as much as 10 feet from its peak time in 1995 (see Figure D-3). Though the drought period ended in 2002 which has brought MW-1B out of its consistent dryness, evidence suggests its insufficient sealing in the upper portion of the well, which will lead to erroneous water level readings and inaccurate water quality information during a rainfall event of sufficiently long duration.

The monitoring wells will be constructed in the manner depicted in Plate B, though details may differ slightly depending upon field conditions. Table 4 shows the specifics of the proposed monitoring wells estimated from available topographical and groundwater information.

5.3 Surface Water Monitoring

The eastern creek and its tributaries are the only known surface water body in contact with the aquifer system underlying the proposed phases. There is currently one surface water monitoring point (SW-3) farther downstream from the Phase 2 near the existing Phase 1 unit. This monitoring point was installed originally as a background

for the Phase 2 part of the MSW, but will serve as a downstream monitoring point whose purpose now is to detect contaminant migration that might originate from upstream.

To accommodate this change, a new upstream surface water monitoring point SW-6 is being proposed that will replace the role of SW-3 as a background monitoring point. SW-6 will be placed within 50–100 feet from the spring location (see Plate A). In addition to its primary role of establishing a background water quality for the downstream monitoring point, SW-6 will also monitor for a potential leakage from the extreme southern portion of the Phase 3 area. Since the part of the aquifer west of the spring is hydraulically connected with the spring, contamination affecting this section of the aquifer can be detected by SW-6.

A permanent mark should be placed at the locations where the surface water sample should be taken. Currently, SW-3 is tested semi-annually for the Appendix I list of constituents, and will continue to be tested semi-annually for the Appendix I. SW-6 will also be sampled and tested for the Appendix I constituents.

5.4 Summary

In summary, we propose the following to be undertaken in order to provide a sufficient ground and surface water monitoring capability for the proposed Iredell County C&D landfill Phases 2 and 3.

1. Incorporate one additional upgradient background monitoring well MW-1C to replace the existing but only semi-functional monitoring well MW-1B.
2. Convert four downgradient compliance wells MW-22, MW-23, and MW-24S/D from existing piezometers.
3. Place a new surface water monitoring point (SW-6) upstream near the spring and use it as a background monitoring point.
4. Use the existing surface water monitoring point (SW-3) as a downstream monitoring point.

6 CLOSURE

This report completes the requirements for the geological and hydrological features for the Sanitary Landfills as described in Rule .0504(c). Geological and hydrological data, information, and conclusions contained herein and in reports of adjacent studies indicate no hindrance to the development and monitoring of the described Phases 2&3 portions of the construction & demolition (C&D) landfill.

All temporary piezometers and borings installed during subsurface exploration and not converted to permanent monitoring wells or piezometers will be abandoned in accordance with the procedures for permanent abandonment of wells as described in 15A NCAC 2C Rule .0113(a)(2). All information included herein is intended to be used for the characterization of the proposed C&D Landfill site. Conditions encountered and described in this report are site specific and do not indicate subsurface soil, water, or rock conditions at any other site.

Respectfully submitted,
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Tables

Table 1. Groundwater elevation summary

	Date Drilled	Ground Elevation	Top of Pipe	Bottom of Screen	Top of Rock	While Drilling	After Drilling	24 Hours After
CD-1	11/26/2001	872.40	874.70	839.70	-	849.40	847.13	847.13
CD-2	11/27/2001	865.46	867.96	820.46	820.46	827.46	829.47	829.00
CD-3	11/27/2001	829.31	832.31	792.31	-	803.31	798.41	800.53
CD-4	11/26/2001	875.26	877.86	830.81	-	842.26	844.08	844.16
CD-5	11/27/2001	-	860.28	-	-	-	821.13	821.81
CD-6	11/27/2001	817.12	820.62	794.12	-	804.12	804.86	807.14
CD-7	11/27/2001	829.07	831.17	809.07	-	817.07	817.22	817.22
CD-8D	10/21/2003	816.35	819.13	778.35	-	809.35	809.60	809.55
CD-8M	10/21/2003	816.35	819.13	-	-	809.35	809.67	807.30
CD-8S	10/21/2003	816.40	819.34	800.40	-	809.40	809.13	809.16
DP-1	10/21/2003	808.84	811.84	805.84	-	804.84	806.59	-
DP-2	10/21/2003	806.11	809.12	805.01	-	803.10	-	-
MW-1A	04/27/1993	865.94	867.74	826.94	-	834.74	856.44	-
MW-1B	04/28/1993	866.03	867.93	846.03	-	-	856.33	-
MW-1C	10/20/2003	863.44	866.25	829.44	-	844.44	844.07	844.02
MW-2	04/27/1993	795.32	797.62	781.82	-	-	-	-
MW-3A	04/27/1993	790.80	792.10	778.80	-	-	-	-
MW-3B	04/28/1993	789.31	790.61	764.31	-	-	-	-
MW-4A	08/28/1993	820.25	822.70	794.25	-	-	-	-
MW-4B	09/01/1993	822.91	825.41	785.91	-	-	-	-
MW-5	08/27/1993	838.35	840.85	807.35	-	-	-	-
MW-6A	08/28/1993	791.50	793.00	768.00	-	-	-	-
MW-6B	09/01/1993	796.37	798.87	759.37	-	-	-	-
MW-7	08/30/1993	796.23	798.23	773.23	-	-	-	-
MW-8	08/31/1993	794.90	797.40	767.90	-	-	-	-
MW-9	09/01/1993	841.61	844.11	806.61	-	-	-	-
MW-9R	06/26/2000	804.04	807.19	784.04	-	794.44	-	799.39
MW-9RR	11/28/2001	803.56	806.16	781.56	-	791.56	788.23	787.65
MW-10	09/01/1993	826.13	828.63	796.13	-	-	-	-
MW-10R	06/26/2000	817.14	820.74	792.14	-	800.34	-	801.86
MW-11	02/16/1998	819.05	821.46	-	-	-	-	-
MW-12	03/04/1998	802.63	805.64	-	-	-	-	-
MW-13A	03/02/1998	815.44	818.41	-	-	-	-	-
MW-13B	03/02/1998	815.44	818.10	-	-	-	-	-
MW-14A	03/03/1998	815.68	818.98	-	-	-	-	-
MW-14B	03/03/1998	815.68	818.54	-	-	-	-	-
MW-15	-	836.16	838.99	-	-	-	-	-
MW-16	06/27/2000	791.33	794.14	771.33	-	-	-	-
MW-17	05/09/2002	850.94	854.35	805.94	-	-	-	-
MW-18	06/02/2000	796.09	800.72	776.09	-	-	-	-
MW-19D	05/09/2002	793.26	795.81	734.26	-	-	-	-
MW-19S	05/30/2000	792.32	793.59	772.32	-	-	-	-
MW-20	06/02/2000	793.38	795.93	773.38	-	-	-	-
MW-21D	06/17/2000	819.25	822.76	681.00	-	-	-	-
MW-21S	06/02/2000	821.03	823.97	780.03	-	-	-	-
P-4	11/04/1998	837.26	839.55	812.26	-	-	-	-
P-9S	01/26/2000	823.26	826.19	784.26	-	-	-	-
P2-1D	12/11/1996	855.85	860.48	809.35	-	-	-	-
P2-1S	12/11/1996	855.85	860.48	827.85	-	-	-	-
P2-10D	12/10/1996	807.80	812.37	752.80	-	-	-	-
P2-10S	12/10/1996	807.80	812.37	771.80	-	-	-	-
P2-19	10/09/1997	812.07	814.30	744.57	-	-	-	-
PZ-1D	03/04/1998	871.38	874.30	798.38	-	-	-	-
PZ-1S	03/04/1998	871.38	873.42	831.38	-	-	-	-
NC-142		835.00	836.00		-	-	-	-

Table 1. Groundwater elevation summary (*Continued from previous page*)

	7 Days After 10/28/1993	09/16/1994	09/19/1994	09/20/1994	03/06/1995	03/07/1995	12/20/1995
CD-1	-	-	-	-	-	-	-
CD-2	-	-	-	-	-	-	-
CD-3	-	-	-	-	-	-	-
CD-4	-	-	-	-	-	-	-
CD-5	-	-	-	-	-	-	-
CD-6	-	-	-	-	-	-	-
CD-7	-	-	-	-	-	-	-
CD-8D	-	-	-	-	-	-	-
CD-8M	-	-	-	-	-	-	-
CD-8S	-	-	-	-	-	-	-
DP-1	-	-	-	-	-	-	-
DP-2	-	-	-	-	-	-	-
MW-1A	-	852.23	-	-	852.16	-	852.49	850.27
MW-1B	-	852.62	-	-	852.56	-	865.58	860.34
MW-1C	-	-	-	-	-	-	-	-
MW-2	-	789.20	-	-	791.53	-	793.32	789.41
MW-3A	-	783.15	-	-	785.93	-	786.05	783.89
MW-3B	-	782.28	-	-	784.90	-	785.41	783.31
MW-4A	-	803.16	-	-	803.04	803.37	-	799.93
MW-4B	-	803.42	-	-	803.22	803.31	-	799.99
MW-5	-	818.39	-	815.89	-	-	814.33	800.97
MW-6A	-	774.90	777.00	-	-	777.70	-	-
MW-6B	-	777.56	-	780.76	-	781.58	-	-
MW-7	-	788.67	790.34	-	-	791.55	-	789.52
MW-8	-	778.49	780.90	-	-	781.20	-	-
MW-9	-	814.11	-	-	817.62	-	817.51	814.31
MW-9R	-	-	-	-	-	-	-	-
MW-9RR	-	-	-	-	-	-	-	-
MW-10	-	804.65	-	-	808.64	-	809.93	806.70
MW-10R	-	-	-	-	-	-	-	-
MW-11	-	-	-	-	-	-	-	-
MW-12	-	-	-	-	-	-	-	-
MW-13A	-	-	-	-	-	-	-	-
MW-13B	-	-	-	-	-	-	-	-
MW-14A	-	-	-	-	-	-	-	-
MW-14B	-	-	-	-	-	-	-	-
MW-15	-	-	-	-	-	-	-	-
MW-16	-	-	-	-	-	-	-	-
MW-17	-	-	-	-	-	-	-	-
MW-18	-	-	-	-	-	-	-	-
MW-19D	-	-	-	-	-	-	-	-
MW-19S	-	-	-	-	-	-	-	-
MW-20	-	-	-	-	-	-	-	-
MW-21D	-	-	-	-	-	-	-	-
MW-21S	-	-	-	-	-	-	-	-
P-4	-	-	-	-	-	-	-	-
P-9S	-	-	-	-	-	-	-	-
P2-1D	-	-	-	-	-	-	-	-
P2-1S	-	-	-	-	-	-	-	-
P2-10D	-	-	-	-	-	-	-	-
P2-10S	-	-	-	-	-	-	-	-
P2-19	-	-	-	-	-	-	-	-
PZ-1D	-	-	-	-	-	-	-	-
PZ-1S	-	-	-	-	-	-	-	-
NC-142	-	820.07	820.85	820.81	820.77	821.89	821.94	821.8

Table 1. Groundwater elevation summary *(Continued from previous page)*

	12/21/1995	07/10/1996	12/05/1996	12/06/1996	07/01/1997	07/02/1997	12/10/1997	04/02/1998
CD-1	-	-	-	-	-	-	-	-
CD-2	-	-	-	-	-	-	-	-
CD-3	-	-	-	-	-	-	-	-
CD-4	-	-	-	-	-	-	-	-
CD-5	-	-	-	-	-	-	-	-
CD-6	-	-	-	-	-	-	-	-
CD-7	-	-	-	-	-	-	-	-
CD-8D	-	-	-	-	-	-	-	-
CD-8M	-	-	-	-	-	-	-	-
CD-8S	-	-	-	-	-	-	-	-
DP-1	-	-	-	-	-	-	-	-
DP-2	-	-	-	-	-	-	-	-
MW-1A	-	850.17	-	849.85	849.23	-	848.41	-
MW-1B	-	850.63	-	865.43	849.73	-	848.96	-
MW-1C	-	-	-	-	-	-	-	-
MW-2	-	788.80	789.82	-	-	788.85	789.03	-
MW-3A	-	783.65	784.08	-	-	783.73	784.13	-
MW-3B	-	782.95	783.53	-	-	783.12	783.20	-
MW-4A	-	799.40	-	798.70	-	800.26	797.97	-
MW-4B	-	799.59	-	798.61	-	800.42	798.09	-
MW-5	-	811.55	-	810.89	-	812.60	810.47	-
MW-6A	775.82	774.80	775.65	-	775.80	-	775.26	-
MW-6B	778.24	777.50	778.47	-	778.42	-	777.78	-
MW-7	-	788.97	-	790.23	789.78	-	789.36	-
MW-8	778.48	778.20	-	778.73	-	778.64	778.44	-
MW-9	-	813.76	813.39	-	not measurec	-	812.79	-
MW-9R	-	-	-	-	-	-	-	-
MW-9RR	-	-	-	-	-	-	-	-
MW-10	-	805.97	805.63	-	not measurec	-	804.78	-
MW-10R	-	-	-	-	-	-	-	-
MW-11	-	-	-	-	-	-	-	814.03
MW-12	-	-	-	-	-	-	-	794.56
MW-13A	-	-	-	-	-	-	-	792.78
MW-13B	-	-	-	-	-	-	-	792.81
MW-14A	-	-	-	-	-	-	-	791.03
MW-14B	-	-	-	-	-	-	-	790.78
MW-15	-	-	-	-	-	-	-	804.01
MW-16	-	-	-	-	-	-	-	-
MW-17	-	-	-	-	-	-	-	-
MW-18	-	-	-	-	-	-	-	-
MW-19D	-	-	-	-	-	-	-	-
MW-19S	-	-	-	-	-	-	-	-
MW-20	-	-	-	-	-	-	-	-
MW-21D	-	-	-	-	-	-	-	-
MW-21S	-	-	-	-	-	-	-	-
P-4	-	-	-	-	-	-	-	-
P-9S	-	-	-	-	-	-	-	-
P2-1D	-	-	-	-	-	-	-	-
P2-1S	-	-	-	-	-	-	-	-
P2-10D	-	-	-	-	-	-	-	-
P2-10S	-	-	-	-	-	-	-	-
P2-19	-	-	-	-	-	-	-	-
PZ-1D	-	-	-	-	-	-	-	840.72
PZ-1S	-	-	-	-	-	-	-	839.02
NC-142	821.78	821.22	821.32	821.37	821.75	821.75	819.96	822.48

Table 1. Groundwater elevation summary

(*Continued from previous page*)

	05/19/1998	06/30/1998	07/01/1998	10/26/1998	12/16/1998	12/17/1998	07/07/1999	07/08/1999
CD-1	-	-	-	-	-	-	-	-
CD-2	-	-	-	-	-	-	-	-
CD-3	-	-	-	-	-	-	-	-
CD-4	-	-	-	-	-	-	-	-
CD-5	-	-	-	-	-	-	-	-
CD-6	-	-	-	-	-	-	-	-
CD-7	-	-	-	-	-	-	-	-
CD-8D	-	-	-	-	-	-	-	-
CD-8M	-	-	-	-	-	-	-	-
CD-8S	-	-	-	-	-	-	-	-
DP-1	-	-	-	-	-	-	-	-
DP-2	-	-	-	-	-	-	-	-
MW-1A	-	849.26	-	847.59	-	847.12	846.10	-
MW-1B	-	849.52	-	848.13	-	861.03	846.59	-
MW-1C	-	-	-	-	-	-	-	-
MW-2	-	788.74	-	-	-	788.77	-	-
MW-3A	-	783.83	-	-	-	783.94	-	-
MW-3B	-	783.04	-	-	-	783.08	-	-
MW-4A	-	800.23	-	-	-	797.07	-	796.87
MW-4B	-	800.39	-	-	-	797.24	-	796.87
MW-5	-	-	-	-	-	-	-	-
MW-6A	-	774.40	-	-	774.56	-	-	-
MW-6B	-	778.22	-	-	777.02	-	-	-
MW-7	-	789.07	-	-	789.11	-	-	-
MW-8	-	-	778.47	-	777.98	-	-	-
MW-9	-	-	813.62	-	-	811.93	-	811.59
MW-9R	-	-	-	-	-	-	-	-
MW-9RR	-	-	-	-	-	-	-	-
MW-10	-	-	805.97	-	803.38	-	-	803.35
MW-10R	-	-	-	-	-	-	-	-
MW-11	813.24	-	811.41	809.61	-	-	-	809.37
MW-12	793.54	792.17	-	788.80	-	-	-	788.21
MW-13A	790.43	-	788.77	785.09	-	-	-	783.37
MW-13B	790.37	788.70	-	785.14	-	-	-	782.66
MW-14A	789.23	787.82	-	784.44	-	-	-	782.63
MW-14B	788.98	787.58	-	784.18	-	-	-	781.93
MW-15	803.94	803.61	-	800.67	-	-	-	797.81
MW-16	-	-	-	-	-	-	-	-
MW-17	-	-	-	-	-	-	-	-
MW-18	-	-	-	-	-	-	-	-
MW-19D	-	-	-	-	-	-	-	-
MW-19S	-	-	-	-	-	-	-	-
MW-20	-	-	-	-	-	-	-	-
MW-21D	-	-	-	-	-	-	-	-
MW-21S	-	-	-	-	-	-	-	-
P-4	-	-	-	-	-	-	-	-
P-9S	-	-	-	-	-	-	-	-
P2-1D	-	-	-	-	-	-	-	-
P2-1S	-	-	-	-	-	-	-	-
P2-10D	-	-	-	-	-	-	-	-
P2-10S	-	-	-	-	-	-	-	-
P2-19	-	-	-	-	-	-	-	-
PZ-1D	-	-	-	-	-	-	853.14	-
PZ-1S	-	-	-	-	-	-	850.18	-
NC-142	822.69	821.38	821.36	818.53	818.31	818.31	818.32	818.31

Table 1. Groundwater elevation summary

(*Continued from previous page*)

	07/09/1999	12/22/1999	12/23/1999	07/12/2000	07/13/2000	01/15/2001	01/16/2001	07/17/2001
CD-1	-	-	-	-	-	-	-	-
CD-2	-	-	-	-	-	-	-	-
CD-3	-	-	-	-	-	-	-	-
CD-4	-	-	-	-	-	-	-	-
CD-5	-	-	-	-	-	-	-	-
CD-6	-	-	-	-	-	-	-	-
CD-7	-	-	-	-	-	-	-	-
CD-8D	-	-	-	-	-	-	-	-
CD-8M	-	-	-	-	-	-	-	-
CD-8S	-	-	-	-	-	-	-	-
DP-1	-	-	-	-	-	-	-	-
DP-2	-	-	-	-	-	-	-	-
MW-1A	-	844.75	-	844.55	-	843.26	-	843.32
MW-1B	-	dry	-	dry	-	dry	-	dry
MW-1C	-	-	-	-	-	-	-	-
MW-2	788.49	789.09	-	788.29	-	-	788.50	-
MW-3A	783.69	783.97	-	783.60	-	-	783.80	-
MW-3B	782.95	783.16	-	782.86	-	-	782.88	-
MW-4A	-	-	795.50	-	796.20	-	794.43	-
MW-4B	-	-	795.44	-	796.07	-	794.26	-
MW-5	-	-	-	-	-	-	-	-
MW-6A	774.06	-	774.50	-	773.46	773.75	-	773.84
MW-6B	776.73	776.90	-	-	776.24	776.16	-	776.47
MW-7	788.79	-	790.05	-	788.56	787.01	-	-
MW-8	778.06	778.16	-	777.76	-	777.63	-	777.99
MW-9	-	810.61	-	-	-	-	-	-
MW-9R	-	-	-	796.25	-	794.84	-	795.85
MW-9RR	-	-	-	-	-	-	-	-
MW-10	-	802.75	-	-	-	-	-	-
MW-10R	-	-	-	797.14	-	797.09	-	797.09
MW-11	-	-	809.57	-	808.11	-	808.72	808.64
MW-12	-	-	787.64	-	786.72	-	786.18	-
MW-13A	-	-	782.04	-	781.81	-	780.16	780.16
MW-13B	-	-	781.45	-	781.60	-	780.26	780.27
MW-14A	-	-	780.81	-	780.91	-	779.60	-
MW-14B	-	-	780.59	-	780.77	-	779.19	-
MW-15	-	-	796.43	-	795.93	-	-	-
MW-16	-	-	-	782.53	-	782.53	-	782.51
MW-17	-	-	-	-	-	-	-	-
MW-18	-	-	-	-	-	-	-	-
MW-19D	-	-	-	-	-	-	-	-
MW-19S	-	-	-	-	-	-	-	-
MW-20	-	-	-	-	-	-	-	-
MW-21D	-	-	-	-	-	-	-	-
MW-21S	-	-	-	-	-	-	-	-
P-4	-	-	-	-	-	-	-	-
P-9S	-	-	-	-	-	-	-	-
P2-1D	-	-	-	-	-	-	-	-
P2-1S	-	-	-	-	-	836.41	-	-
P2-10D	-	-	-	-	-	-	777.53	-
P2-10S	-	-	-	-	773.17	-	779.27	-
P2-19	-	-	-	-	-	-	779.48	-
PZ-1D	-	851.99	-	-	835.11	834.17	-	-
PZ-1S	-	849.05	-	-	-	dry	-	-
NC-142	818.31	817.14	817.15	816.76	816.76	815.27	815.26	815.22

Table 1. Groundwater elevation summary

(*Continued from previous page*)

	07/18/2001	12/26/2001	01/03/2002	01/04/2002	02/04/2002	03/14/2002	03/15/2002	04/25/2002
CD-1	-	846.85	-	-	847.14	847.04	847.05	846.80
CD-2	-	828.75	-	-	828.53	828.47	828.48	828.34
CD-3	-	798.63	-	-	799.21	799.50	-	799.65
CD-4	-	843.96	-	-	843.86	843.76	843.76	843.69
CD-5	-	821.90	-	-	822.38	822.58	-	822.76
CD-6	-	807.59	-	-	810.60	809.30	-	808.75
CD-7	-	817.49	-	-	818.27	818.20	818.20	817.82
CD-8D	-	-	-	-	-	-	-	-
CD-8M	-	-	-	-	-	-	-	-
CD-8S	-	-	-	-	-	-	-	-
DP-1	-	-	-	-	-	-	-	-
DP-2	-	-	-	-	-	-	-	-
MW-1A	-	-	841.97	-	-	-	-	-
MW-1B	-	-	dry	-	-	-	-	-
MW-1C	-	-	-	-	-	-	-	-
MW-2	788.48	-	788.49	-	-	-	-	-
MW-3A	783.58	-	783.64	-	-	-	-	-
MW-3B	782.99	-	782.87	-	-	-	-	-
MW-4A	794.71	-	-	dry	-	-	-	-
MW-4B	794.42	-	-	793.27	-	-	-	-
MW-5	-	-	-	-	-	-	-	-
MW-6A	-	-	-	773.51	-	-	-	-
MW-6B	-	-	-	775.90	-	-	-	-
MW-7	789.29	-	-	787.98	-	-	-	-
MW-8	-	-	-	777.59	-	-	-	-
MW-9	-	-	-	-	-	-	-	-
MW-9R	-	-	793.80	-	-	-	-	-
MW-9RR	-	-	787.58	-	-	-	-	-
MW-10	-	-	-	-	-	-	-	-
MW-10R	-	-	796.30	-	-	-	-	-
MW-11	-	-	-	807.15	-	-	-	-
MW-12	785.81	-	784.94	-	-	-	-	-
MW-13A	-	-	779.03	-	-	-	-	-
MW-13B	-	-	779.12	-	-	-	-	-
MW-14A	799.85	-	dry	-	-	-	-	-
MW-14B	779.18	-	778.07	-	-	-	-	-
MW-15	dry	-	dry	-	-	-	-	-
MW-16	-	-	782.45	-	-	-	-	-
MW-17	-	-	-	-	-	-	-	-
MW-18	-	-	-	-	-	-	-	-
MW-19D	-	-	-	-	-	-	-	-
MW-19S	-	-	-	-	-	-	-	-
MW-20	-	-	-	-	-	-	-	-
MW-21D	-	-	-	-	-	-	-	-
MW-21S	-	-	-	-	-	-	-	-
P-4	-	-	-	-	-	-	-	-
P-9S	-	-	-	-	-	-	-	-
P2-1D	834.16	-	-	833.50	-	-	-	-
P2-1S	836.23	-	-	835.54	-	-	-	-
P2-10D	778.24	-	776.68	-	-	-	-	-
P2-10S	779.99	-	778.41	-	-	-	-	-
P2-19	779.47	-	778.39	-	-	-	-	-
PZ-1D	833.91	-	-	832.23	-	-	-	-
PZ-1S	832.32	-	-	831.50	-	-	-	-
NC-142	815.21	813.68	813.6	813.6	814.59	814.81	814.81	814.74

Table 1. Groundwater elevation summary

(Continued from previous page)

	05/30/2002	07/16/2002	07/17/2002	01/21/2003	01/22/2003	01/23/2003	01/24/2003	07/15/2003
CD-1	846.54	-	-	-	-	-	-	-
CD-2	828.21	-	827.09	-	-	-	-	-
CD-3	799.23	-	-	801.26	-	-	801.26	-
CD-4	843.56	-	-	-	-	-	-	-
CD-5	822.53	-	-	-	-	-	-	-
CD-6	808.83	-	-	-	-	-	-	-
CD-7	818.38	-	-	818.92	-	-	818.92	-
CD-8D	-	-	-	-	-	-	-	-
CD-8M	-	-	-	-	-	-	-	-
CD-8S	-	-	-	-	-	-	-	-
DP-1	-	-	-	-	-	-	-	-
DP-2	-	-	-	-	-	-	-	-
MW-1A	-	841.81	-	842.90	-	-	-	-
MW-1B	-	dry	-	dry	-	-	-	-
MW-1C	-	-	-	-	-	-	-	-
MW-2	-	-	788.25	-	788.88	-	-	-
MW-3A	-	-	783.45	-	783.72	-	-	-
MW-3B	-	-	782.61	-	783.14	-	-	-
MW-4A	-	dry	-	dry	-	-	-	800.21
MW-4B	-	825.41	-	794.20	-	-	-	799.94
MW-5	-	-	-	-	-	-	-	-
MW-6A	-	-	772.97	775.41	-	-	-	776.39
MW-6B	-	-	775.63	778.30	-	-	-	779.32
MW-7	-	-	783.63	790.08	-	-	-	-
MW-8	-	-	-	-	778.61	-	-	-
MW-9	-	-	-	-	-	-	-	-
MW-9R	-	793.09	-	794.97	-	-	-	796.24
MW-9RR	-	787.51	-	788.33	-	-	-	788.61
MW-10	-	-	-	-	-	-	-	-
MW-10R	-	795.70	-	800.38	-	-	-	798.59
MW-11	-	-	804.91	-	808.87	-	-	-
MW-12	-	-	dry	788.29	-	-	-	-
MW-13A	-	779.38	-	780.64	-	-	-	785.26
MW-13B	-	778.65	-	780.73	-	-	-	785.42
MW-14A	-	dry	-	dry	-	-	-	785.00
MW-14B	-	777.99	-	779.59	-	-	-	784.18
MW-15	-	dry	-	dry	-	-	-	798.30
MW-16	-	780.64	-	783.02	-	-	-	-
MW-17	-	-	-	-	817.22	-	-	-
MW-18	-	-	-	-	-	791.81	-	-
MW-19D	-	-	-	-	787.51	-	-	-
MW-19S	-	-	-	-	787.26	-	-	-
MW-20	-	-	-	-	-	790.33	-	-
MW-21D	-	-	-	-	791.79	-	-	-
MW-21S	-	-	-	-	790.30	-	-	-
P-4	-	-	-	-	819.45	-	-	-
P-9S	-	-	-	-	801.90	-	-	-
P2-1D	-	-	832.99	-	-	-	-	-
P2-1S	-	-	836.09	-	-	837.04	-	-
P2-10D	-	-	777.20	-	-	-	-	784.58
P2-10S	-	-	778.98	-	-	-	-	786.38
P2-19	-	778.30	-	-	-	-	-	-
PZ-1D	-	-	-	-	-	-	-	-
PZ-1S	-	-	831.22	-	-	-	-	-
NC-142	813.99	813.1	813.08	816.56	816.52	816.47	816.41	820.39

Table 1. Groundwater elevation summary

(*Continued from previous page*)

	07/16/2003	07/18/2003	10/22/2003	12/11/2003	12/17/2003	Observed High (H_{OH})	Observed Low (H_{OL})	Fluctuation
CD-1	-	-	852.65	-	852.17	852.65	846.54	6.11
CD-2	-	-	832.56	-	-	832.56	827.09	5.47
CD-3	-	-	800.15	-	800.71	801.26	798.63	2.63
CD-4	-	-	849.60	-	848.95	849.60	843.56	6.04
CD-5	-	-	826.19	-	827.56	827.56	821.90	5.66
CD-6	-	-	812.31	-	813.12	813.12	807.59	5.53
CD-7	-	-	818.58	-	819.46	819.46	817.49	1.97
CD-8D	-	-	809.55	810.00	810.31	810.31	809.55	0.76
CD-8M	-	-	807.30	808.62	808.93	808.93	807.30	1.63
CD-8S	-	-	809.16	809.64	809.89	809.89	809.16	0.73
DP-1	-	-	806.59	807.15	807.09	807.15	806.59	0.56
DP-2	-	-	806.14	806.22	806.34	806.34	806.14	0.20
MW-1A	845.95	-	-	-	845.29	852.49	841.81	10.68
MW-1B	dry	-	-	-	859.83	865.58	846.59	18.99
MW-1C	-	-	-	-	843.90	843.90	843.90	0.00
MW-2	789.05	-	-	-	788.83	793.32	788.25	5.07
MW-3A	783.51	-	-	-	-	786.05	783.15	2.90
MW-3B	783.01	-	-	-	783.03	785.41	782.28	3.13
MW-4A	-	-	-	-	-	803.37	794.43	8.94
MW-4B	-	-	-	-	-	825.41	793.27	32.14
MW-5	-	-	-	-	-	818.39	800.97	17.42
MW-6A	-	-	-	-	-	777.70	772.97	4.73
MW-6B	-	-	-	-	-	781.58	775.63	5.95
MW-7	790.35	-	-	-	-	791.55	783.63	7.92
MW-8	779.10	-	-	-	-	781.20	777.59	3.61
MW-9	-	-	-	-	-	817.62	810.61	7.01
MW-9R	-	-	-	-	795.55	796.25	793.09	3.16
MW-9RR	-	-	-	-	789.06	789.06	787.51	1.55
MW-10	-	-	-	-	-	809.93	802.75	7.18
MW-10R	-	-	-	-	798.27	800.38	795.70	4.68
MW-11	810.31	-	-	-	-	814.03	804.91	9.12
MW-12	790.84	-	-	-	-	794.56	784.94	9.62
MW-13A	-	-	-	-	-	792.78	779.03	13.75
MW-13B	-	-	-	-	-	792.81	778.65	14.16
MW-14A	-	-	-	-	-	799.85	779.60	20.25
MW-14B	-	-	-	-	-	790.78	777.99	12.79
MW-15	-	-	-	-	-	804.01	795.93	8.08
MW-16	783.22	-	-	-	782.82	783.22	780.64	2.58
MW-17	821.22	-	-	-	-	821.22	817.22	4.00
MW-18	792.52	-	-	-	-	792.52	791.81	0.71
MW-19D	-	787.69	-	-	-	787.69	787.51	0.18
MW-19S	-	787.38	-	-	-	787.38	787.26	0.12
MW-20	790.70	-	-	-	-	790.70	790.33	0.37
MW-21D	-	792.78	-	-	-	792.78	791.79	0.99
MW-21S	-	791.83	-	-	-	791.83	790.30	1.53
P-4	-	-	-	-	-	819.45	819.45	0.00
P-9S	-	-	-	-	-	801.90	801.90	0.00
P2-1D	-	-	-	-	836.33	836.33	832.99	3.34
P2-1S	-	-	-	-	838.33	838.33	835.54	2.79
P2-10D	-	-	-	-	-	784.58	776.68	7.90
P2-10S	-	-	-	-	-	786.38	773.17	13.21
P2-19	-	-	-	-	-	779.48	778.30	1.18
PZ-1D	-	-	-	-	835.61	853.14	832.23	20.91
PZ-1S	-	-	-	-	833.69	850.18	831.22	18.96
NC-142	820.37	820.39	819.64	819.28	819.62	822.69	813.08	9.61

Table 1. Groundwater elevation summary

(*Continued from previous page*)

	Seasonal High (H_{SH})		
	Calculated	**Interpolated**	**H_{SH} - H_{OH}**
CD-1	856.43	-	3.78
CD-2	835.13	-	2.57
CD-3	-	812.62	11.36
CD-4	853.50	-	3.90
CD-5	830.61	-	3.05
CD-6	816.85	-	3.73
CD-7	820.63	-	1.17
CD-8D	-	-	-
CD-8M	-	-	-
CD-8S	-	813.55	3.66
DP-1	-	-	-
DP-2	-	-	-
MW-1A	858.14	-	5.65
MW-1B	-	-	-
MW-1C	-	-	-
MW-2	792.85	-	-0.47
MW-3A	-	-	-
MW-3B	-	-	-
MW-4A	809.50	-	6.13
MW-4B	-	-	-
MW-5	-	-	-
MW-6A	778.94	-	1.24
MW-6B	782.76	-	1.18
MW-7	794.29	-	2.74
MW-8	781.75	-	0.55
MW-9	824.01	-	6.39
MW-9R	799.04	-	2.79
MW-9RR	790.07	-	1.01
MW-10	816.24	-	6.31
MW-10R	-	-	-
MW-11	816.25	-	2.22
MW-12	797.61	-	3.05
MW-13A	795.97	-	3.19
MW-13B	796.02	-	3.21
MW-14A	-	-	-
MW-14B	794.11	-	3.33
MW-15	812.56	-	8.55
MW-16	785.18	-	1.96
MW-17	-	-	-
MW-18	-	-	-
MW-19D	-	-	-
MW-19S	-	-	-
MW-20	-	-	-
MW-21D	-	-	-
MW-21S	-	-	-
P-4	-	-	-
P-9S	-	-	-
P2-1D	837.99	-	1.66
P2-1S	840.04	-	1.71
P2-10D	788.35	-	3.77
P2-10S	-	-	-
P2-19	783.26	-	3.78
PZ-1D	-	-	-
PZ-1S	-	-	-
NC-142	825.34		2.65

NOTE

1. All figures in this table, except for the dates, are elevations expressed in units of feet above mean sea level.
2. Estimated seasonal high elevations are determined by method described in Section 4.5.4.
3. The *interpolated* seasonal high elevations are elevations calculated triangularly from the *estimated* seasonal high elevations of the closest neighboring nodes. The method applied to calculate the estimated seasonal highs could not be used for several of the piezometer locations due to the low probability value (Section 4.5.2) associated with their correlation coefficient (Section 4.5.1) with NC-142.

Table 2. Summary of laboratory analyses of soil samples

Boring No.	Sample Depth (ft)	Unit Dry Weight (pcf)	Specific Gravity	Moisture Content (%)	Atterberg Limit (%)			USCS Symbol	Permeability (cm/sec)	Porosity (%)	Effective Porosity (%)
					Liquid Limit	Plastic Limit	Plasticity				
CD-3	3.0 - 4.65	95.1	2.72	18.9	41	23	18	CL	6.70E-05	44	7
CD-5	17.0 - 18.85	80.1	2.73	26.5	45	37	8	ML	3.60E-05	53	18.4
CD-6	20.0 - 21.8	87.4	2.76	34.1	43	30	13	SM	3.60E-07	49	16.2
CD-7	7.0 - 9.15	84.2	2.79	31.0		Non-Plastic		ML	7.80E-05	52	22.7

NOTE

1. Figures presented in the above table are excerpted from Table C-1, except for the effective porosities which are taken from Table C-2.

Table 3. Hydrogeologic properties summary

Soil Texture	Hydraulic Conductivity (cm/sec)	Total Porosity (%)	Effective Porosity (%)
Sand-silt	$(2.63 \pm 0.46) \times 10^{-4}$	51 ± 1	19 ± 2
Clay	3.35×10^{-5}	44	7

NOTE

1. Aquifer materials are divided into "sand-silt" group and "clay" group, the latter of which contains noticeable amount of clay. The majority of the aquifer material consists of soils in the sand-silt group, while clay-rich soils occur only intermittently.
2. Figures for the sand-silt group take the form of *arithmetic average* $\pm$ *standard error* as multiple samples were available to derive the averages. Figures for the clay group, on the other hand, do not take this "average $\pm$ standard error" notation since it is represented only by one sample.
3. Figures for the hydraulic conductivity are excerpted from Table B-2, while figures for the total and effective porosities are from Table C-4.

Table 4. Proposed monitoring well specifics

Well	Elevation (feet)			Depth below Ground (feet)			
	Ground Surface	Estimated Seasonal High	Estimated Top of Rock	Estimated Seasonal High	Estimated Top of Rock	Top of Screen	Completion Depth
MW-22	829.31	812.62	N/A	16.69	N/A	22.00	37.00
MW-23	817.12	813.12	N/A	4.00	N/A	8.00	23.00
MW-24S	816.40	809.89	N/A	6.51	N/A	6.00	16.00
MW-24D	816.35	-	N/A	-	N/A	28.00	38.00
MW-1C	863.44	858.14	N/A	5.30	N/A	19.00	34.00

NOTE

1. Specifications of MW-22, MW-23, and MW-24S/D are taken from CD-3, CD-6, and CD-8S/D, respectively.
2. No top-of-rock elevations are shown as no borings completed on site reached top of rock.

Table 5. Seasonal high estimation

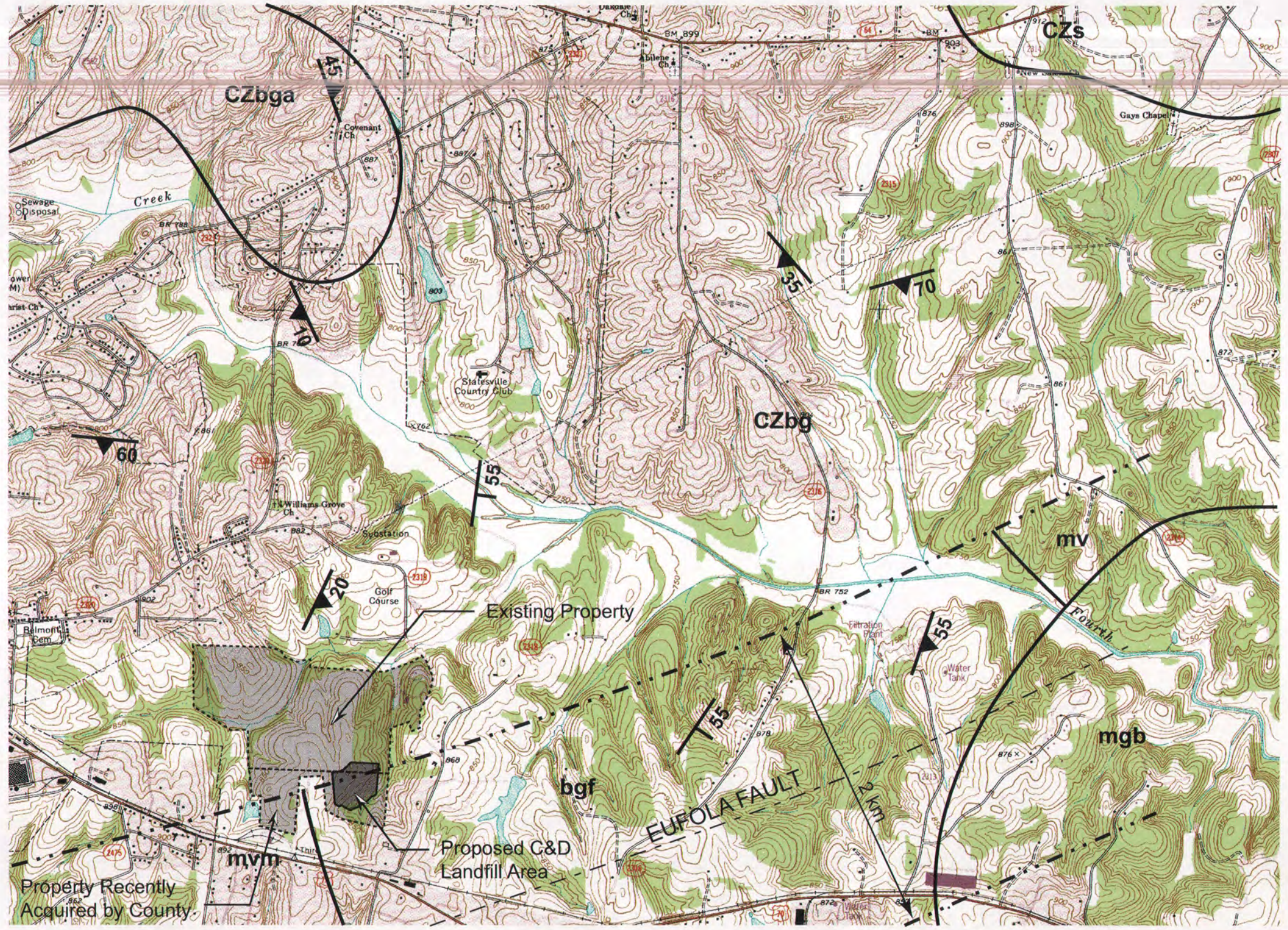
Well	N	R	R^2	P	b_{yx}	a	$Y_{predicted}$	S_y	S_{yx}	Y_{upper}
CD-1	8	0.989	0.979	**0.000**	1.04	-1.29	855.63	2.56	0.40	**856.43**
CD-2	8	0.967	0.935	**0.000**	0.77	198.48	834.25	1.60	0.44	**835.13**
CD-3	9	0.653	0.427	0.057	0.27	577.46	801.88	0.95	0.77	-
CD-4	8	0.981	0.963	**0.000**	1.03	2.52	852.43	2.56	0.53	**853.50**
CD-5	7	0.979	0.958	**0.000**	0.84	140.36	829.61	2.22	0.50	**830.61**
CD-6	7	0.925	0.856	**0.003**	0.72	220.72	815.17	2.03	0.84	**816.85**
CD-7	10	0.764	0.584	**0.010**	0.20	653.63	819.85	0.57	0.39	**820.63**
CD-8D	3	-	-	-	-	-	-	-	-	-
CD-8M	3	-	-	-	-	-	-	-	-	-
CD-8S	3	-	-	-	-	-	-	-	-	-
DP-1	3	-	-	-	-	-	-	-	-	-
DP-2	3	-	-	-	-	-	-	-	-	-
MW-1A	21	0.890	0.792	**0.000**	1.11	-58.62	854.91	3.45	1.61	**858.14**
MW-1B	13	0.312	0.097	0.300	1.56	-422.27	865.73	6.77	6.72	-
MW-1C	1	-	-	-	-	-	-	-	-	-
MW-2	20	0.511	0.261	**0.021**	0.22	612.32	790.72	1.20	1.06	**792.85**
MW-3A	19	0.385	0.148	0.103	0.10	702.96	784.67	0.75	0.71	-
MW-3B	20	0.431	0.186	0.058	0.11	694.66	783.98	0.71	0.66	-
MW-4A	16	0.832	0.693	**0.000**	1.04	-51.37	806.17	2.90	1.67	**809.50**
MW-4B	19	-0.061	0.004	0.803	-0.15	920.39	800.52	6.99	7.18	-
MW-5	8	-0.419	0.176	0.301	-2.82	3115.75	827.61	5.17	5.07	-
MW-6A	19	0.769	0.592	**0.000**	0.33	503.26	777.29	1.26	0.83	**778.94**
MW-6B	19	0.752	0.565	**0.000**	0.41	445.00	780.63	1.58	1.07	**782.76**
MW-7	19	0.678	0.460	**0.001**	0.38	474.84	791.79	1.65	1.25	**794.29**
MW-8	18	0.583	0.340	**0.011**	0.22	601.92	780.11	0.98	0.82	**781.75**
MW-9	11	0.742	0.551	**0.009**	1.01	-13.27	820.90	2.20	1.56	**824.01**
MW-9R	8	0.766	0.587	**0.027**	0.34	520.16	797.45	1.15	0.80	**799.04**
MW-9RR	5	0.942	0.888	**0.016**	0.19	634.23	789.55	0.67	0.26	**790.07**
MW-10	11	0.819	0.671	**0.002**	1.12	-113.51	813.56	2.22	1.34	**816.24**
MW-10R	8	0.648	0.420	0.082	0.37	498.68	800.15	1.47	1.21	-
MW-11	13	0.940	0.884	**0.000**	0.71	230.78	814.54	2.40	0.85	**816.25**
MW-12	12	0.978	0.956	**0.000**	1.02	-49.74	796.23	3.13	0.69	**797.61**
MW-13A	13	0.956	0.914	**0.000**	1.34	-312.15	793.24	4.46	1.36	**795.97**
MW-13B	13	0.957	0.915	**0.000**	1.36	-329.75	793.26	4.54	1.38	**796.02**
MW-14A	10	0.182	0.033	0.615	0.40	459.70	788.96	6.14	6.40	-
MW-14B	13	0.962	0.925	**0.000**	1.29	-272.39	791.66	4.28	1.22	**794.11**
MW-15	8	0.911	0.830	**0.002**	1.33	-289.32	809.51	3.42	1.52	**812.56**
MW-16	8	0.709	0.503	**0.049**	0.21	607.12	783.98	0.79	0.60	**785.18**
P2-1D	4	0.998	0.995	**0.002**	0.49	430.21	837.74	1.47	0.13	**837.99**
P2-1S	6	0.959	0.919	**0.003**	0.40	510.83	839.42	0.97	0.31	**840.04**
P2-10D	5	0.972	0.945	**0.006**	1.09	-115.33	786.58	3.25	0.89	**788.35**
P2-10S	6	0.522	0.273	0.288	0.84	96.04	785.28	4.22	4.02	-
P2-19	4	0.992	0.983	**0.008**	0.59	300.16	783.05	0.65	0.10	**783.26**
PZ-1D	8	0.369	0.136	0.369	1.09	-55.42	847.35	8.37	8.40	-
PZ-1S	7	0.421	0.177	0.347	1.03	-3.28	845.42	8.27	8.22	-

NOTE

1. Refer to Section 4.5.4 for the explanation of the calculation method and the definitions of the parameters presented in this table.
2. Correlation coefficients were not calculated for piezometers with insufficient number of measurements ($N < 4$).

Plate

Geologic Map - Iredell County Landfill, Statesville, North Carolina



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

LEGEND

- PROPOSED LANDFILL AREA
- PROPERTY OWNED BY IREDELL COUNTY
- CONTACT LINE
- EUFOLA FAULT LIMITS
- FAULT CENTER-LINE
- 10 — STRIKE AND DIP OF FOLIATION
- 55 — STRIKE AND DIP OF BEDDING

FORMATION LEGEND

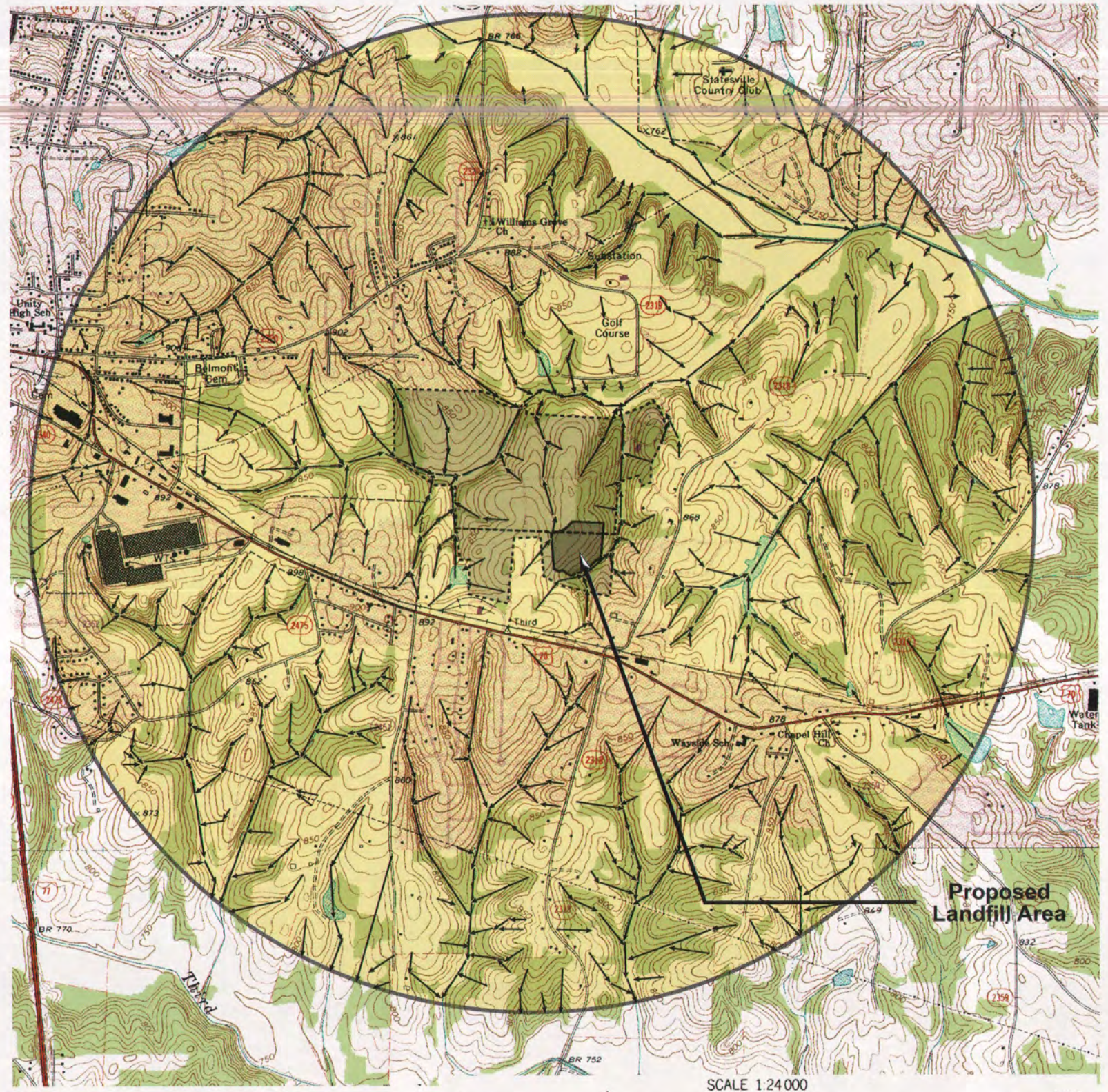
CZs	White mica schist
CZbg	Biotite gneiss
CZbga	Biotite gneiss and amphibolite
bgf	Fine-grained biotite gneiss
mgb	Metagabbro
mv	Metavolcanic rocks, undivided
mvm	Mafic and intermediate metavolcanic rocks

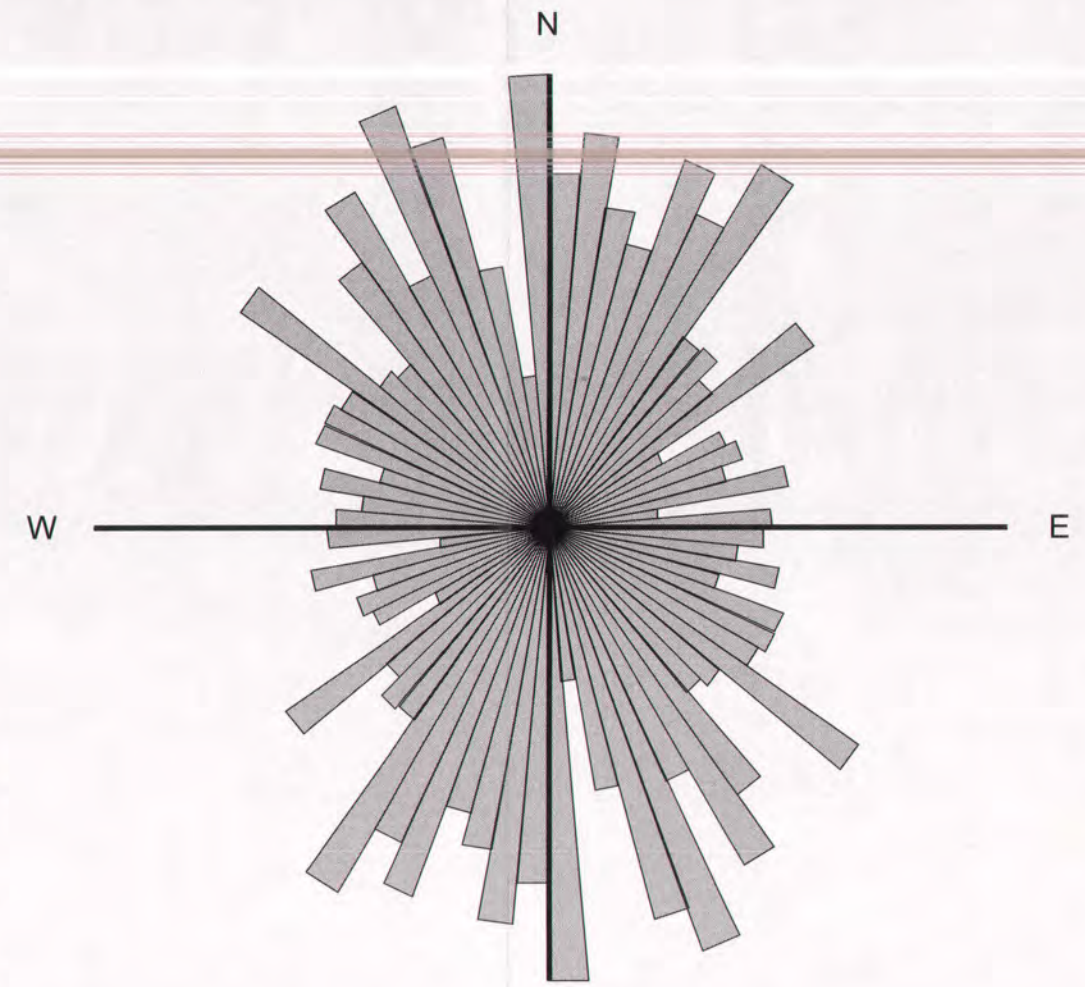
NOTE

1. This map was modified after Goldsmith et. al. (1988) and Michie (1985).
2. Contour interval: 10'.

PLATE 2

Stream Trace Analysis - Iredell County Landfill, Statesville, North Carolina





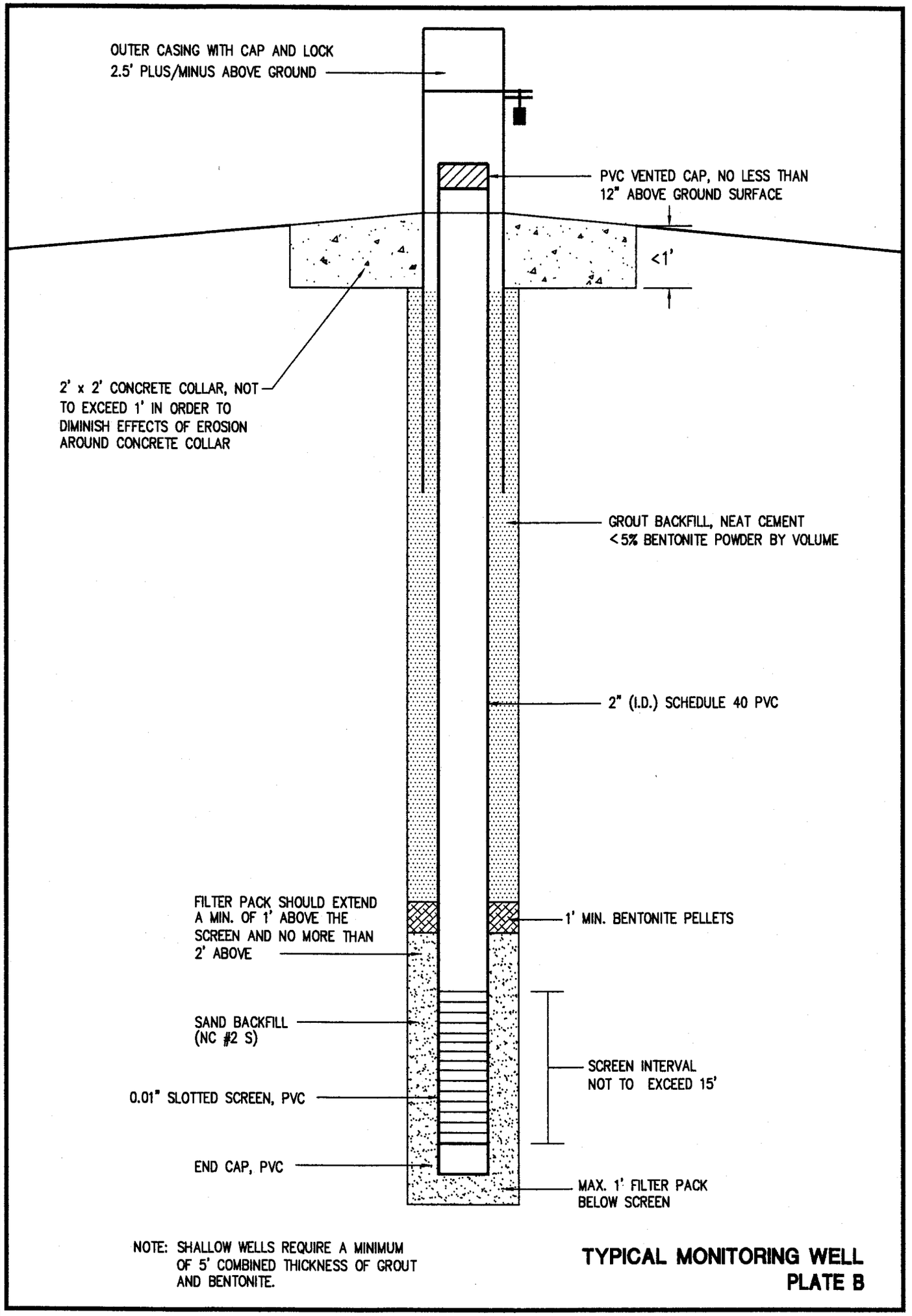
NOTE

1. Each pedal in the above Rose diagram represents a 5-degree slot.
2. The axial length of a pedal represents the total score of the pedal normalized to the highest score.

LEGEND

- PROPOSED LANDFILL AREA
- PROPERTY OWNED BY IREDELL COUNTY
- TRACE LINE

PLATE 3



NOTE: SHALLOW WELLS REQUIRE A MINIMUM OF 5' COMBINED THICKNESS OF GROUT AND BENTONITE.

TYPICAL MONITORING WELL
PLATE B

APPENDIX A

Figure A-1. Graphical boring log, CD-1

LOG OF BORING: CD-1

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/26/01
Date ended: 11/26/01
Completion depth: 32.7 ft
Stickup height: 2.30 ft

Surface elevation: 872.40 ft (MSL)
Top of pipe elevation: 874.70 ft (MSL)
Depth to water (TOB): 23.00 ft
Depth to water (24hrs): 25.27 ft

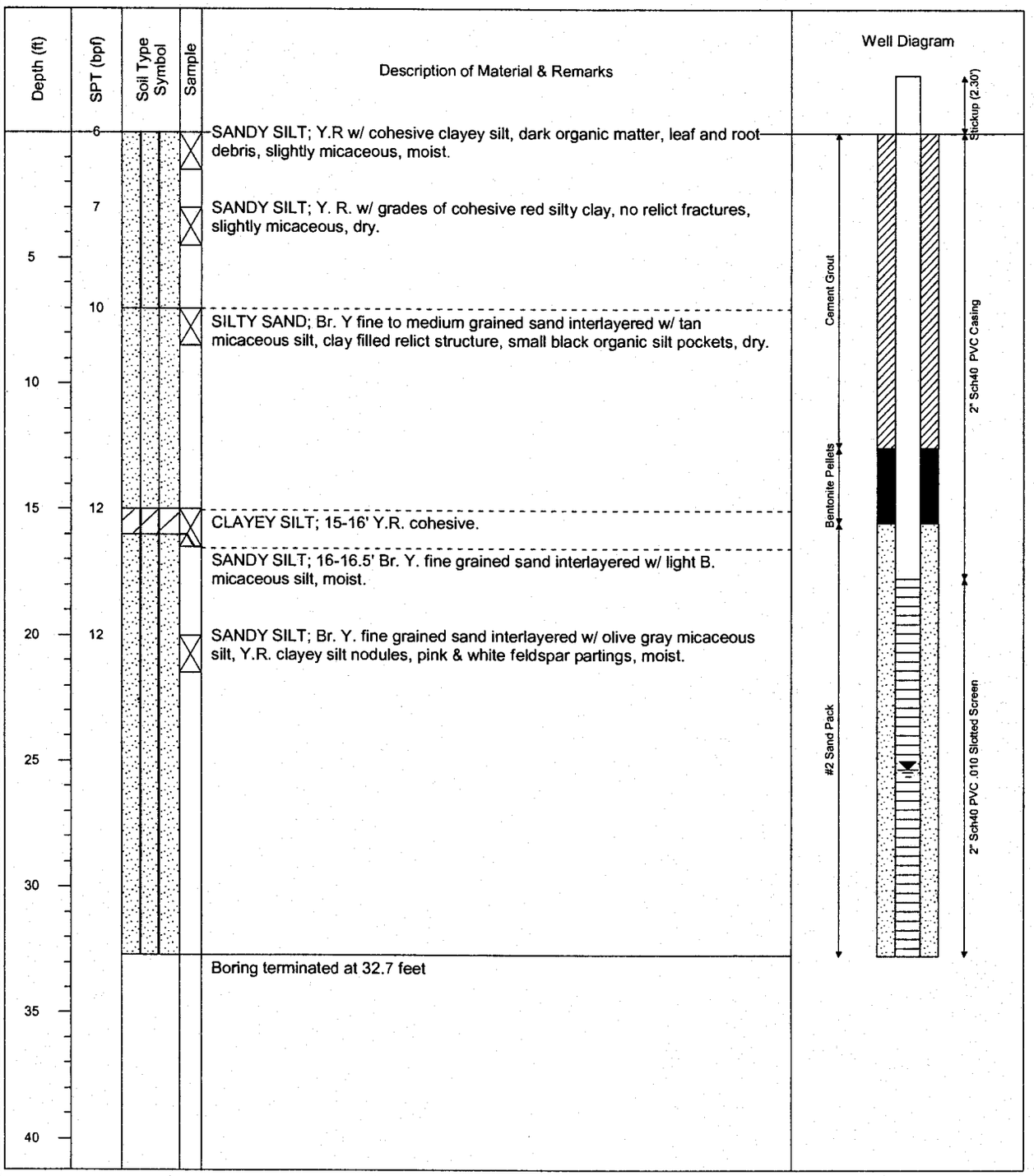


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Figure A-2. Graphical boring log, CD-2

LOG OF BORING: CD-2

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/26/01
Date ended: 11/27/01
Completion depth: 45.0 ft
Stickup height: 2.50 ft

Surface elevation: 865.46 ft (MSL)
Top of pipe elevation: 867.96 ft (MSL)
Depth to water (TOB): 38.00 ft
Depth to water (24hrs): 36.46 ft

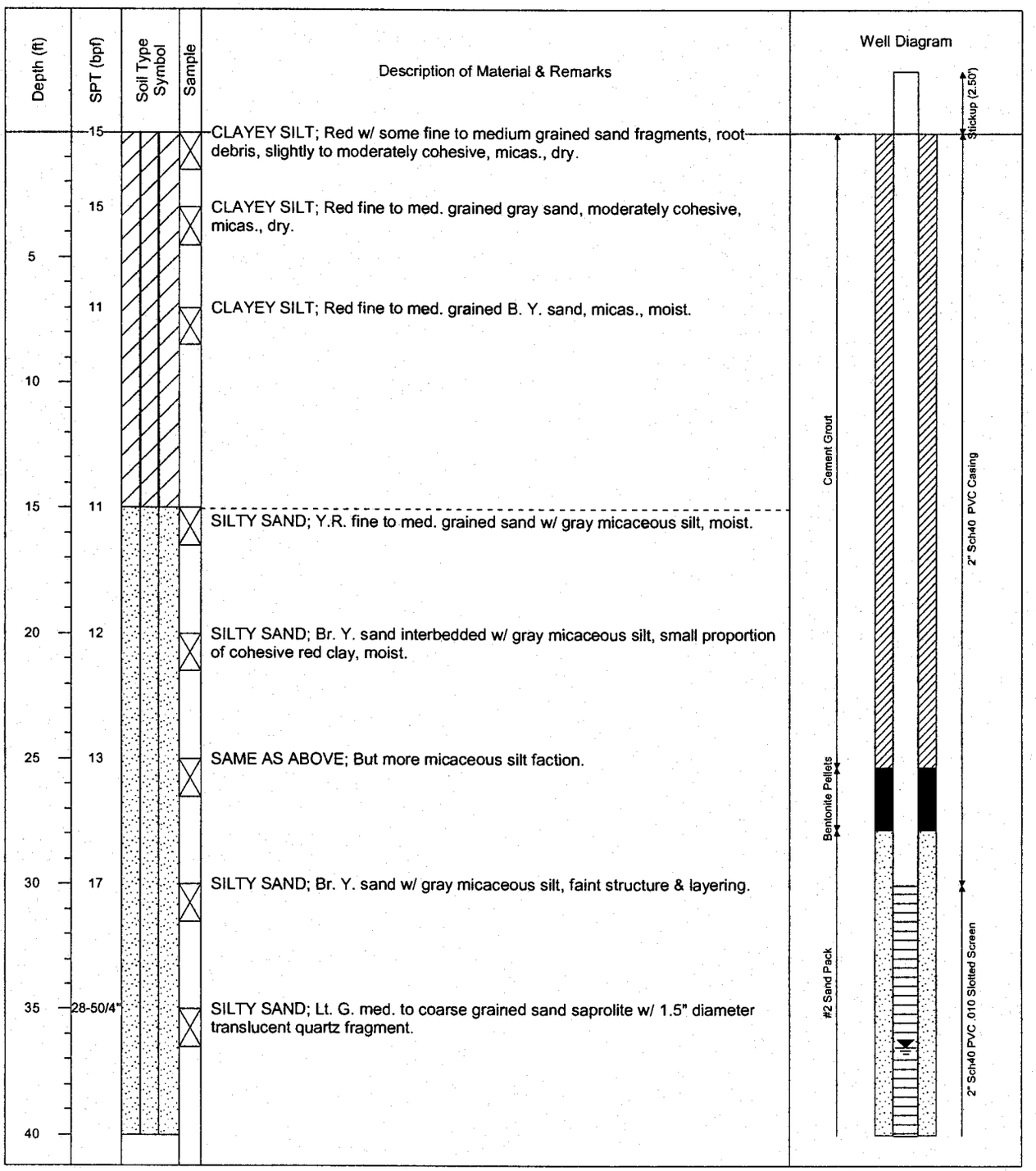

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Figure A-2. Graphical boring log, CD-2

(*Continued from previous page*)

LOG OF BORING: CD-2

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/26/01
Date ended: 11/27/01
Completion depth: 45.0 ft
Stickup height: 2.50 ft

Surface elevation: 865.46 ft (MSL)
Top of pipe elevation: 867.96 ft (MSL)
Depth to water (TOB): 38.00 ft
Depth to water (24hrs): 36.46 ft

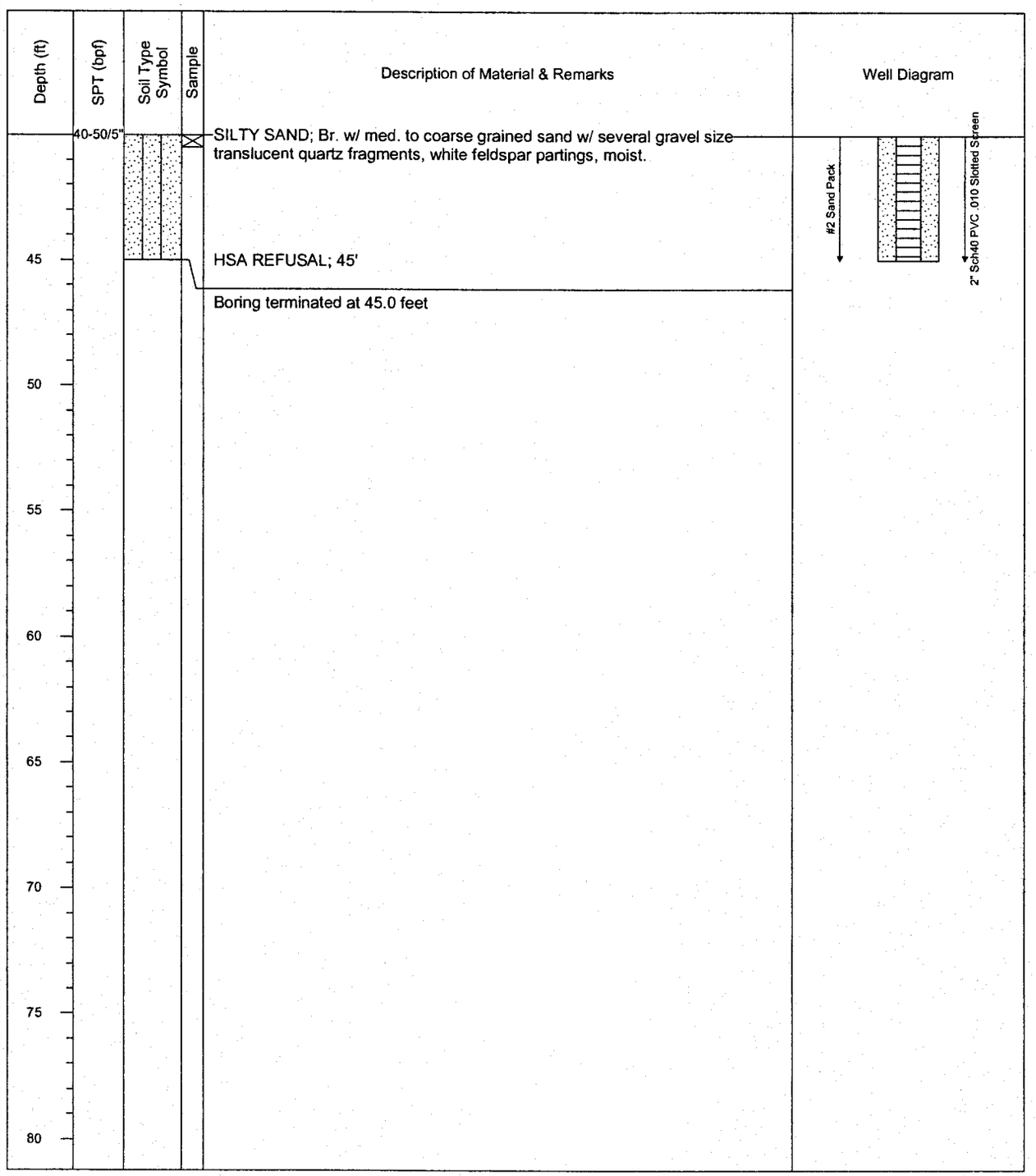

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Figure A-3. Graphical boring log, CD-3

LOG OF BORING: CD-3

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/27/01
Date ended: 11/27/01
Completion depth: 37.0 ft
Stickup height: 3.00 ft

Surface elevation: 829.31 ft (MSL)
Top of pipe elevation: 832.31 ft (MSL)
Depth to water (TOB): 26.00 ft
Depth to water (24hrs): 28.78 ft

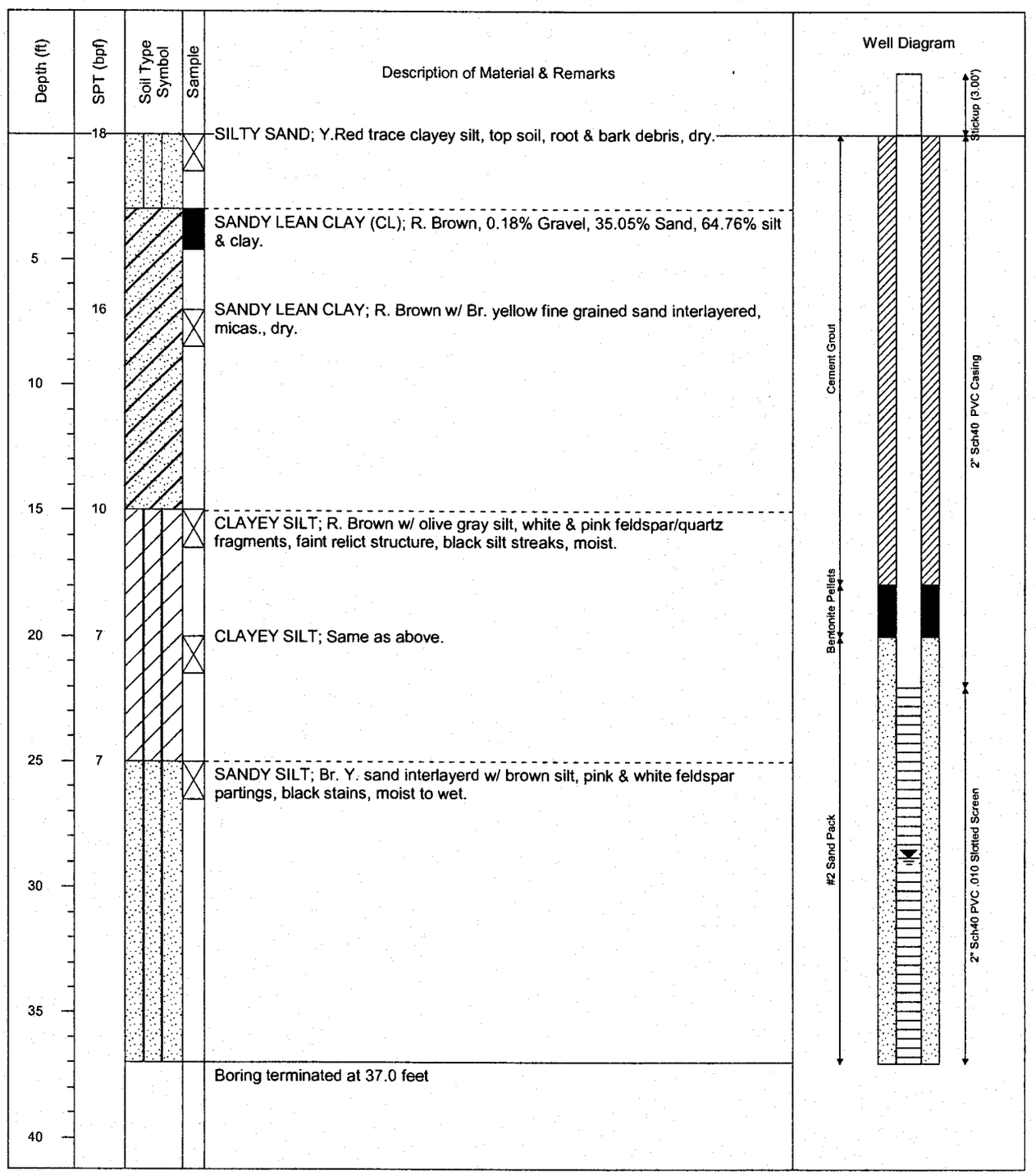

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Figure A-4. Graphical boring log, CD-4

LOG OF BORING: CD-4

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/26/01
Date ended: 11/26/01
Completion depth: 45.0 ft
Stickup height: 2.60 ft

Surface elevation: 875.26 ft (MSL)
Top of pipe elevation: 877.86 ft (MSL)
Depth to water (TOB): 33.00 ft
Depth to water (24hrs): 31.10 ft

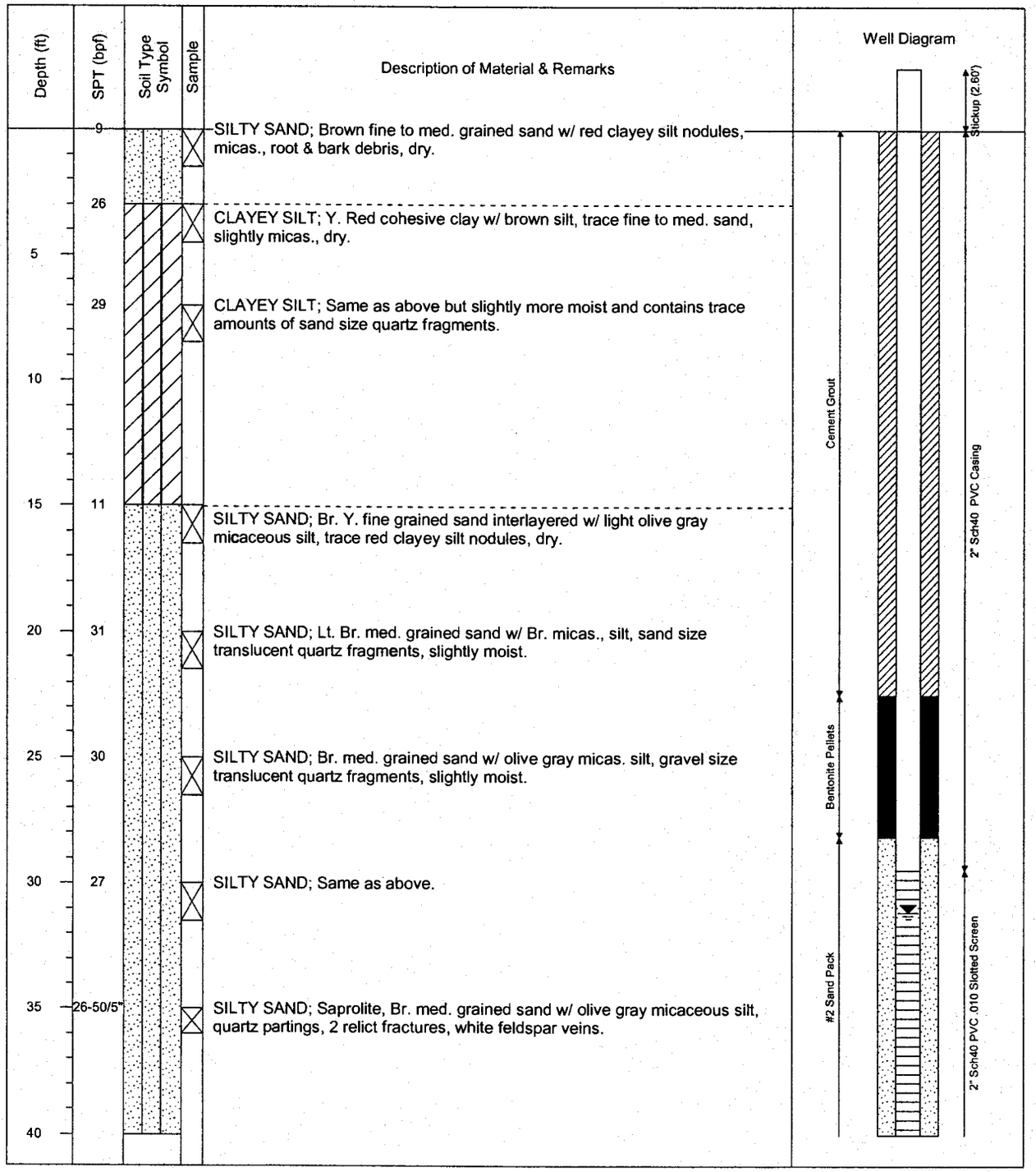

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Figure A-4. Graphical boring log, CD-4

(*Continued from previous page*)

LOG OF BORING: CD-4

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/26/01
Date ended: 11/26/01
Completion depth: 45.0 ft
Stickup height: 2.60 ft

Surface elevation: 875.26 ft (MSL)
Top of pipe elevation: 877.86 ft (MSL)
Depth to water (TOB): 33.00 ft
Depth to water (24hrs): 31.10 ft

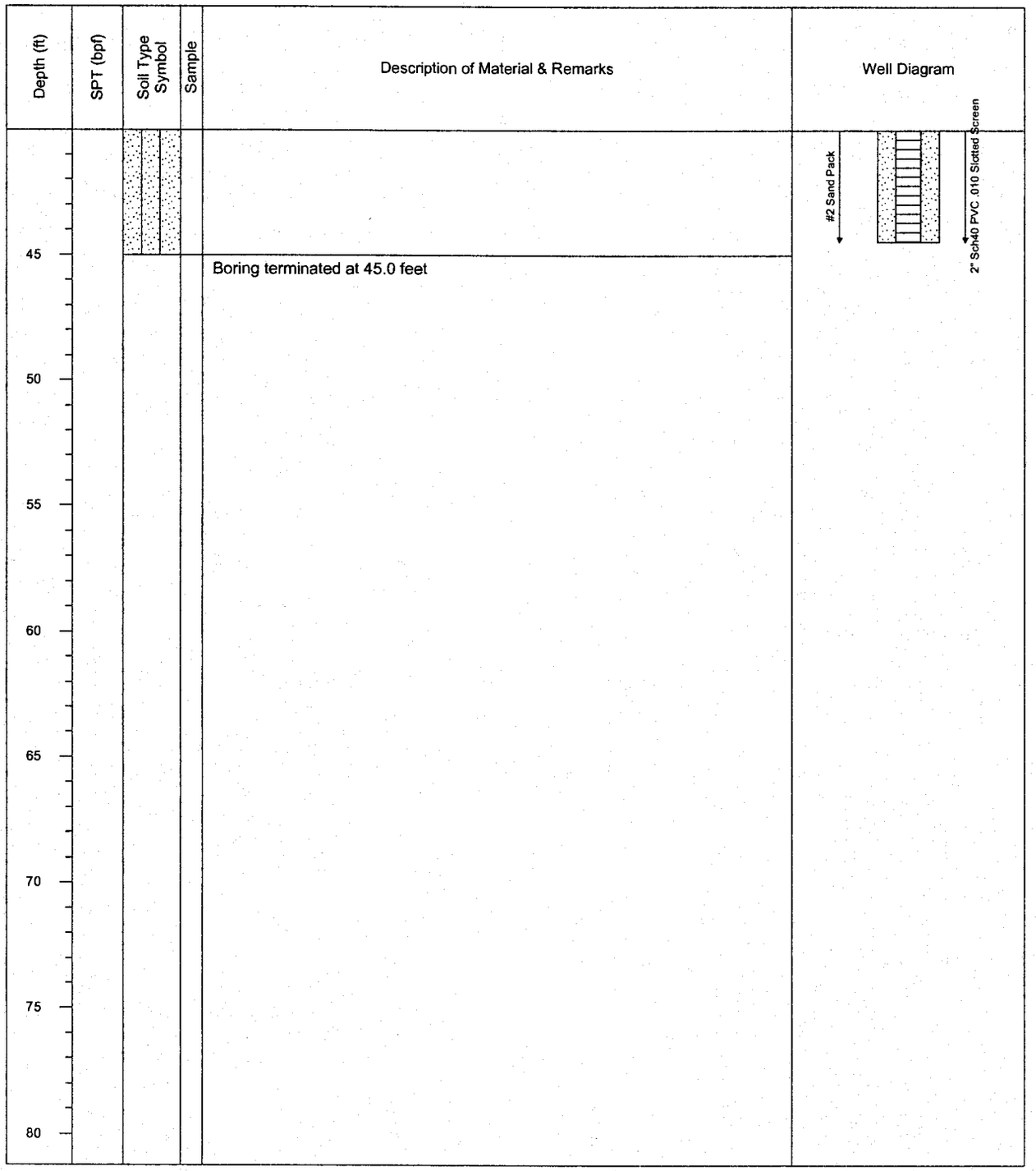

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Figure A-5. Graphical boring log, CD-5

LOG OF BORING: CD-5

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/27/01
Date ended: 11/27/01
Completion depth: 50.0 ft
Stickup height: 2.00 ft

Surface elevation: 858.28 ft (MSL)
Top of pipe elevation: 860.28 ft (MSL)
Depth to water (TOB): 37.00 ft
Depth to water (24hrs): 36.47 ft

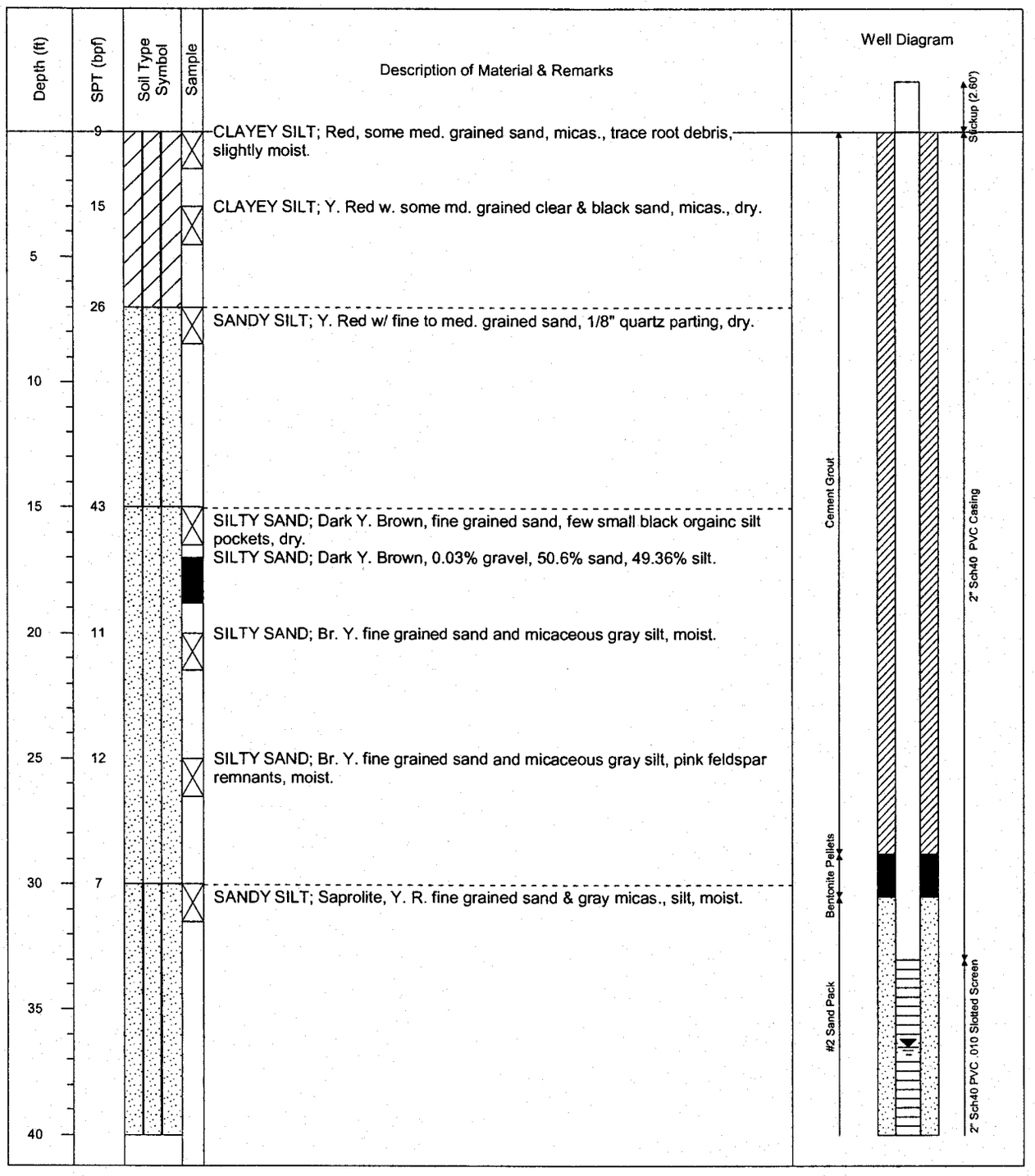

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Figure A-5. Graphical boring log, CD-5

(Continued from previous page)

LOG OF BORING: CD-5

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/27/01
Date ended: 11/27/01
Completion depth: 50.0 ft
Stickup height: 2.00 ft

Surface elevation: 858.28 ft (MSL)
Top of pipe elevation: 860.28 ft (MSL)
Depth to water (TOB): 37.00 ft
Depth to water (24hrs): 36.47 ft

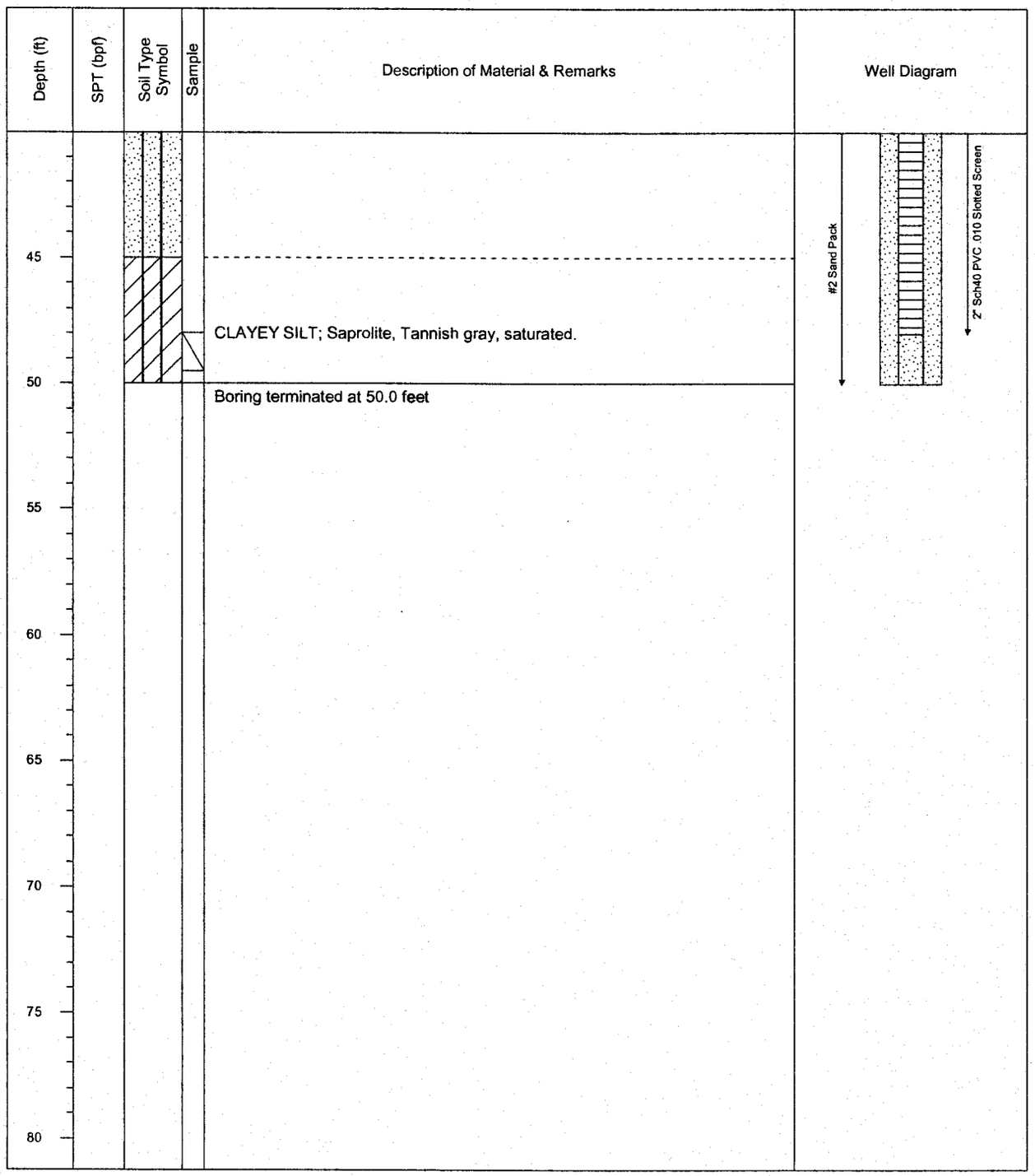

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Figure A-6. Graphical boring log, CD-6

LOG OF BORING: CD-6

Iredell County C&D Landfill — **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/27/01
Date ended: 11/27/01
Completion depth: 23.0 ft
Stickup height: 3.50 ft

Surface elevation: 817.12 ft (MSL)
Top of pipe elevation: 820.62 ft (MSL)
Depth to water (TOB): 13.00 ft
Depth to water (24hrs): 9.98 ft

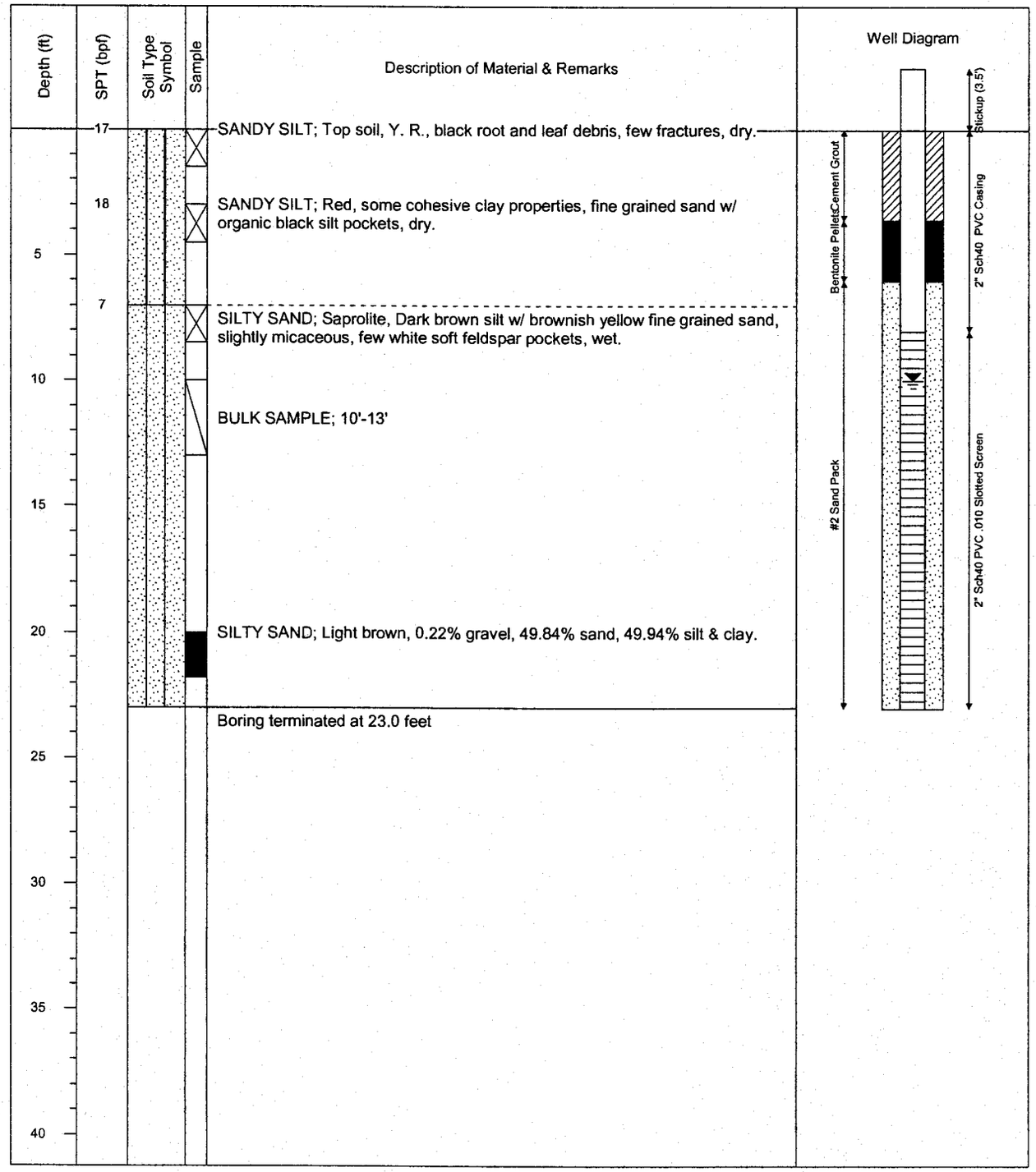

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Figure A-7. Graphical boring log, CD-7

LOG OF BORING: CD-7

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA w/SS
Logged by: Jonathan Pfohl

Date started: 11/27/01
Date ended: 11/27/01
Completion depth: 21.5 ft
Stickup height: 2.10 ft

Surface elevation: 829.07 ft (MSL)
Top of pipe elevation: 831.17 ft (MSL)
Depth to water (TOB): 12.00 ft
Depth to water (24hrs): 11.85 ft

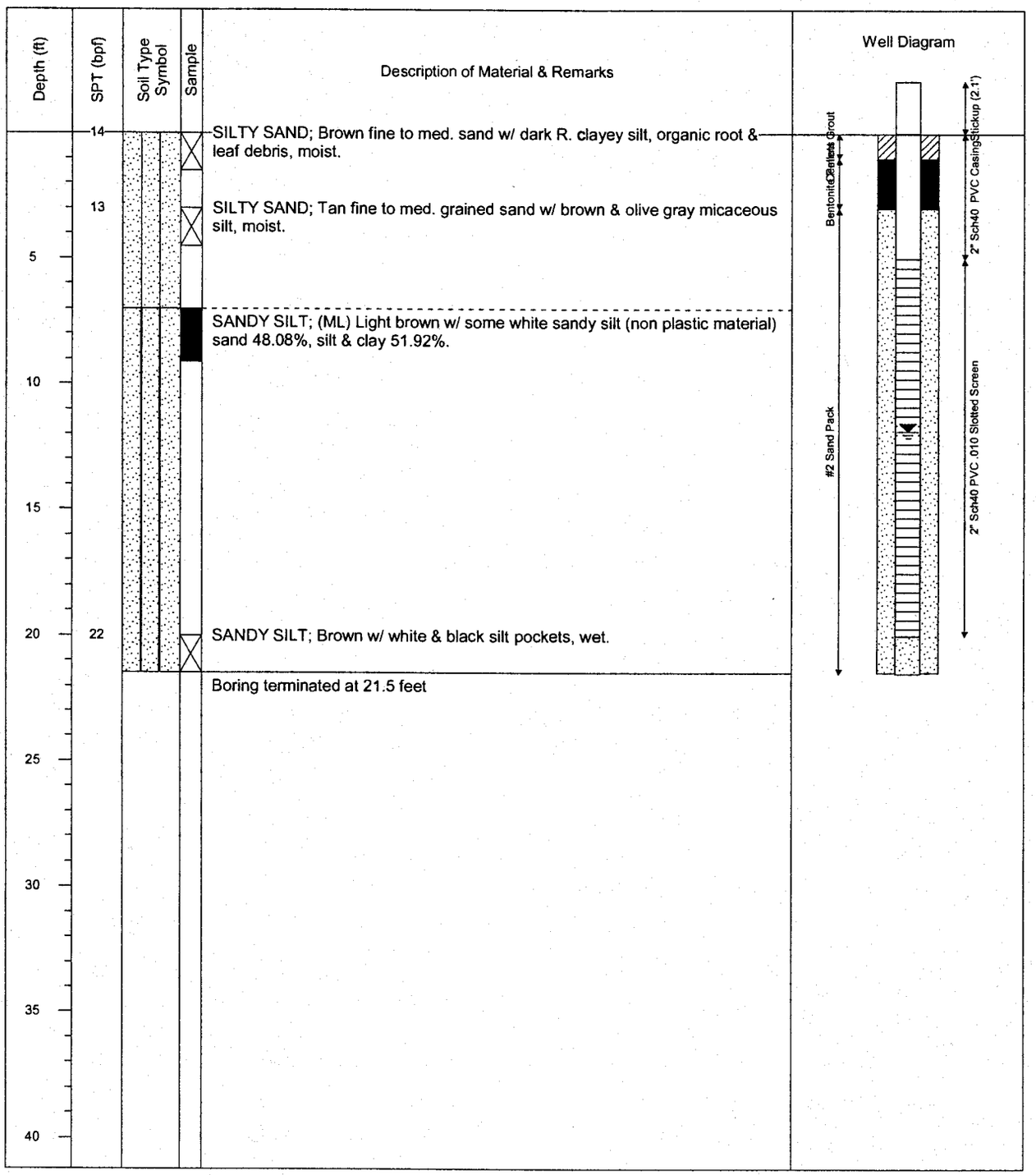

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Figure A-8. Graphical boring log, CD-8S

LOG OF BORING: CD-8S

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Engineering Tectonics
Drill rig & method: 8.5" O.D HSA
Logged by: Jonathan Pfohl

Date started: 10/21/03
Date ended: 10/21/03
Completion depth: 16.0 ft
Stickup height: 2.94 ft

Surface elevation: 816.40 ft (MSL)
Top of pipe elevation: 819.34 ft (MSL)
Depth to water (TOB): 7.00 ft
Depth to water (24hrs): 7.24 ft

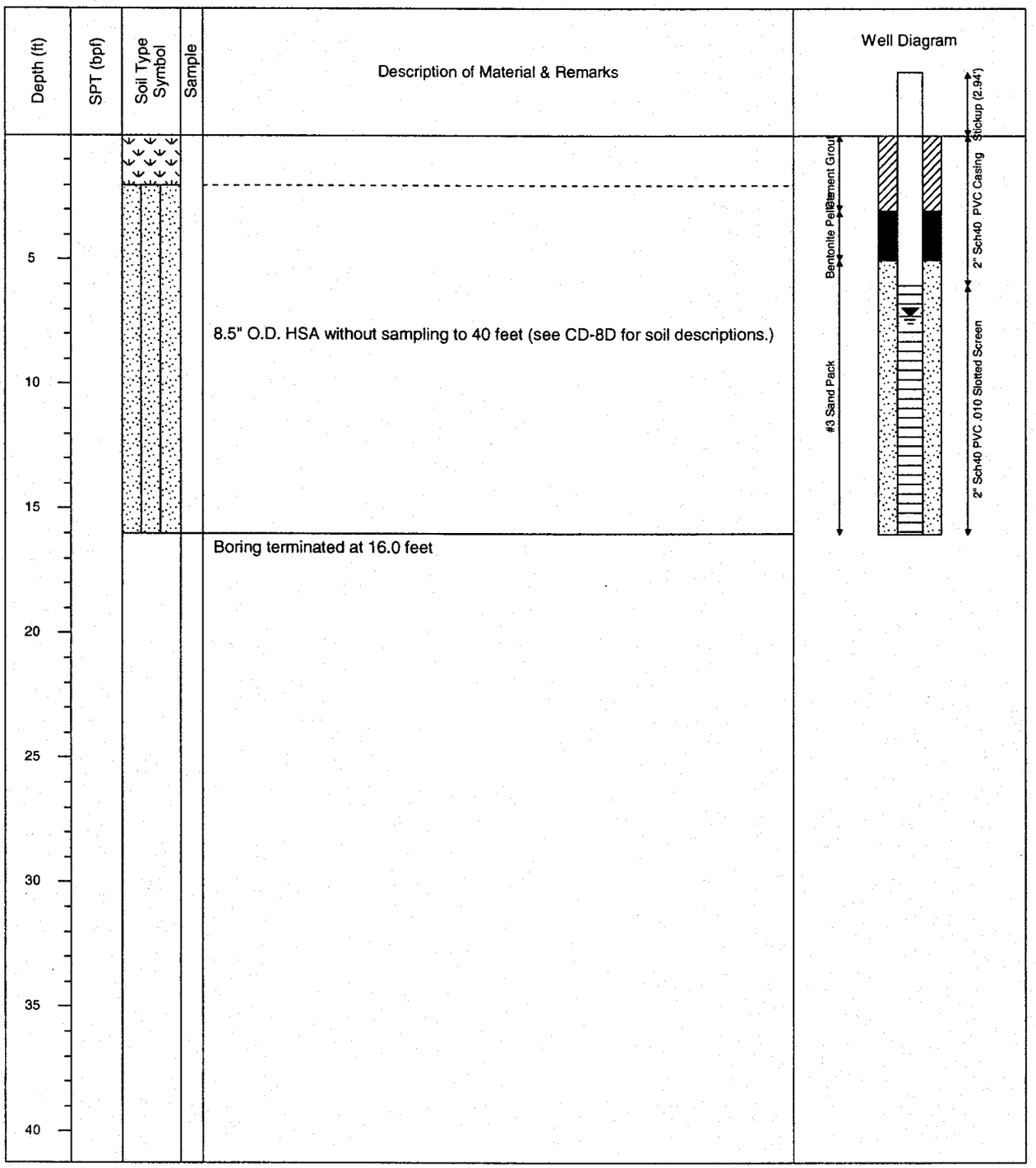

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Figure A-9. Graphical boring log, CD-8M

LOG OF BORING: CD-8M

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: MESCO
Drill rig & method: 8.5" O.D HSA w/ S.S
Logged by: Jonathan Pfohl

Date started: 10/20/03
Date ended: 10/21/03
Completion depth: 23.0 ft
Stickup height: 2.78 ft

Surface elevation: 816.35 ft (MSL)
Top of pipe elevation: 819.13 ft (MSL)
Depth to water (TOB): 7.00 ft
Depth to water (24hrs): 9.05 ft

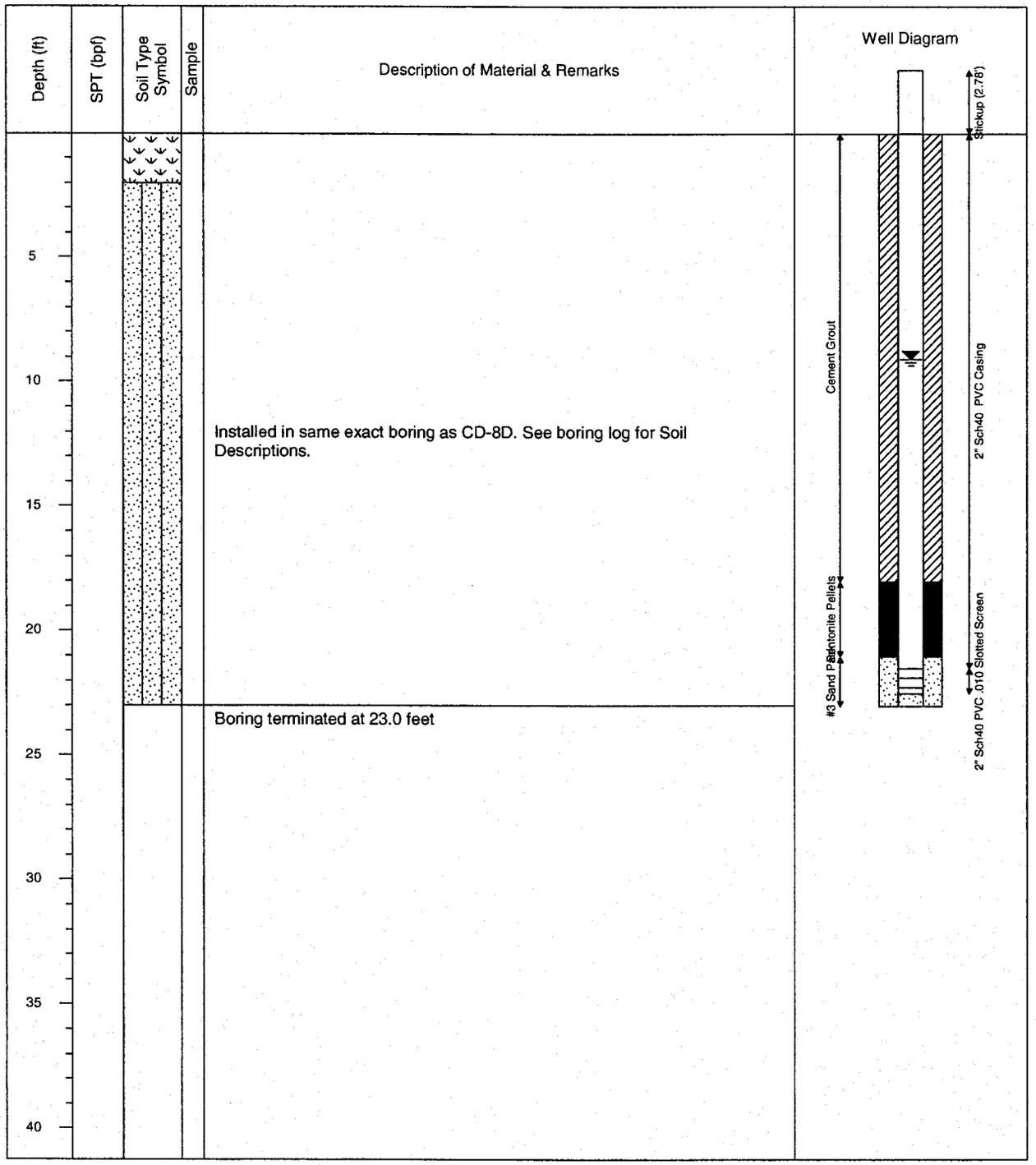

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Figure A-10. Graphical boring log, CD-8D

LOG OF BORING: CD-8D

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Engineering Tectonics
Drill rig & method: 8.5" O.D HSA w/ S.S
Logged by: Jonathan Pfohl

Date started: 10/20/03
Date ended: 10/21/03
Completion depth: 38.0 ft
Stickup height: 2.78 ft

Surface elevation: 816.35 ft (MSL)
Top of pipe elevation: 819.13 ft (MSL)
Depth to water (TOB): 7.00 ft
Depth to water (24hrs): 6.80 ft

Depth (ft)	SPT (bpf)	Soil Type Symbol	Sample	Description of Material & Remarks
				TOP SOIL; Gray, dry.
5	7			SILTY SAND; Light Brown, medium grained, white feldspathic partings, gray portions, micas., relict structure, small white quartz fragments, wet.
10	5			SILTY SAND; Light Brown, fine to medium grained, micas., relict structure, white feldspathic partings, wet.
15	24			SILTY SAND; Brown, medium grained, saprolite, gray streaks, micas., relict structure, small white quartz fragments, wet.
20	62			SILTY SAND; Same as above but more dense saprolite.
25	60			SILTY SAND; Gray & Brown medium grained saprolite, no fractures, Iron staining, white quartz fragments, wet.
30	46			SILTY SAND; Saprolite same as above.
35	63			SILTY SAND; Saprolite same as above.
				Boring terminated at 38.0 feet
40				

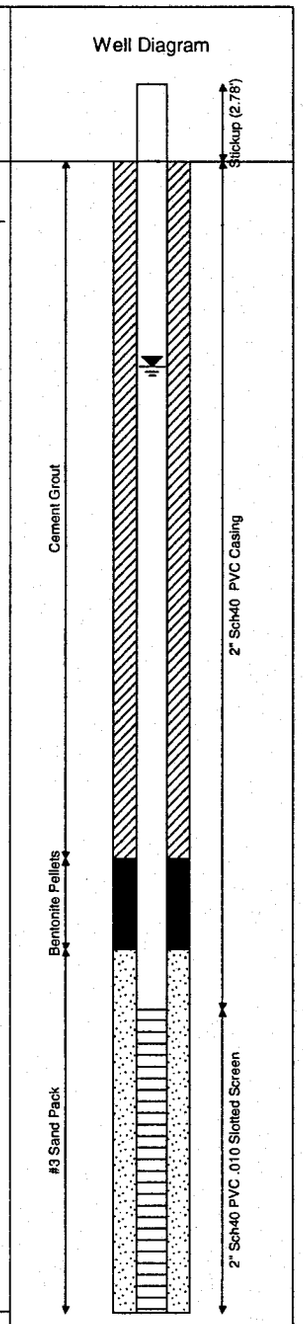

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Figure A-11. Graphical boring log, MW-1A

LOG OF BORING: MW-1A

Iredell County Landfill, Phase 1 - Statesville, North Carolina **Project No. G96129.7**

Drilling contractor: GAI
Drill rig & method: 8.5" O.D HSA
Logged by: Wendell Parker

Date started: 4/27/93
Date ended: 4/27/93
Completion depth: 40.0 ft
Stickup height: 1.80 ft

Surface elevation: 865.94 ft (MSL)
Top of pipe elevation: 867.74 ft (MSL)
Depth to water (TOB): 8.80 ft
Depth to water (24hrs): 8.80 ft

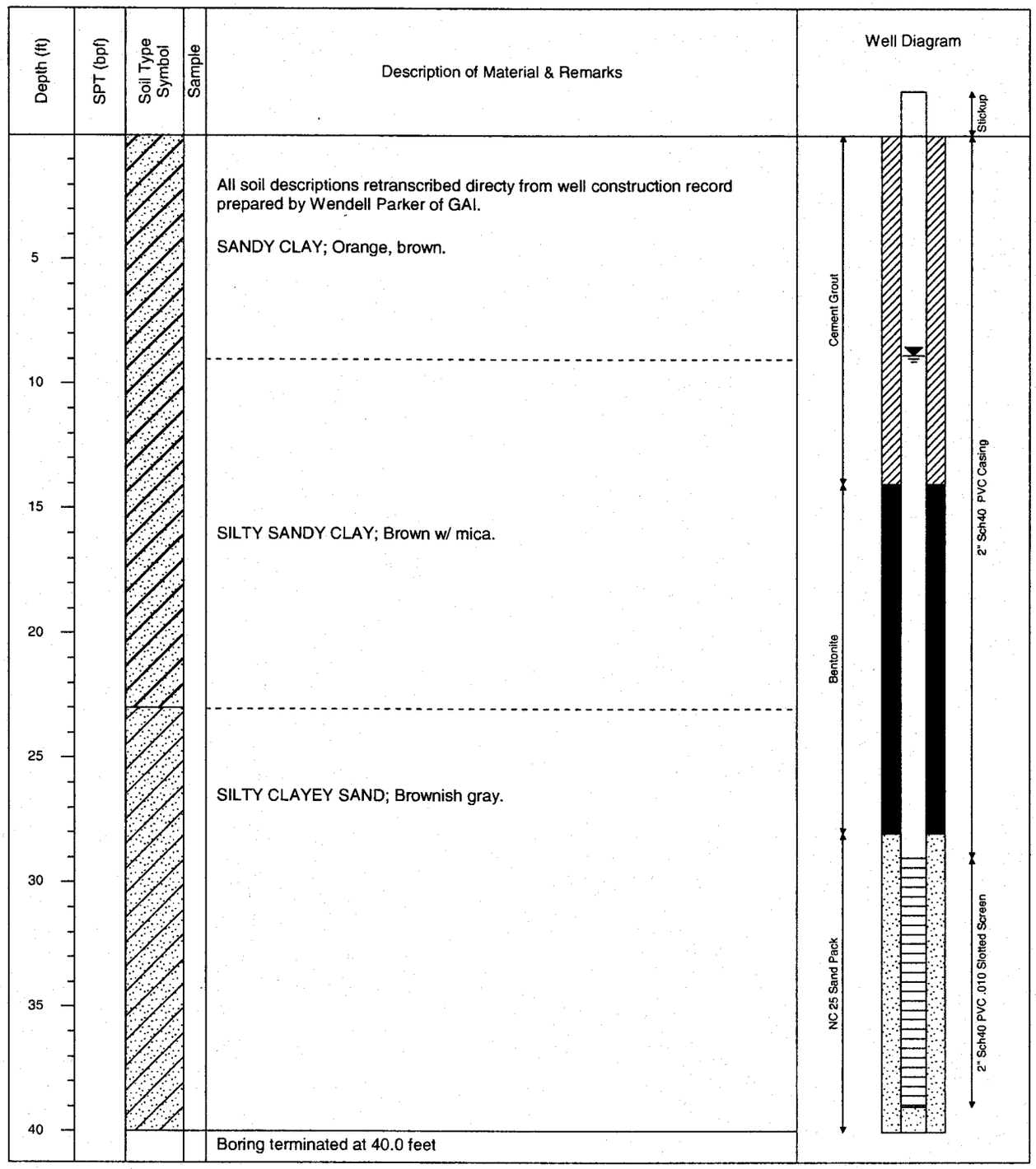

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Figure A-12. Graphical boring log, MW-1B

LOG OF BORING: MW-1B

Iredell County Landfill, Phase 1 - Statesville, North Carolina **Project No. G96129.7**

Drilling contractor: GAI
Drill rig & method: 8.5" O.D HSA
Logged by: Wendell Parker

Date started: 4/28/93
Date ended: 4/28/93
Completion depth: 21.0 ft
Stickup height: 1.90 ft

Surface elevation: 866.03 ft (MSL)
Top of pipe elevation: 867.93 ft (MSL)
Depth to water (TOB): 11.60 ft
Depth to water (24hrs): 11.60 ft

Depth (ft)	SPT (bpf)	Soil Type Symbol	Sample	Description of Material & Remarks
0				All soil descriptions retranscribed directy from well construction record prepared by Wendell Parker of GAI.
5				SANDY CLAY; Orange, brown.
10				
15				SILTY SANDY CLAY; Brown w/ mica.
20				Boring terminated at 21.0 feet
25				
30				
35				
40				

Well Diagram

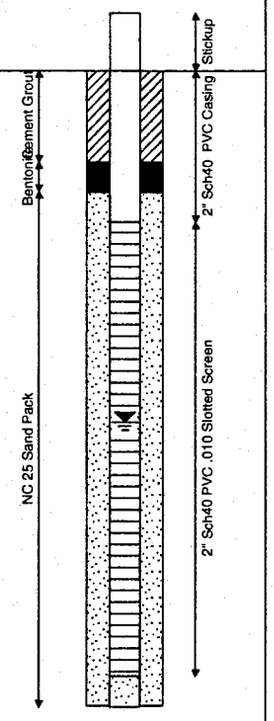

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Figure A-13. Graphical boring log, MW-1C

LOG OF BORING: MW-1C

Iredell County Landfill **Project No. G03013.0**

Drilling contractor: Engineering Tectonics
Drill rig & method: 8.5" O.D HSA
Logged by: Jonathan Pfohl

Date started: 10/20/03
Date ended: 10/20/03
Completion depth: 34.0 ft
Stickup height: 2.81 ft

Surface elevation: 863.44 ft (MSL)
Top of pipe elevation: 866.25 ft (MSL)
Depth to water (TOB): 19.00 ft
Depth to water (24hrs): 19.42 ft

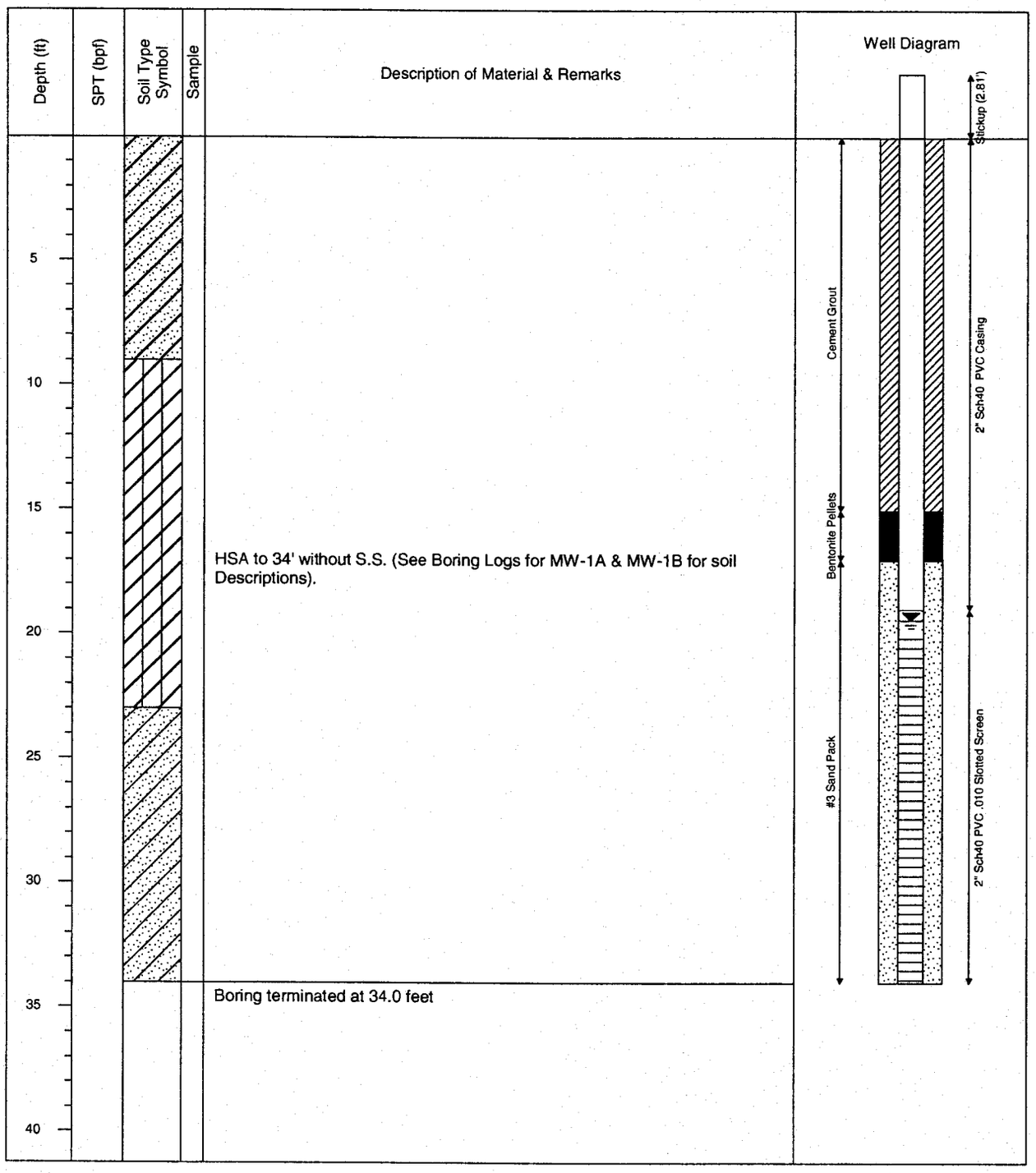

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Figure A-14. Graphical boring log, MW-9R

LOG OF BORING: MW-9R

Iredell County C&D Landfill — **Project No. G99087.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA
Logged by: Jonathan Pfohl

Date started: 6/26/00
Date ended: 6/26/00
Completion depth: 20.0 ft
Stickup height: 3.15 ft

Surface elevation: 804.04 ft (MSL)
Top of pipe elevation: 807.19 ft (MSL)
Depth to water (TOB): 9.60 ft
Depth to water (24hrs): 7.80 ft

Depth (ft)	SPT (bpf)	Soil Type Symbol	Sample	Description of Material & Remarks
5	12			SANDY SILT; 3.5'-4.0' Red with organic root debris. 4.0'-5.0' White Sandy Silt, cohesive, micas., moist.
10	6			SANDY SILT; Reddish Brown, interbedded w/ white sand and black spots, micas., wet.
15	7			SANDY SILT; Reddish Brown, saturated, No discernable characteristics due to extremely high moisture content.
20				Boring terminated at 20.0 feet

Well Diagram

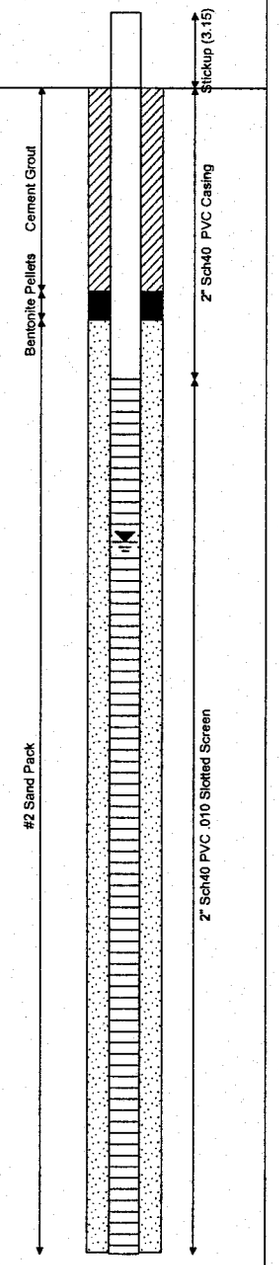

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Figure A-15. Graphical boring log, MW-9RR

LOG OF BORING: MW-9RR

Iredell County C&D Landfill **Project No. G01026.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA
Logged by: Jonathan Pfohl

Date started: 11/28/01
Date ended: 11/28/01
Completion depth: 22.0 ft
Stickup height: 2.60 ft

Surface elevation: 803.56 ft (MSL)
Top of pipe elevation: 806.16 ft (MSL)
Depth to water (TOB): 12.00 ft
Depth to water (24hrs): 15.91 ft

Depth (ft)	SPT (bpf)	Soil Type Symbol	Sample	Description of Material & Remarks
0	22			TOP SOIL-Grass, w/ dark organic matter, leaf and root debris, wet.
5	15			SANDY SILT; 3.5'-4.0' Red with organic root debris. 4.0'-5.0' White Sandy Silt, cohesive, micas., moist.
10	8			SANDY SILT; Reddish Brown, interbedded w/ white sand and black spots, micas., damp.
15				
20	14			SANDY SILT; Reddish Brown, saturated, No discernable characteristics due to extremely high moisture content.
25				Boring terminated at 22.0 feet
30				
35				
40				

Well Diagram

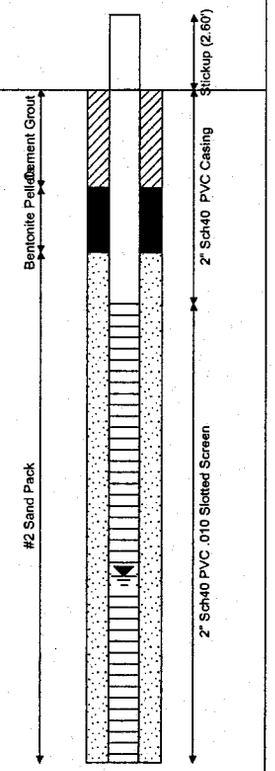

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Figure A-16. Graphical boring log, MW-10R

LOG OF BORING: MW-10R

Iredell County C&D Landfill — **Project No. G99087.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA
Logged by: Jonathan Pfohl

Date started: 6/26/00
Date ended: 6/26/00
Completion depth: 25.0 ft
Stickup height: 3.60 ft

Surface elevation: 817.14 ft (MSL)
Top of pipe elevation: 820.74 ft (MSL)
Depth to water (TOB): 16.80 ft
Depth to water (24hrs): 18.88 ft

Depth (ft)	SPT (bpf)	Soil Type Symbol	Sample	Description of Material & Remarks
5	17			SILTY CLAY; Red, Stiff, Few large Quartzose fragments, Micaceous, Root Debris, Dry
10	18			SILTY CLAY; Red, stiff, cohesive, dry, root debris, dry.
15	13			SANDY SILT; Red Silt w/ Tan sand, black spots, Micas., no fractures, few gravel size rock fragments, moist.
				16.8 Ft. Hit water while drilling
20	7			SILTY SAND; Tan Sand with Red Silt, Large horizontal black partings, Micas., Wet.
	7			SILTY SAND; Tan sand w/ red silt, 3 sand size quartz partings, Micas., wet.
25				Boring terminated at 25.0 feet

Well Diagram

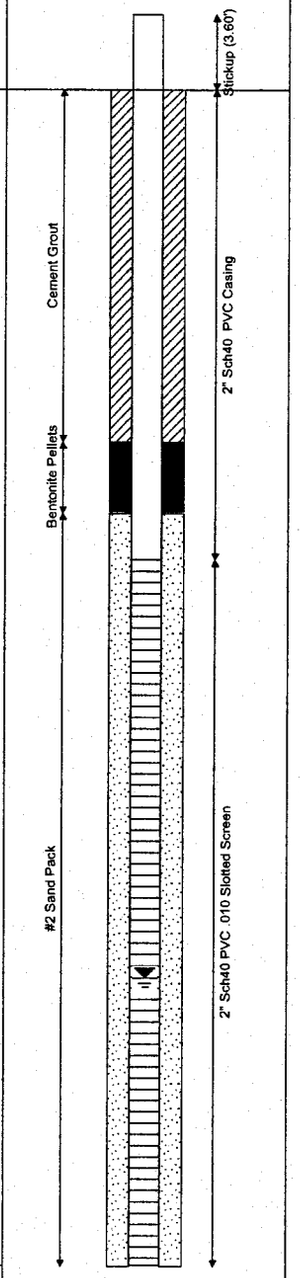

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Figure A-17. Graphical boring log, MW-16

LOG OF BORING: MW-16

Iredell County C&D Landfill **Project No. G99087.0**

Drilling contractor: Geologic Explorations
Drill rig & method: 8.5" O.D HSA
Logged by: Jonathan Pfohl

Date started: 6/27/00
Date ended: 6/27/00
Completion depth: 20.0 ft
Stickup height: 2.81 ft

Surface elevation: 791.33 ft (MSL)
Top of pipe elevation: 794.14 ft (MSL)
Depth to water (TOB): 9.00 ft
Depth to water (24hrs): 8.74 ft

Depth (ft)	SPT (bpf)	Soil Type Symbol	Sample	Description of Material & Remarks
5	10			SANDY SILT; Tan, micaceous, root debris, black spots, dry.
				9 Ft. Hit water while drilling
10	13			SANDY SILT; Tan, , Micaceous, Root Debris, black spots, wet, large proportion of white sand grains.
15	10			SANDY SILT; Tan, , Micaceous, Root Debris, black spots, wet, larger proportion of white sand grains.
	7			SANDY SILT; Tan, , Micaceous, Root Debris, black spots, wet, large quartz seam at bit, trace of black organic material, saturated.
20				Boring terminated at 20.0 feet
25				

Well Diagram

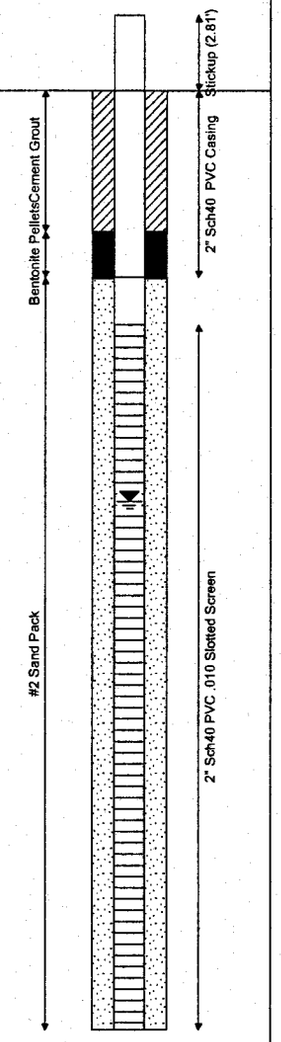

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Figure A-18. Piezometer construction diagram for CD-1 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: CD-1
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 25.27 ft (24 hrs)
8. DATE DRILLED: 11/26/2001

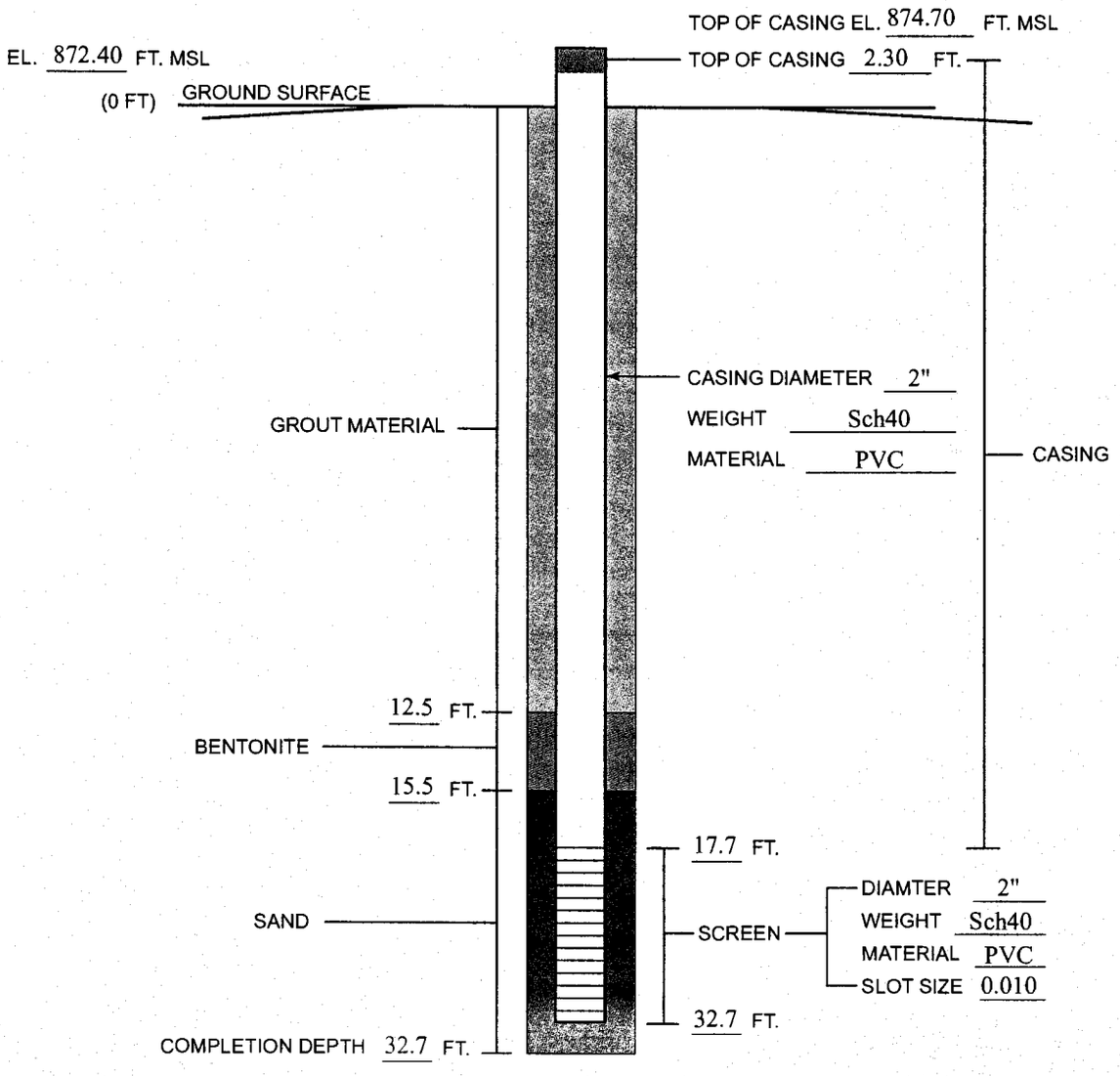


Figure A-19. Piezometer construction diagram for CD-2 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: CD-2
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 36.46 ft (24 hrs)
8. DATE DRILLED: 11/26/2001 - 11/27/2001

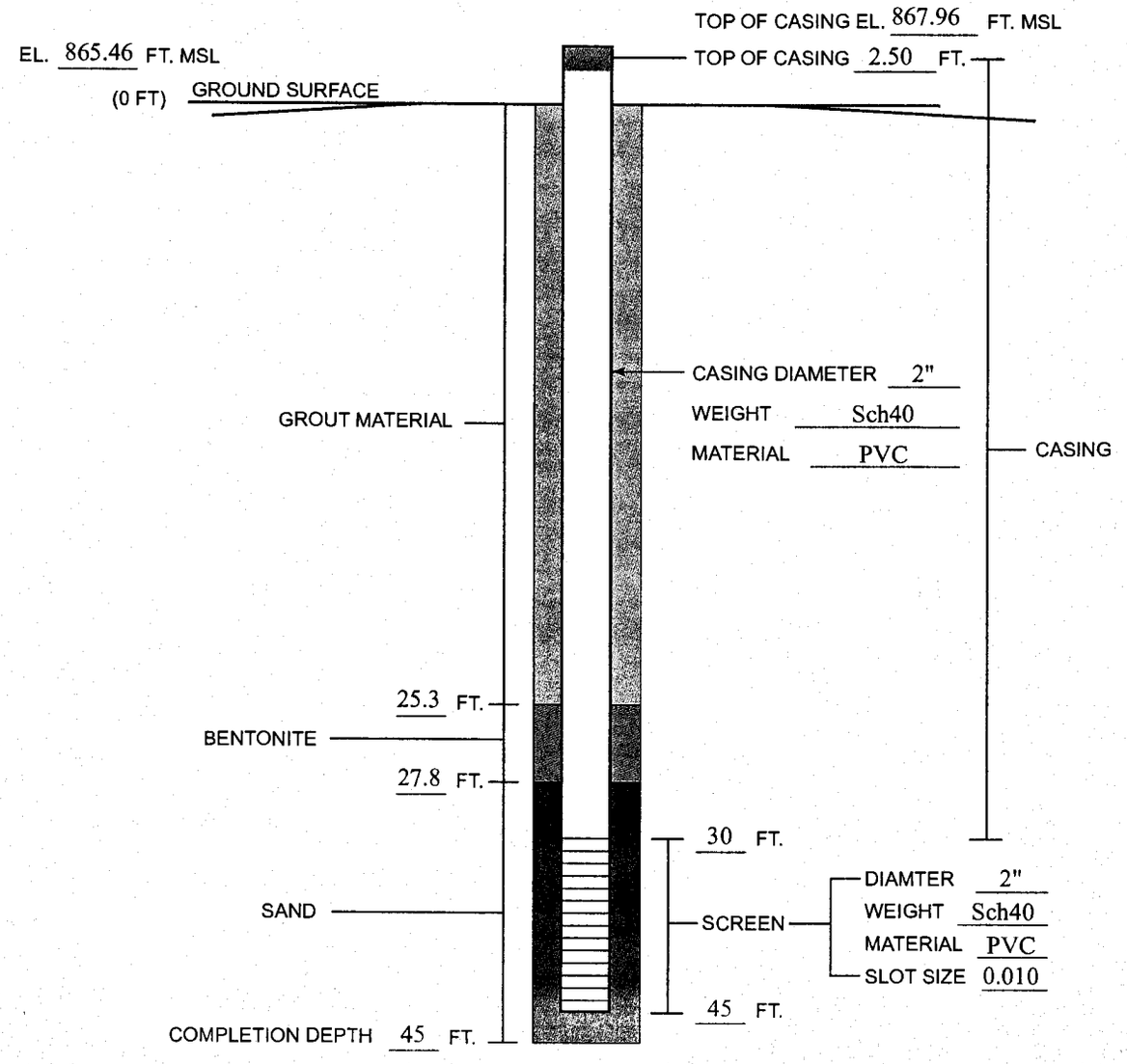


Figure A-20. Piezometer construction diagram for CD-3 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR Geologic Explorations
2. REGISTRATION NUMBER 2345
3. PIEZOMETER NUMBER CD-3
4. TOWN Statesville
5. COUNTY Iredell
6. OWNER Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING 28.78 ft (24 hrs)
8. DATE DRILLED 11/27/2001

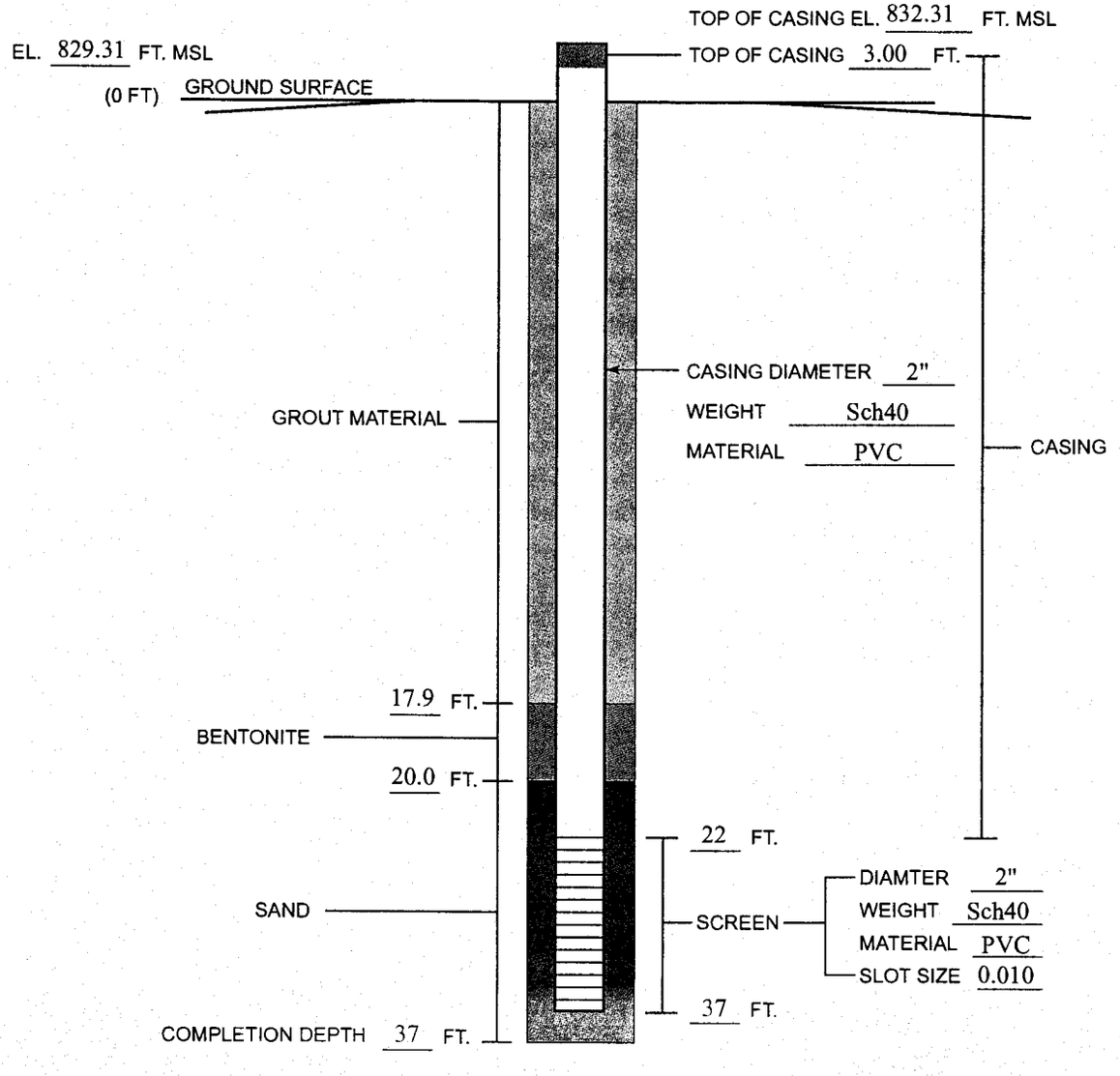


Figure A-21. Piezometer construction diagram for CD-4 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: CD-4
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 31.10 ft (24 hrs)
8. DATE DRILLED: 11/26/2001

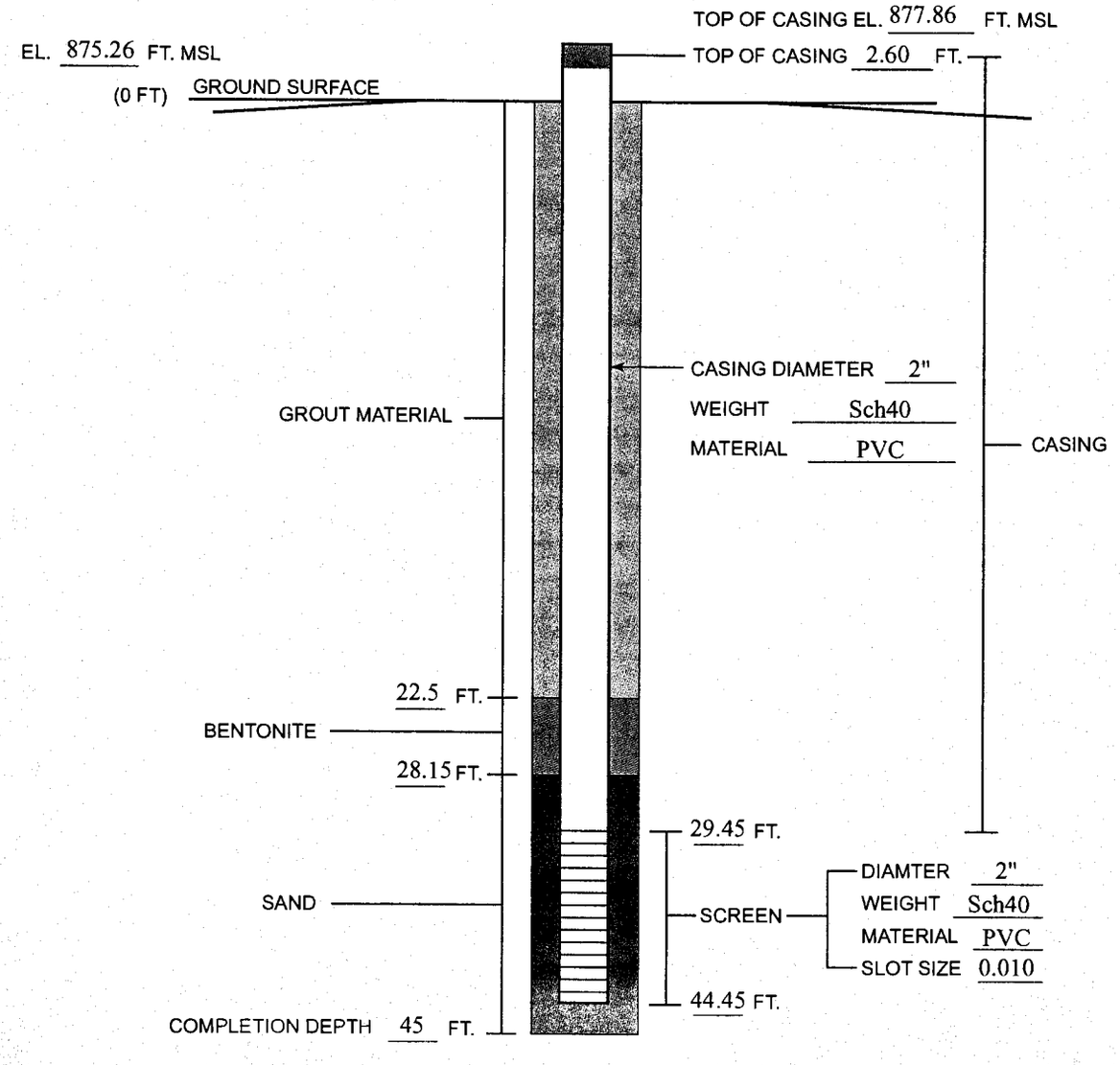


Figure A-22. Piezometer construction diagram for CD-5 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: CD-5
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 36.47 ft (24 hrs)
8. DATE DRILLED: 11/27/2001

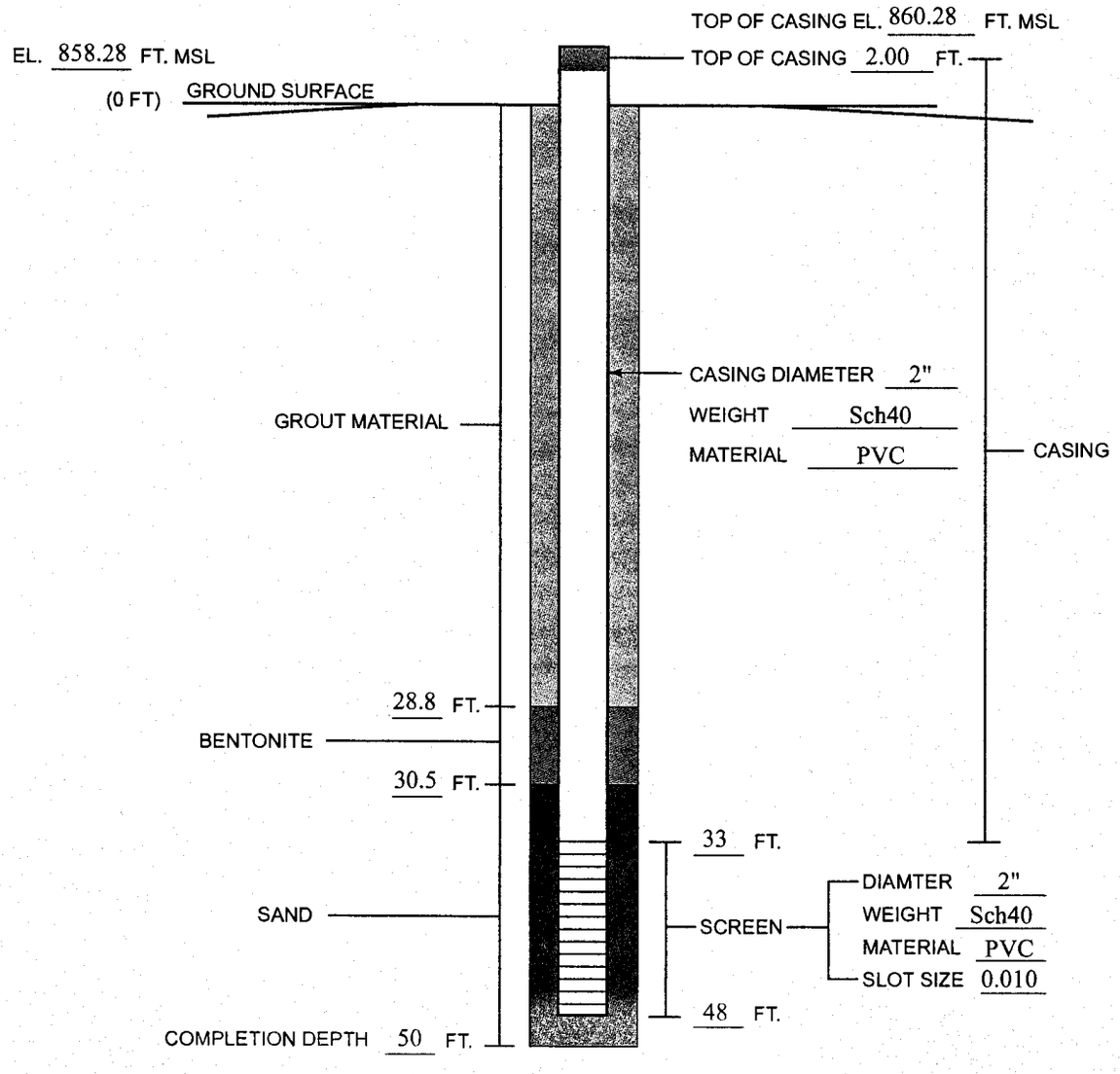


Figure A-23. Piezometer construction diagram for CD-6 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR Geologic Explorations
2. REGISTRATION NUMBER 2345
3. PIEZOMETER NUMBER CD-6
4. TOWN Statesville
5. COUNTY Iredell
6. OWNER Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING 9.98 ft (24 hrs)
8. DATE DRILLED 11/27/2001

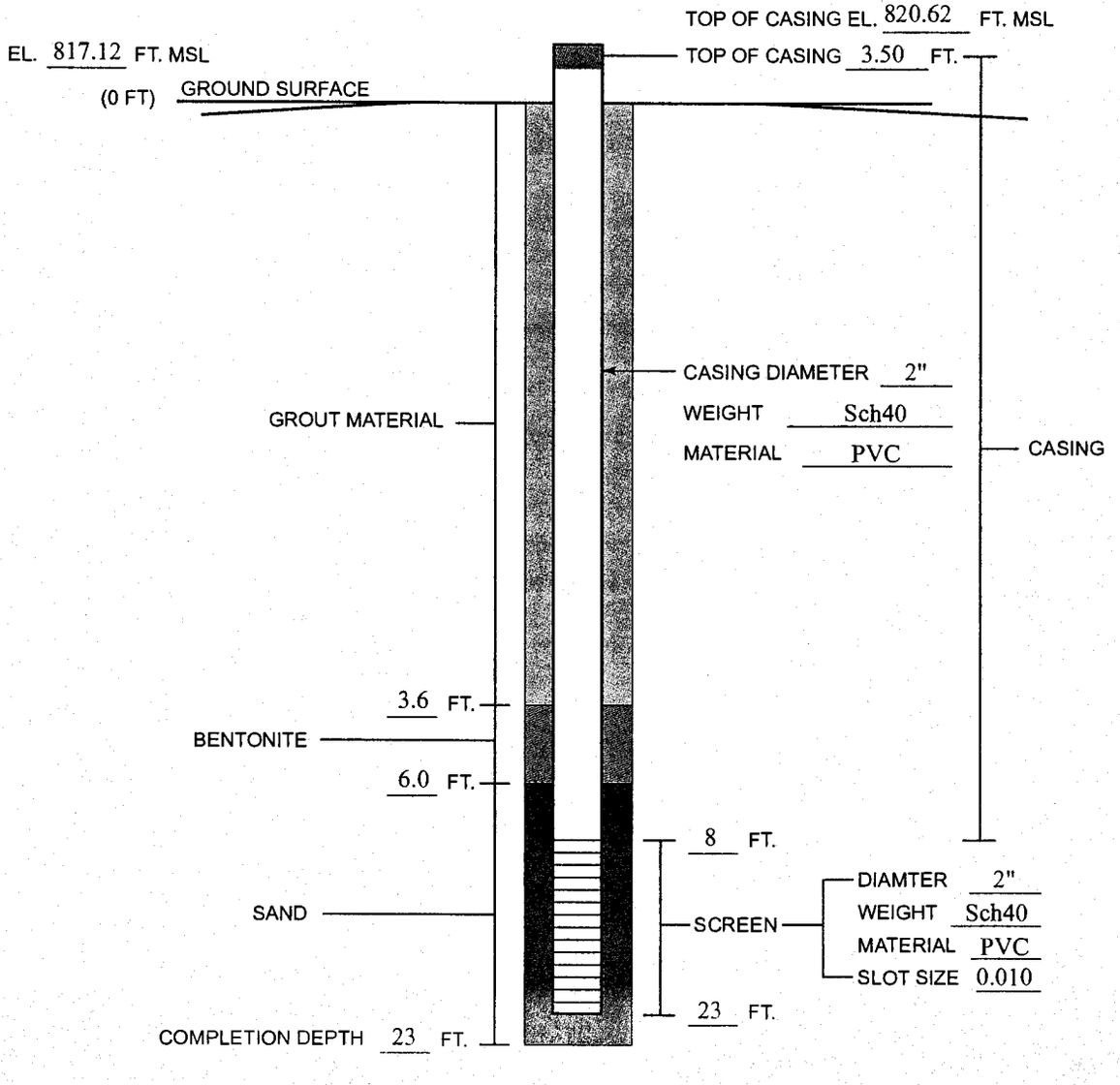


Figure A-24. Piezometer construction diagram for CD-7 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: CD-7
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 11.85 ft (24 hrs)
8. DATE DRILLED: 11/27/2001

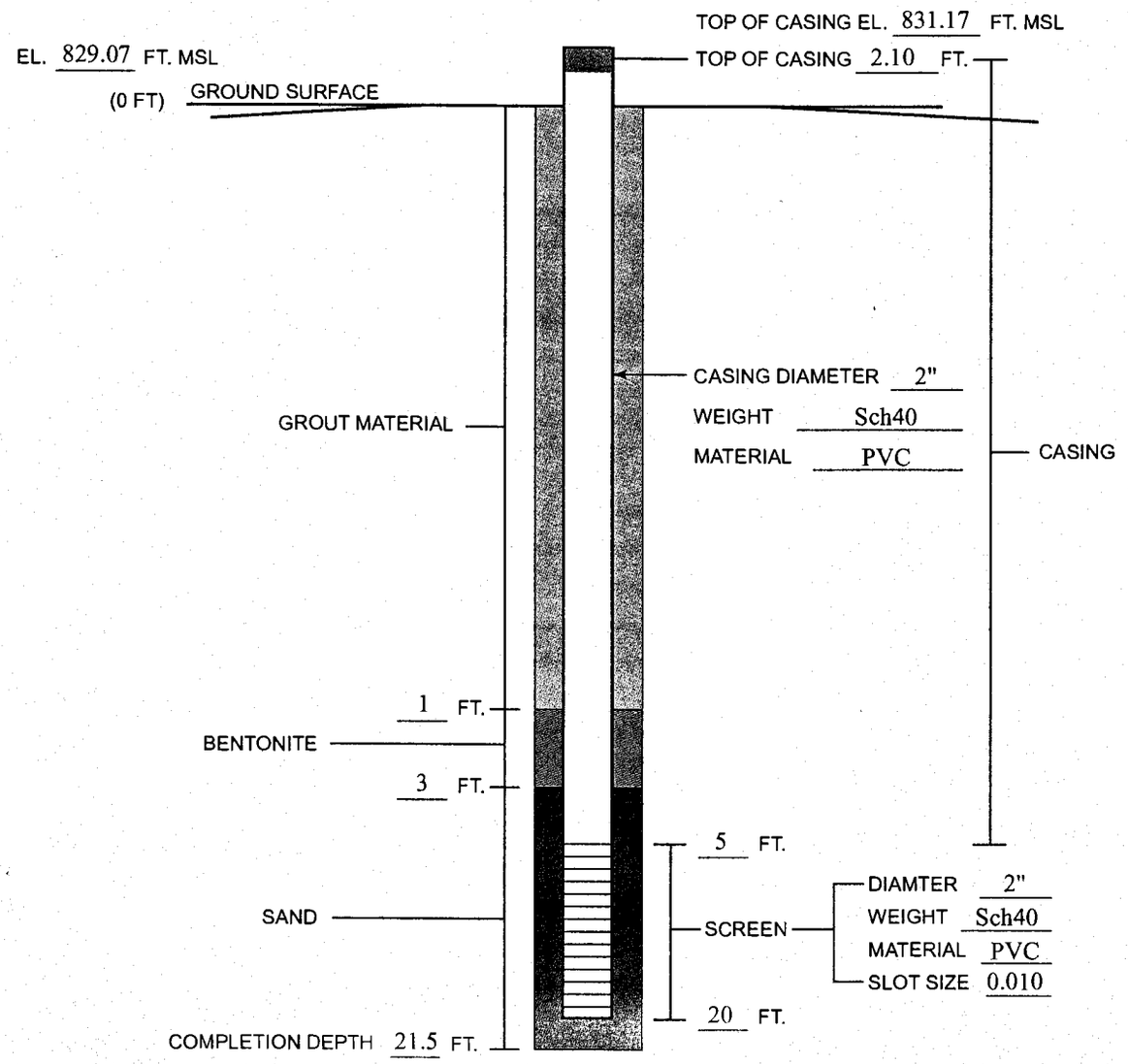


Figure A-25. Piezometer construction diagram for CD-8S (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Engineering Tectonics
2. REGISTRATION NUMBER: 2091
3. PIEZOMETER NUMBER: CD-8S
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 10.18 ft (24 hrs)
8. DATE DRILLED: 10/21/2003

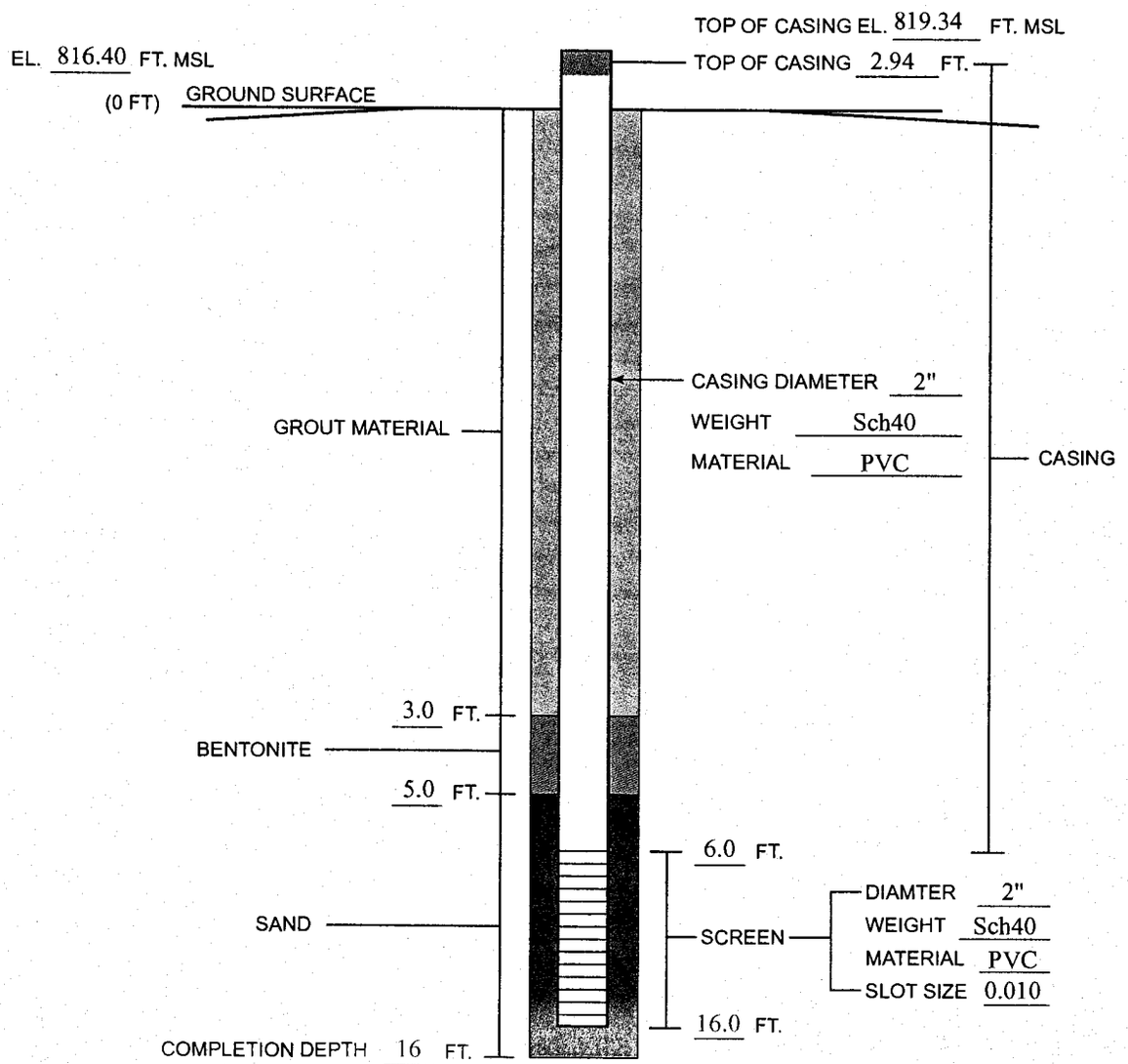


Figure A-26. Piezometer construction diagram for CD-8M (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR Engineering Tectonics
2. REGISTRATION NUMBER 2091
3. PIEZOMETER NUMBER CD-8M
4. TOWN Statesville
5. COUNTY Iredell
6. OWNER Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING 11.83 ft (24 hrs)
8. DATE DRILLED 10/21/2003

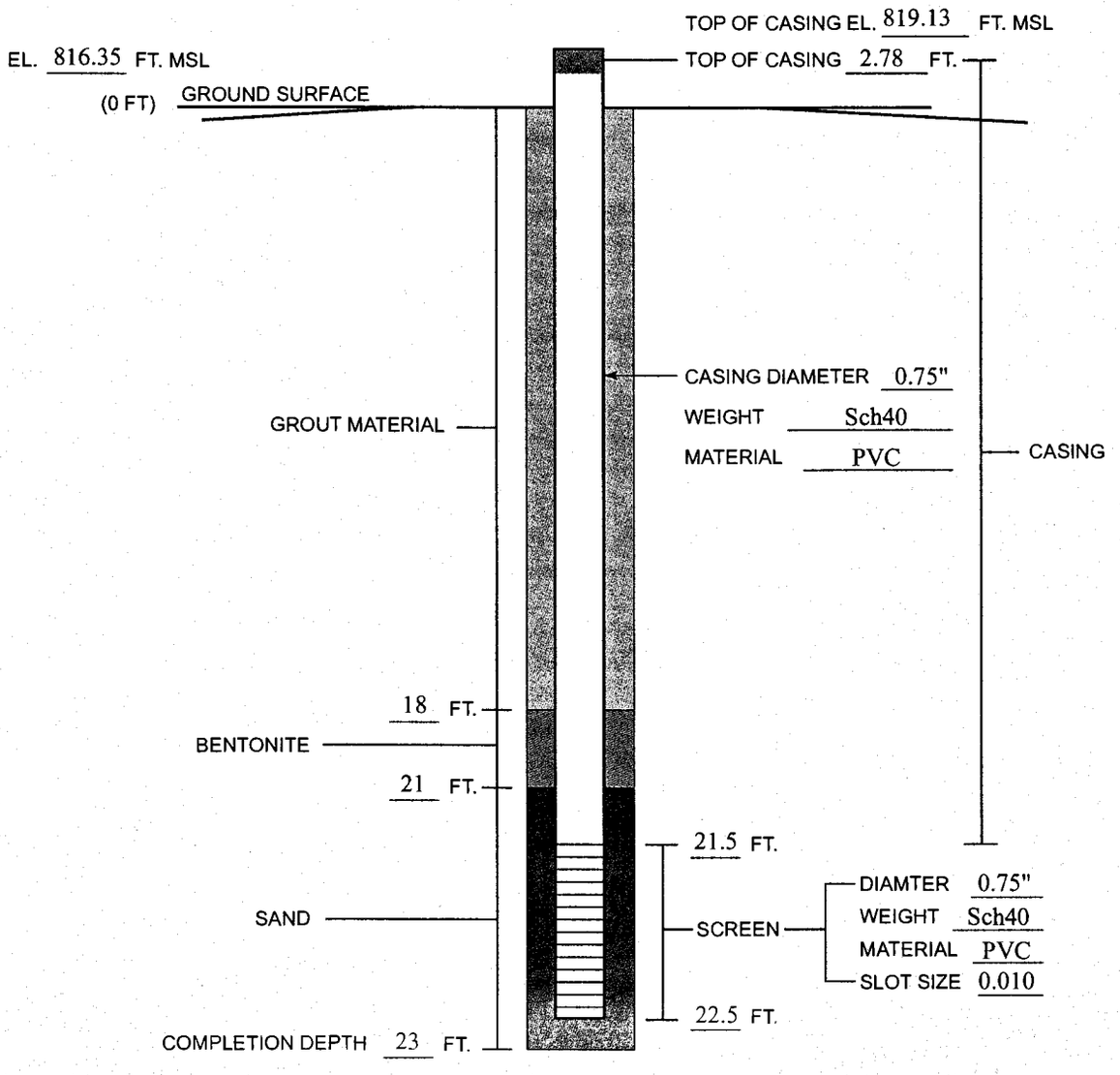


Figure A-27. Piezometer construction diagram for CD-8D (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Engineering Tectonics
2. REGISTRATION NUMBER: 2091
3. PIEZOMETER NUMBER: CD-8D
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 9.58 ft (24 hrs)
8. DATE DRILLED: 10/21/2003

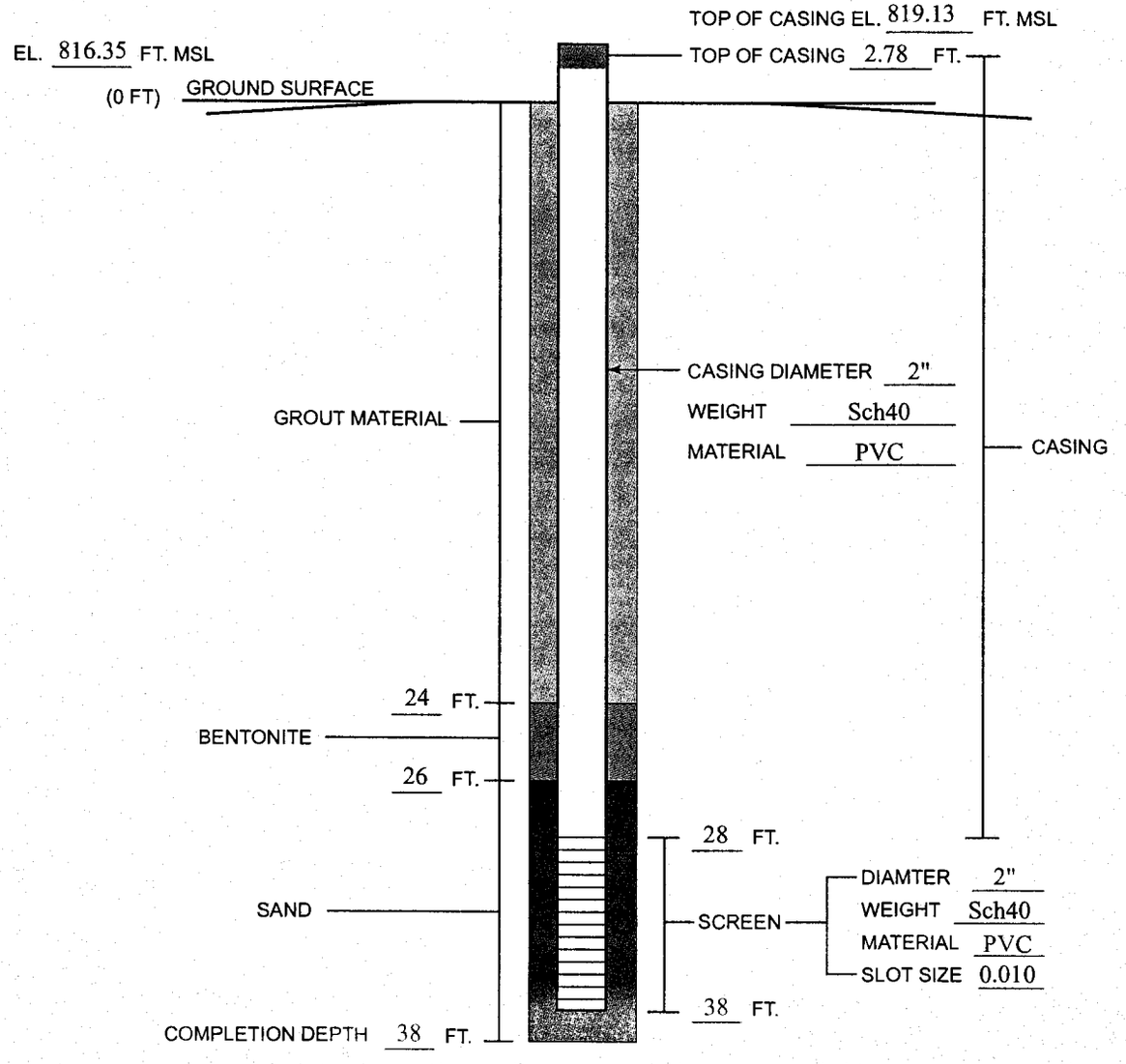


Figure A-28. Piezometer construction diagram for MW-1C (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR Engineering Tectonics
2. REGISTRATION NUMBER 2091
3. PIEZOMETER NUMBER MW-1C
4. TOWN Statesville
5. COUNTY Iredell
6. OWNER Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING 22.23 ft (24 hrs)
8. DATE DRILLED 10/20/2003

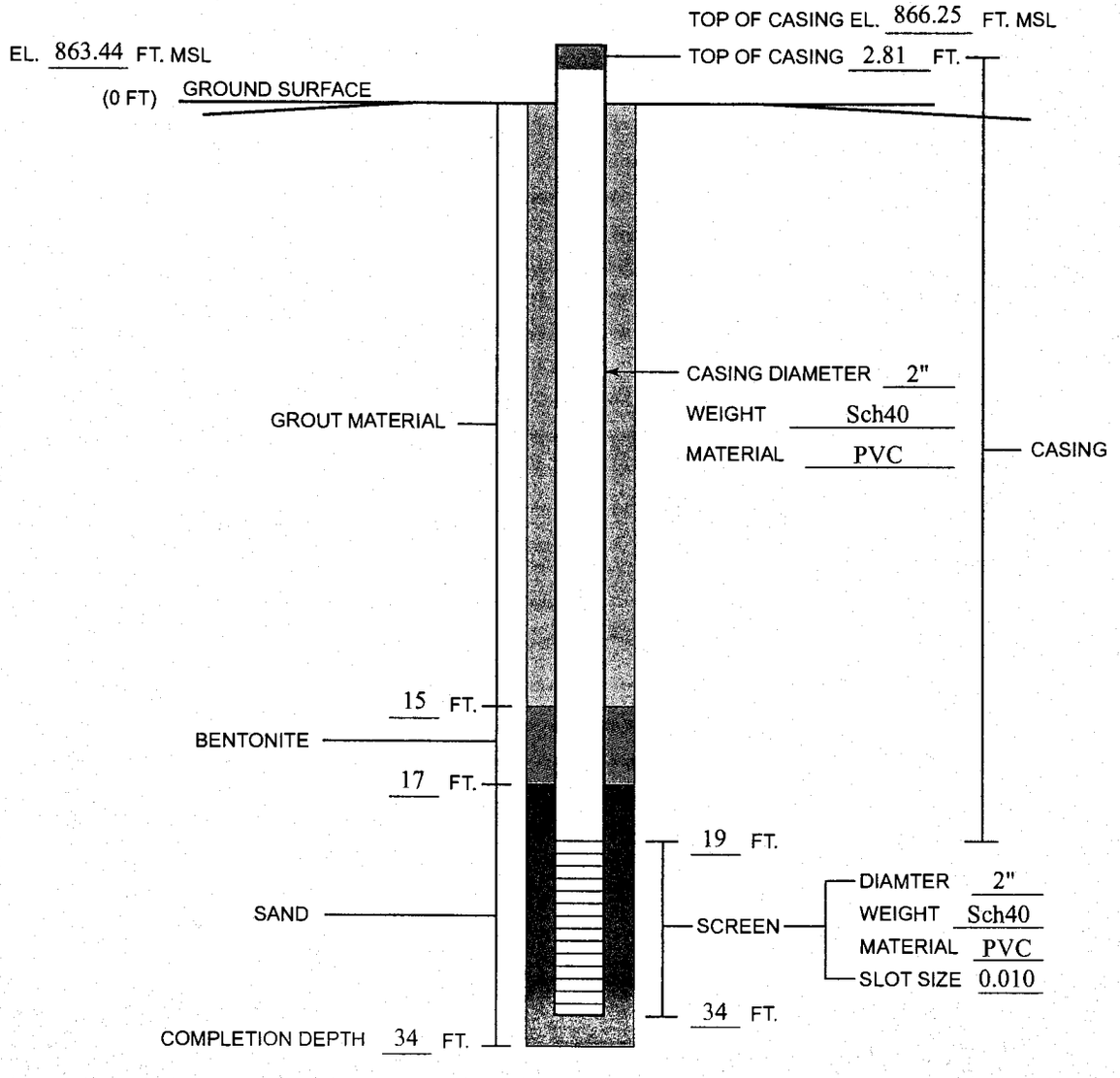


Figure A-29. Piezometer construction diagram for MW-9R (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: MW-9R
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 7.80 ft (24 hrs)
8. DATE DRILLED: 6/26/2000

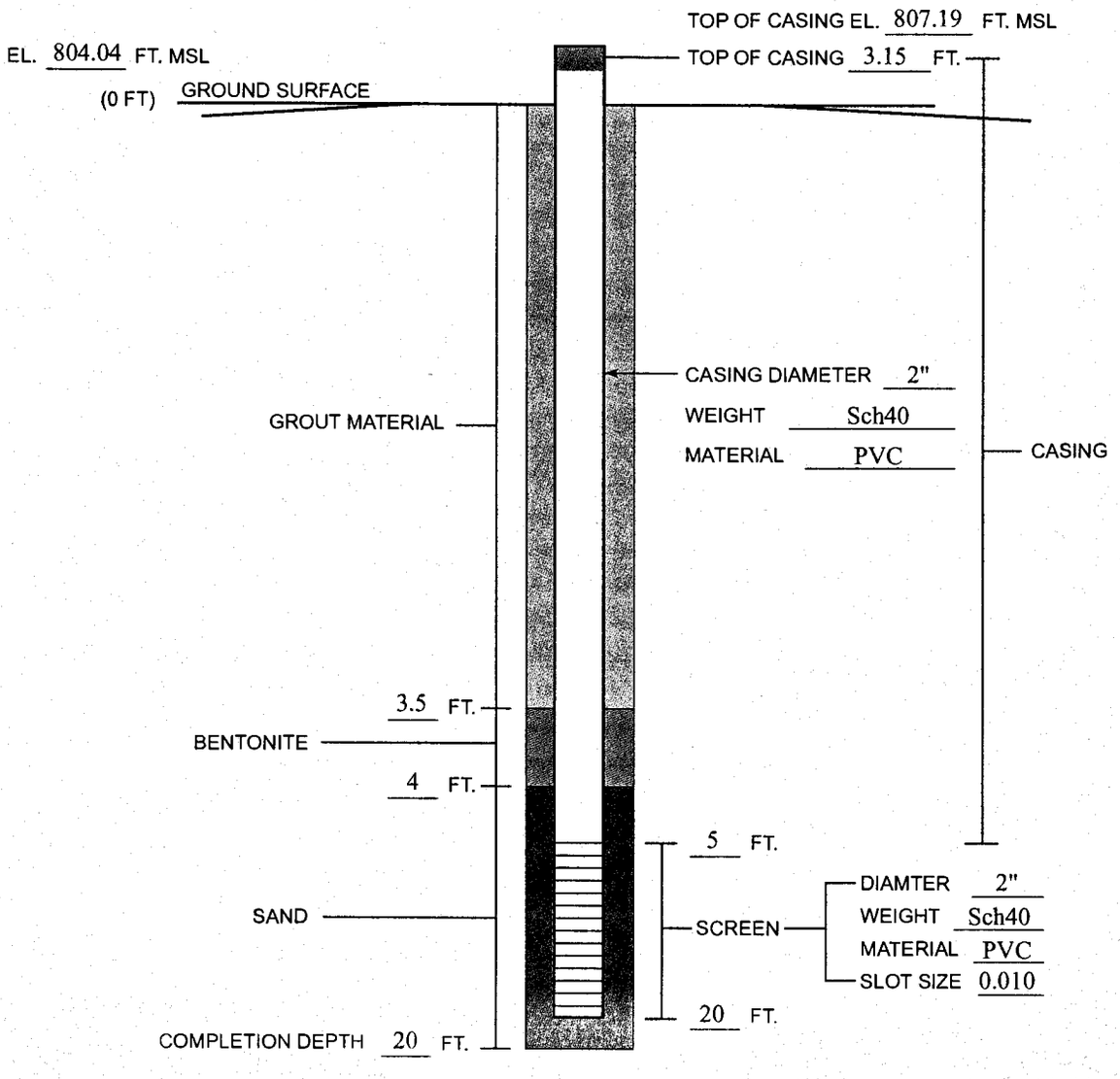


Figure A-30. Piezometer construction diagram for MW-9RR (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: MW-9RR
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 15.91 ft (24 hrs)
8. DATE DRILLED: 11/28/2001

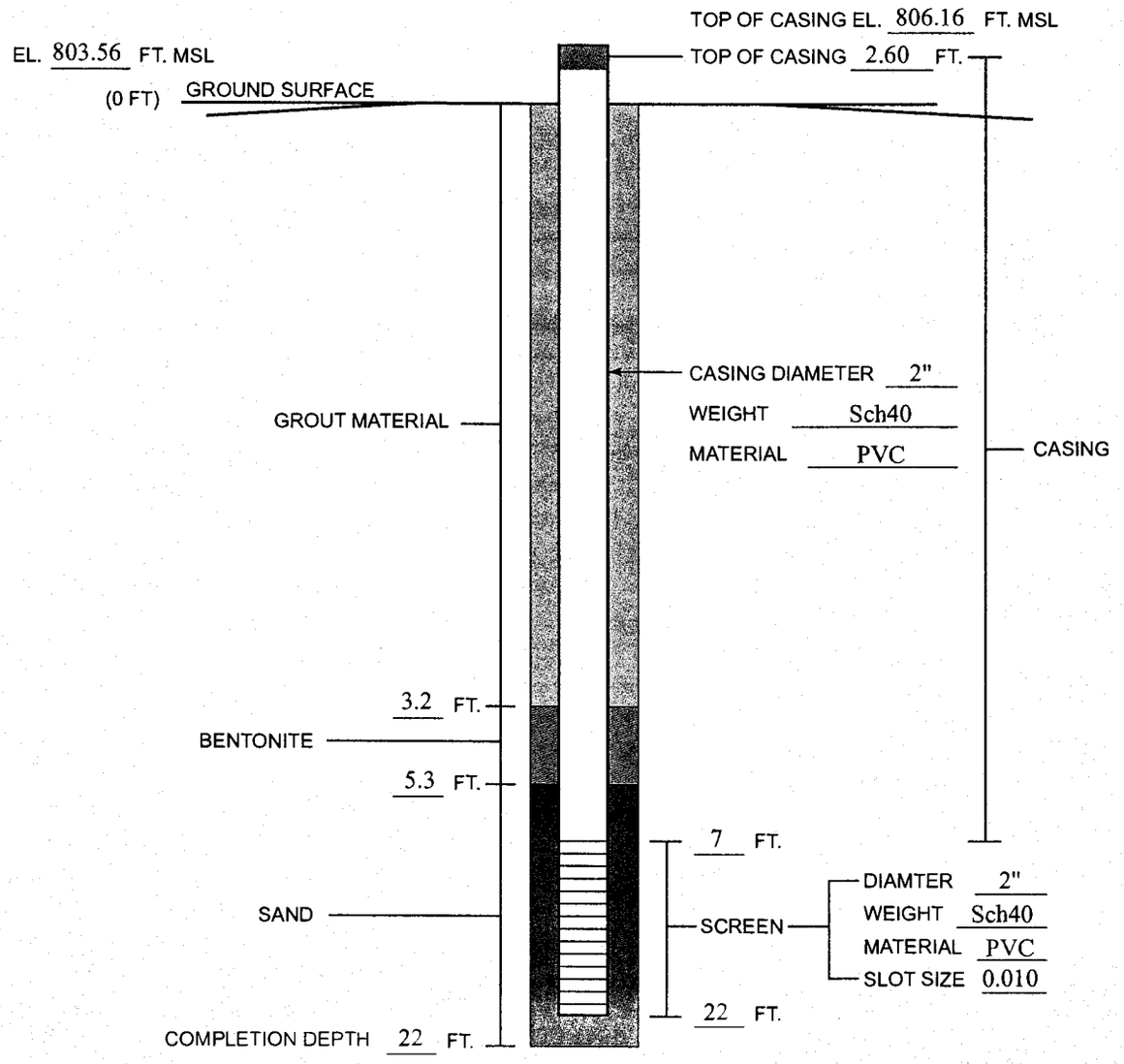


Figure A-31. Piezometer construction diagram for MW-10R (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: MW-10R
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 18.88 ft (24 hrs)
8. DATE DRILLED: 6/26/2000

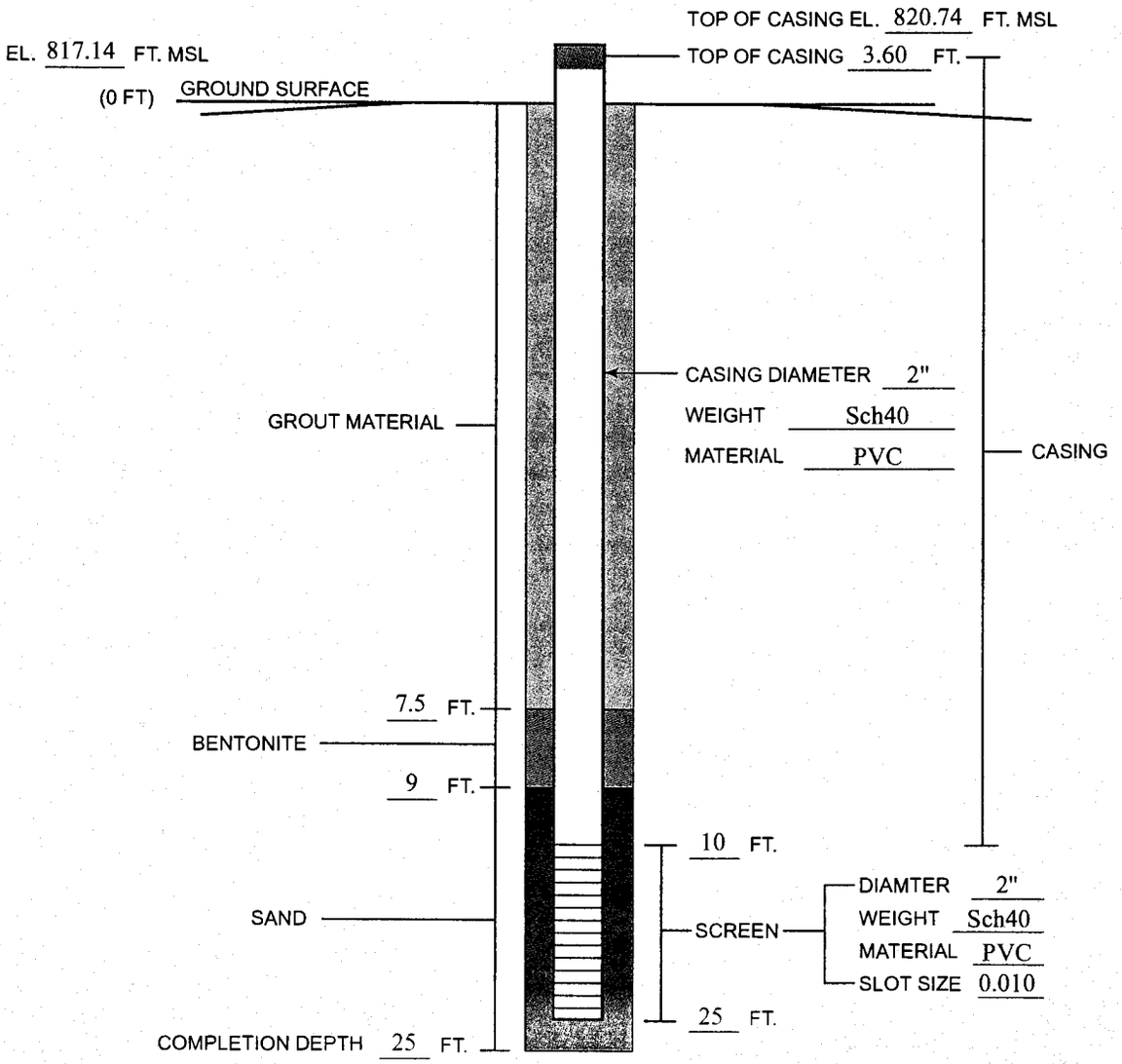


Figure A-32. Piezometer construction diagram for MW-16 (this diagram is not to scale)

PIEZOMETER CONSTRUCTION DIAGRAM

1. DRILLING CONTRACTOR: Geologic Explorations
2. REGISTRATION NUMBER: 2345
3. PIEZOMETER NUMBER: MW-16
4. TOWN: Statesville
5. COUNTY: Iredell
6. OWNER: Iredell County Landfill
7. STATIC WATER LEVEL BELOW TOP OF CASING: 8.74 ft (24 hrs)
8. DATE DRILLED: 6/27/2000

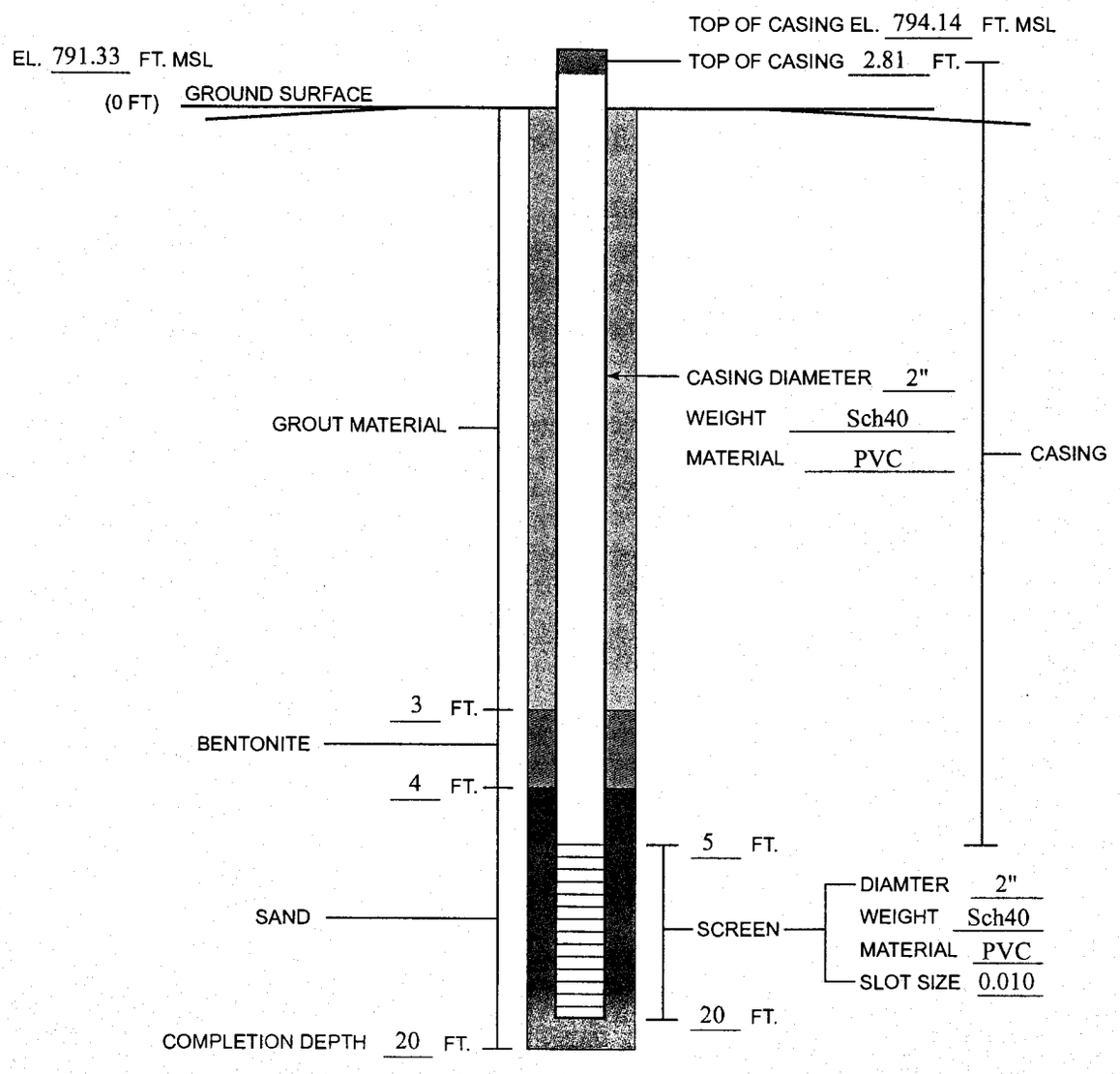


Figure A-33. Well construction record for CD-1

CD-1 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

APR 19 2002 GEOLOGIC ENGINEERING SERVICES COMPANY

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 11/26/01
5. TOTAL DEPTH: 32.7'
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 27.57' FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.30 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 23'-32.7'

DEPT From	To	DRILLING LOG Formation Description
0	7	Sandy Silt-Y.R.
7	15	Silty Sand-Br.Y.
15	16	Clayey Silt-Y.R.
16	32.7	Sandy Silt-B.Y.

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From	+2.30	To 17.7 Ft.	2"	Sch 40	PVC
From		To Ft.			
From		To Ft.			

13. GROUT:

	Depth		Material	Method
From	0	To 12.5 Ft.	Portland Bentonite	Slurry Pour
From	12.5	To 15.5 Ft.	Bentonite	Pour

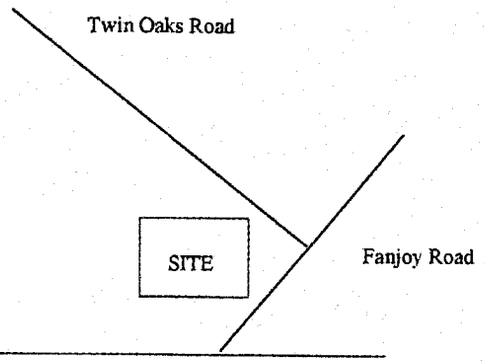
14. SCREEN:

	Depth		Diameter	Slot Size	Material
From	17.7	To 32.7 Ft.	2 in.	.010 in.	PVC
From		To Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From	15.5	To 32.7 Ft.	20-40	Fine Silica Sand
From		To Ft.		

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mark K. Gettys

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-34. Well construction record for CD-2

CD-2 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 11/26/01 & 11/27/01
5. TOTAL DEPTH: 45.00
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 38.96 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.50 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 36.46'-45'

DEPT From	DEPT To	DRILLING LOG Formation Description
0	15	Clayey Silt-R
15	45	Silty Sand-Br.Y.

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth	Diameter	Wall Thickness or Weight/Ft.	Material
From +2.50	To 30 Ft.	2"	Sch 40	PVC
From	To Ft.			
From	To Ft.			

13. GROUT:

	Depth	Material	Method
From 0	To 25.3 Ft.	Portland Bentonite	Slurry Pour
From 25.3	To 27.8 Ft.	Bentonite	Pour

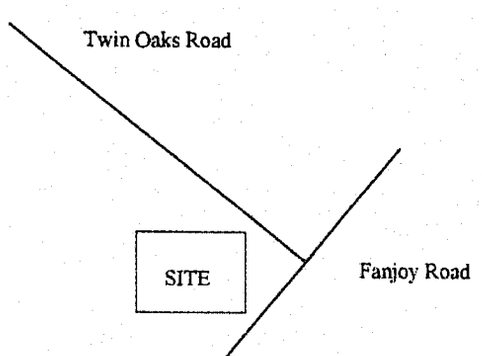
14. SCREEN:

	Depth	Diameter	Slot Size	Material
From 30	To 45 Ft.	2 in.	.010 in.	PVC
From	To Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth	Size	Material
From 27.8	To 45 Ft.	20-40	Fine Silica Sand
From	To Ft.		

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

mark K. Gettys

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-35. Well construction record for CD-3

CD-3 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)- 878-5430
Area code- Phone number

4. DATE DRILLED 11/27/01
5. TOTAL DEPTH: 37.00
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 31.78 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 3.00 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 28.78'-37'

DRILLING LOG

DEPT From	DEPT To	Formation Description
0	3	Silty Sand-Y.R.
3	15	Sandy Lean Clay-R
15	25	Clayey Silt-R.B.
25	37	Sandy Silt-B.Y.

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +3.00	To 22	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 17.9	Ft.	Portland Bentonite	Slurry Pour
From 17.9	To 20.0	Ft.	Bentonite	Pour

14. SCREEN:

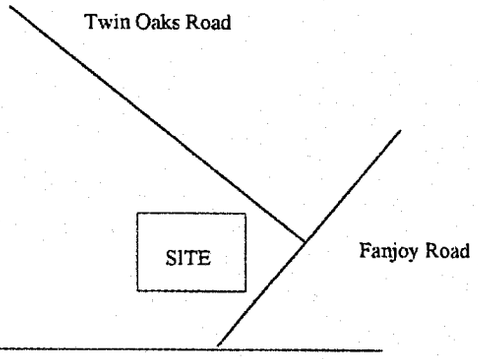
	Depth		Diameter	Slot Size	Material
From 22	To 37	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 20	To 37	Ft.	20-40	Fine Silica Sand
From	To	Ft.		

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mark K. Gettys

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-36. Well construction record for CD-4

CD-4 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 11/26/01
5. TOTAL DEPTH: 45.00
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 33.70 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.60 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 31.10'-45'

DEPT From	DEPT To	DRILLING LOG Formation Description
0	3	Silty Sand-B
3	15	Clayey Silt-R
15	45	Silty Sand

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +2.60	To 29.45	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 22.5	Ft.	Portland Bentonite	Slurry Pour
From 22.5	To 28.15	Ft.	Bentonite	Pour

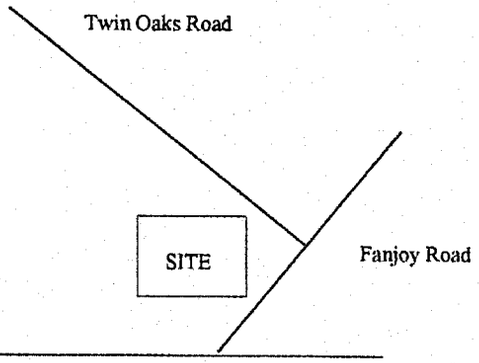
14. SCREEN:

	Depth		Diameter		Slot Size		Material
From 29.45	To 44.45	Ft.	2	in.	.010	in.	PVC
From	To	Ft.		in.		in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 28.15	To 45.00	Ft.	20-40	Fine Silica Sand
From	To	Ft.		

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Mark K. Gettys
SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-37. Well construction record for CD-5

CD-5 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 11/27/01
5. TOTAL DEPTH: 50.00'
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 38.47 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.00 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 36.47'-50.00'

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

DEPT From	DEPT To	DRILLING LOG Formation Description
0	7	Clayey Silt-Y.R.
7	15	Sandy Silt-Y.R.
15	30	Silty Sand-B.Y.
30	45	Sandy Silt-Saprolite
45	50	Clayey Silt-Saprolite

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +2.00	To 33	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 28.8	Ft.	Portland Bentonite	Slurry Pour
From 28.8	To 30.5	Ft.	Bentonite	Pour

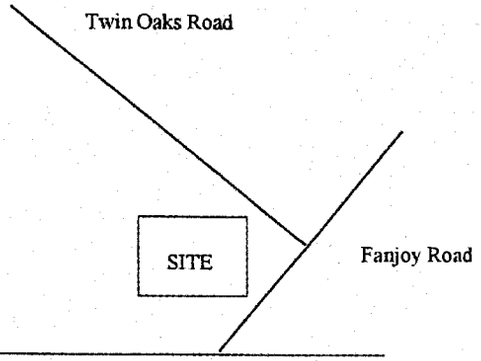
14. SCREEN:

	Depth		Diameter	Slot Size	Material
From 33	To 48	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 30.5	To 50	Ft.	20-40	Fine Silica Sand
From	To	Ft.		

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

mark K. Gettys
SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-38. Well construction record for CD-6

CD-6 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 11/27/01
5. TOTAL DEPTH: 23.00'
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 13.48 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 3.50 FT. Above Land Surface*
***Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.**
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 9.98'-23.00'

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

DEPT From	DEPT To	DRILLING LOG Formation Description
0	7	Sandy Silt-R.
7	23	Silty Sand-Saprolite

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +3.5	To 8	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 3.6	Ft.	Portland Bentonite	Slurry Pour
From 3.6	To 6	Ft.	Bentonite	Pour

14. SCREEN:

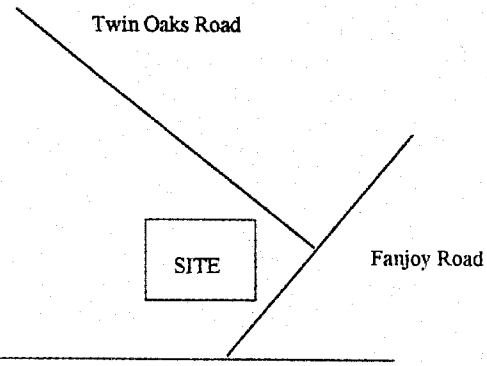
	Depth		Diameter	Slot Size	Material
From 8	To 23	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 6	To 23	Ft.	20-40	Fine Silica Sand
From	To	Ft.		

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

mark K. Gettys

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-39. Well construction record for CD-7

CD-7 WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Mark Gettys CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME Geologic Explorations PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piezometer

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
Twin Oaks Road
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

3. OWNER: Iredell County Landfill
Address 3260 Twin Oaks Rd
(Street or Route No.)
Statesville NC 28625
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 11/27/01
5. TOTAL DEPTH: 21.5'
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: 13.95 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.1 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): 11.85'-21.5'
11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +2.10	To 5	Ft.	2"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 1	Ft.	Portland Bentonite	Slurry Pour
From 1	To 3	Ft.	Bentonite	Pour

14. SCREEN:

	Depth		Diameter		Slot Size		Material
From 5	To 20	Ft.	2	in.	.010	in.	PVC
From	To	Ft.		in.		in.	

15. SAND/GRAVEL PACK:

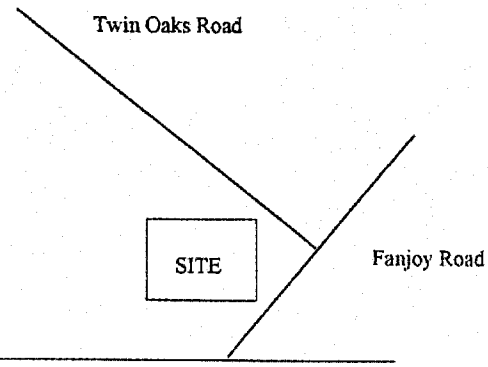
	Depth		Size	Material
From 3	To 21.5	Ft.	20-40	Fine Silica Sand
From	To	Ft.		

16. REMARKS: _____

Topographic/Land setting
☐ Ridge ■ Slope ☐ Valley ☐ Flat
(check appropriate box)
Latitude/longitude of well location
35.45/-80.45
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

DEPT From	To	DRILLING LOG Formation Description
0	7	Silty Sand
7	21.5	Sandy Silt-Lt.B. to B.

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

mark K. Gettys
SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-40. Well construction record for CD-8S

WELL CONSTRUCTION RECORD

North Carolina - Department. of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Ronald Barron CERTIFICATION # 2091

WELL CONTRACTOR COMPANY NAME Engineering Tectonics PHONE # (336) 724-6894

STATE WELL CONSTRUCTION PERMIT# _____ (if applicable) ASSOCIATED WQ Permit # _____ (if applicable)

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☒ Recovery ☐ Heat Pump water Injection ☐ other ☐ If other, list use: CD-8S

2. WELL LOCATION:
Nearest Town: Statesville County Iredelle
3260 Twin Oaks Rd.
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/ Land setting
☐ Ridge ☐ slope ☒ valley ☐ Flat
(check appropriate box)
Latitude/Longitude of well location
n/a
(degrees/minutes/seconds)
Latitude/Longitude source: ☐ GPS ☐ Topographic map
(check box)

3. OWNER Iredell Co. Landfill
Address 3260 Twin Oaks Rd.
(Street or Route No)
Statesville NC 28687
City or Town State Zip code
(704)- 878-5430
Area Code- Phone number

4. DATE DRILLED 10-21-03
5. TOTAL DEPTH 16.0
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
7. STATIC WATER LEVEL Below Top of Casing: 10.18 FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 3.0 FT. Above Land Surface
Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C.0118.
9. YIELD (gpm): n/a METHOD OF TEST _____
10. WATER ZONES (depth): n/a

DEPTH From	To	DRILLING LOG Formation Description
0	16	Silty Sand

11. DISINFECTION: Type n/a Amount n/a
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +3.0	To 16.0	Ft	2"	sch 40	PVC
From	To	Ft			
From	To	Ft			

13. GROUT:

	Depth		Material	Method
From 0	To 3.0	Ft	Portland	Poured
From	TO	Ft		

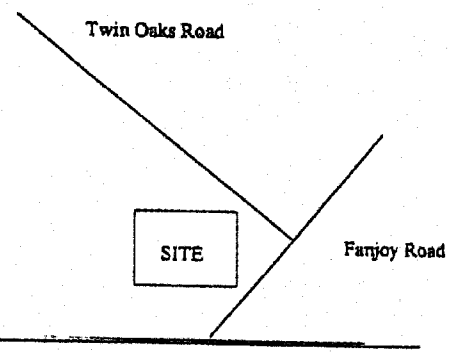
14. SCREEN

	Depth		Diameter		Slot Size		Material
From 6.0	To 16.0	Ft.	2	in.	.010	in.	PVC
From	To	Ft.		in.		in.	

15. SAND/GRAVEL PACK

	Depth		Size	Material
From 5.0	To 16.0	Ft	#3	Sand
From 3.0	To 5.0	Ft	3/8	Bentonite

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Ronald T. Barron - For Engineering Tectonics 10-21-03

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 133-3221, within 30 days.

GW-1 REV. 07/2001

Figure A-41. Well construction record for CD-8M

CD-8M WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Jonathan Pfohl CERTIFICATION # 3301

WELL CONTRACTOR COMPANY NAME Antler Environmental for MESCO PHONE # (919)772-5393

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☐ Recovery ☐ Heat Pump Water Injection ☐ Other ■ If Other, List Use Temp. Piez. for Hydro Study

2. WELL LOCATION:
Nearest Town: Statesville County Iredell
3260 Twin Oaks Rd.
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

3. OWNER: Iredell Co .Landfill
Address Same as above
(Street or Route No.)
Statesville NC 28687
City or Town State Zip Code
(704)-878-5430
Area code- Phone number

4. DATE DRILLED 10/21/03
5. TOTAL DEPTH: 23 ft.
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ■
7. STATIC WATER LEVEL Below Top of Casing: _____ FT. (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.78 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): _____

11. DISINFECTION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From	+2.78 To	21.5 Ft.	3/4"	Sch 40	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From	18 To	21 Ft.	3/8" Bentonite	Pour
From	0 To	18 Ft.	neat cement	Tremie

14. SCREEN:

	Depth		Diameter	Slot Size	Material
From	21.5 To	22.5 Ft.	3/4 in.	.010 in.	PVC
From	To	Ft.	in.	in.	

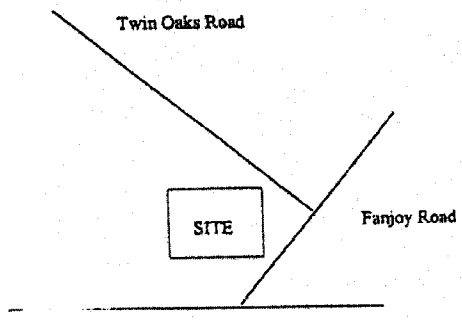
15. SAND/GRAVEL PACK:

	Depth		Size	Material
From	21 To	23 Ft.	#3	Silica Sand
From	To	Ft.		

Topographic/Land setting
☐ Ridge ☐ Slope ☐ Valley ■ Flat
(check appropriate box)
Latitude/longitude of well location
35.764167/-80.826388
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ■ Topographic map
(check box)

DEPT From	To	DRILLING LOG Formation Description
0	23'	Silty Sand

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS: Constructed in Same Borhole as CD-8D Temp. piez. for site study. Boring Drilled By Engineering Technics

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

_____
SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days. GW-1 REV. 07/2001

Figure A-42. Well construction record for CD-8D

WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Ronald Barron CERTIFICATION # 2091

WELL CONTRACTOR COMPANY NAME Engineering Tectonics PHONE # (336) 724-6851

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ Permit # (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☒ Recovery ☐ Heat Pump water Injection ☐ other ☐ If other, list use: CD-8D

2. WELL LOCATION:
Nearest Town: Statesville County Iredelle
3260 Twin Oaks Rd.
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/ Land setting
☐ Ridge ☐ slope ☒ valley ☐ Flat
(check appropriate box)
Latitude/Longitude of well location
n/a
(degrees/minutes/seconds)
Latitude/Longitude source: ☐ GPS ☐ Topographic map
(check box)

3. OWNER Iredell Co. Landfill
Address Same as above
(Street or Route No)
Statesville NC 28687
City or Town State Zip code
(704)- 875-5430
Area Code- Phone number

4. DATE DRILLED 10-21-03
5. TOTAL DEPTH 38.0
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
7. STATIC WATER LEVEL Below Top of Casing: 9.58 FT. (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 3.0 FT. Above Land Surface
Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C.0118.
9. YIELD (gpm): n/a METHOD OF TEST _____
10. WATER ZONES (depth): n/a

DEPTH From	DEPTH To	DRILLING LOG Formation Description
0	38	Silty Sand

11. DISINFECTION: Type n/a Amount n/a
12. CASING:

	Depth To		Diameter	Wall Thickness or Weight/Ft.	Material
From +3.0	28.0	Ft	2"	sch 40	PVC
From	To	Ft			
From	To	Ft			

13. GROUT:

	Depth To		Material	Method
From 0	24.0	Ft	Portland	Poured
From	TO	Ft		

14. SCREEN

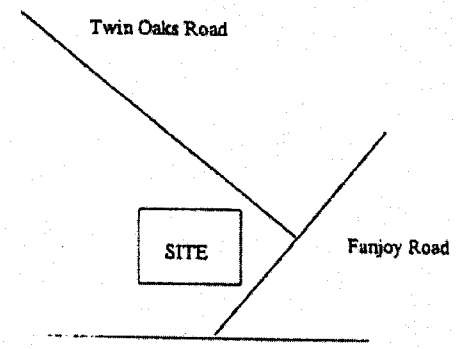
	Depth To		Diameter	Slot Size	Material
From 28.0	38.0	Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK

	Depth To		Size	Material
From 26.0	38.0	Ft	#3	Sand
From 24.0	26.0	Ft	3/8	Bentonite

16. REMARKS _____

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Ronald F. Barron For Engineering Tectonics 10-21-03

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 133-3221, within 30 days.

GW-1 REV. 07/2001

Figure A-43. Well construction record for MW-1A

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO.: _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: GAI Consultants
DRILLER REGISTRATION NUMBER: 446
STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

WELL LOCATION: (Show sketch of the location below)
Nearest Town: Statesville County: Iredell
SR 2465
(Road, Community, or Subdivision and Lot No.)
OWNER Iredell County
ADDRESS P O Box 788
(Street or Route No.)
Statesville NC 28677
City or Town State Zip Code
DATE DRILLED 4-27-93 USE OF WELL Monitoring
TOTAL DEPTH 40'
CUTTINGS COLLECTED YES [ ] NO [X]
DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
STATIC WATER LEVEL Below Top of Casing: 11.3 FT.
(Use "+" if Above Top of Casing)
TOP OF CASING IS 2.5 FT. Above Land Surface*
Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
YIELD (gpm): N/A METHOD OF TEST _____
WATER ZONES (depth): 8.8 - bottom
CHLORINATION: Type N/A Amount _____
CASING:

	Depth From	To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
	0	29		2"	Sch 40	PVC

GROUT:

	Depth From	To	Ft.	Material	Method
	0	14		cement	tremie
	14	28		bentonite	pellet

SCREEN:

	Depth From	To	Ft	Diameter	in.	Slot Size	in.	Material
	29	39		2		.010		PVC

SAND/GRAVEL PACK:

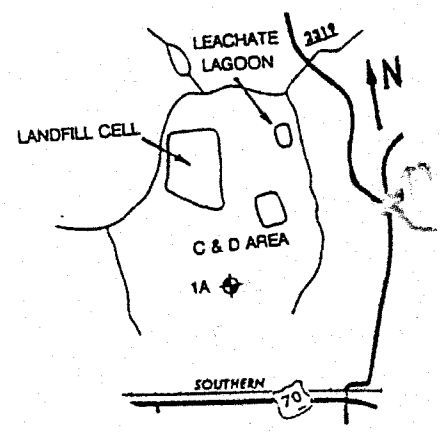
	Depth From	To	Ft.	Size	Material
	28	40		NC 25	sand

REMARKS: Monitoring Well 1A

DEPTH From	To	DRILLING LOG Formation Description
0	9'	Orange-brown sandy clay
9	23	Brown silty sandy clay w/ mica
23	40	Brown-gray silty clayey sand

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Wendell W. Parker 5-4-93
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9-91
Submit original to Division of Environmental Management and copy to well owner

Figure A-44. Well construction record for MW-1B

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: GAI Consultants

DRILLER REGISTRATION NUMBER: 446

STATE WELL CONSTRUCTION PERMIT NUMBER: N/A

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Statesville County: Iredell
SR 2465
(Road, Community, or Subdivision and Lot No.)

2. OWNER Iredell County
ADDRESS P O Box 788
(Street or Route No.)
Statesville NC 28677
City or Town State Zip Code

3. DATE DRILLED 4-28-93 USE OF WELL Monitoring
4. TOTAL DEPTH 21'
5. CUTTINGS COLLECTED YES [ ] NO [X]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: 11.6 FT.
(Use "+" If Above Top of Casing)
8. TOP OF CASING IS 2.5 FT. Above Land Surface*
* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST _____
10. WATER ZONES (depth): 9.1 - bottom
11. CHLORINATION: Type N/A Amount _____
12. CASING:

	Depth From	To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
	0	5		2"	Scn 40	PVC

13. GROUT:

	Depth From	To	Ft.	Material	Method
	0	3		cement	
	3	4		bentonite	pellet

14. SCREEN:

	Depth From	To	Ft.	Diameter		Slot Size		Material
	5	20		2	in.	.010	in.	PVC
					in.		in.	
					in.		in.	

15. SAND/GRAVEL PACK:

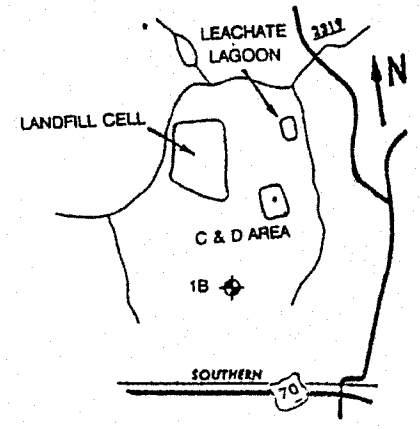
	Depth From	To	Ft.	Size	Material
	4	21		NC 25	sand

16. REMARKS: Monitoring Well 1B

DEPTH From	To	DRILLING LOG Formation Description
0	9'	Orange-brown sandy clay
9	20	Brown silty sandy clay with mica

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Wendell W. Parks 5-4-93
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner

Figure A-45. Well construction record for MW-1C

WELL CONSTRUCTION RECORD

North Carolina - Department. of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Ronald Barron CERTIFICATION # 2091

WELL CONTRACTOR COMPANY NAME Engineering Tectonics PHONE # (828) 724-6997

STATE WELL CONSTRUCTION PERMIT# (if applicable) ASSOCIATED WQ Permit # (if applicable)

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐ Monitoring ☒ Recovery ☐ Heat Pump water Injection ☐ other ☐ If other, list use: MW-1C

2. WELL LOCATION:
Nearest Town: Statesville County Iredelle
3260 Twin Oaks Rd.
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/ Land setting
☐ Ridge ☐ slope ☐ valley ☒ Flat
(check appropriate box)
Latitude/Longitude of well location
n/a
(degrees/minutes/seconds)
Latitude/Longitude source: ☐ GPS ☐ Topographic map
(check box)

3. OWNER Iredell Co. Land Fill
Address Same as above
(Street or Route No)
Statesville NC 28687
City or Town State Zip code
(704) - 878 - 5430
Area Code- Phone number

4. DATE DRILLED 10-20-03
5. TOTAL DEPTH 34.0
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
7. STATIC WATER LEVEL Below Top of Casing: 2.23 FT. (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 3.0 FT. Above Land Surface
Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C.0118.
9. YIELD (gpm): n/a METHOD OF TEST
10. WATER ZONES (depth): n/a

DEPTH From	DEPTH To	DRILLING LOG Formation Description
0	9	Sandy Clay
9	23	Silty Clay
23	34	Clayey Sand

11. DISINFECTION: Type n/a Amount n/a
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From	+3.0 To	19.0 Ft	2"	sch.40	PVC
From	To	Ft			
From	To	Ft			

13. GROUT:

	Depth		Material	Method
From	0 To	15.0 Ft	Portland	Poured
From	TO	Ft.		

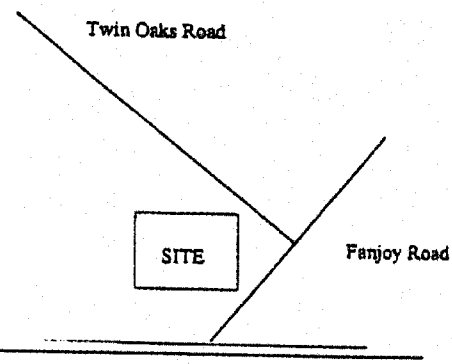
14. SCREEN

	Depth		Diameter	Slot Size	Material
From	19.0 To	34.0 Ft.	2 in.	.010 in.	PVC
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK

	Depth		Size	Material
From	17.0 To	34.0 Ft	#3	Sand
From	15.0 To	17.0 Ft	3/8	Bentonite

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



16. REMARKS

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

Ronald T. Barron For Engineering Tectonics 10-20-03

SIGNATURE OF PERSON CONSTRUCTING THE WELL DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 133-3221, within 30 days.

GW-1 REV. 07/2001

Figure A-46. Well construction record for MW-9R

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Geologic Exploration, Inc.

FOR OFFICE USE ONLY
QUAD NO ____ SERIAL NO ____
Lat ____ Long ____ RO ____
Minor Basin ____
Basin Code ____
Header Ent ____ GW-1 Ent ____

STATE WELL CONSTRUCTION
DRILLER REGISTRATION NUMBER: 1175 PERMIT NUMBER: ____

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: STATESVILLE County: IREDELL
MT. OLIVE RD.
(Road, Community, or Subdivision and Lot No.)
2. OWNER IREDELL CO. SOLID WASTE
ADDRESS 354 TWIN OAKS RD.
(Street or Route No.)
STATESVILLE NC 28677
City or Town State Zip Code
3. DATE DRILLED 6-29-00 USE OF WELL MONITOR
4. TOTAL DEPTH 20.0 FEET
5. CUTTINGS COLLECTED YES | | NO |X|
6. DOES WELL REPLACE EXISTING WELL? YES | | NO |X|
7. STATIC WATER LEVEL Below Top of Casing: ____ FT
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.5 FT Above Land Surface*
*Casing Terminated at/or below land surface is illegal unless a variance
is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount N/A
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From 0.0	To 5.0	Ft.	2 INCH	SCH 40	PVC
From ____	To ____	Ft.	____	____	____
From ____	To ____	Ft.	____	____	____

13. GROUT:

	Depth		Material	Method
From 0.0	To 3.0	Ft.	PORTLAND BENTONITE	SLURRY
From ____	To ____	Ft.	____	____

14. SCREEN:

	Depth		Diameter		Slot Size		Material
From 5.0	To 20.0	Ft.	2.0	in.	.010	in.	PVC
From ____	To ____	Ft.	____	in.	____	in.	____
From ____	To ____	Ft.	____	in.	____	in.	____

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 6.0	To 20.0	Ft.	20-40	FINE SILICA SAND
From ____	To ____	Ft.	____	____

DEPTH DRILLING LOG

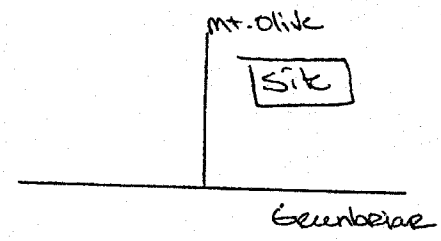
From	To	Formation Description
0.0'	5.0'	RED CLAY
5.0'	20.0'	ORANGE SANDY SILTY CLAY

If additional space is needed use back of form

MUNICIPAL ENGINEERING SERVICES COMPANY RECEIVED JUL 14 2000

LOCATION OF SKETCH

(Show direction and distance from at least two State Roads, or othe map reference points.)



16. REMARKS: MW-9R BENTONITE SEAL FROM 3.0 TO 4.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

D. Millard 7/12/00
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

Figure A-47. Well construction record for MW-9RR

WELL CONSTRUCTION RECORD

North Carolina – Department of Environmental and Natural Resources – Division of Water Quality – Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) MARK GETTYS CERTIFICATION # 2345

WELL CONTRACTOR COMPANY NAME GEOLOGIC EXPLORATION, INC. PHONE # (704) 872-7686

STATE WELL CONSTRUCTION PERMIT# (if applicable) _____ ASSOCIATED WQ PERMIT# (if applicable) _____

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐
Monitoring ☒ Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, list Use _____

2. WELL LOCATION:
Nearest Town: STATESVILLE County IREDELL
TWIN OAKS RD.
(Street Name, Numbers, Community, Subdivision, Lot No., Zip Code)

Topographic/Land setting
☐ Ridge ☐ Slope ☐ Valley ☒ Flat
(check appropriate box)
Latitude/longitude of well location
_____
(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ☐ Topographic map
(check box)

3. OWNER: IREDELL COUNTY LANDFILL
Address 3260 TWIN OAKS RD.
(Street or Route No.)
STATESVILLE NC 28625
City or Town State Zip Code
( ) _____
Area Code – Phone Number

4. DATE DRILLED 11-28-01
5. TOTAL DEPTH: 22.0 FEET
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.5 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. DISINFECTION: Type N/A Amount _____

DEPTH From	To	DRILLING LOG Formation Description
0.0	10.0	TAN SANDY SILT
10.0	22.0	YELLOW SANDY SILT

12. CASING:

	Depth			Diameter	Wall Thickness or Weight/Ft.	Material
From	0.0	To	7.0 Ft	2 INCH	SCH 40	PVC
From		To	Ft.			
From		To	Ft.			

13. Grout:

	Depth			Material	Method
From	0.0	To	3.0 Ft.	Portland Bentonite	Slurry
From		To	Ft.		

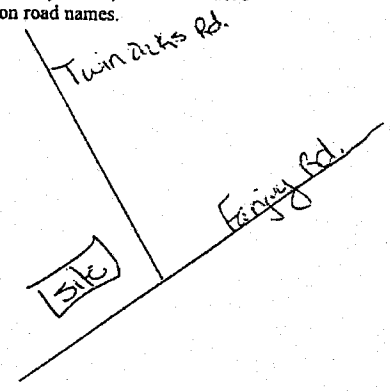
14. SCREEN:

	Depth			Diameter	Slot Size	Material
From	7.0	To	22.0 Ft.	2.0 in.	.010 in	PVC
From		To	Ft.	in.	in	

15. SAND/GRAVEL PACK:

	Depth			Size	Material
From	5.0	To	22.0 Ft	20-40	FINE SILICA SAND
From		To	Ft.		

LOCATION SKETCH
Show direction and distance in miles from at least two State Roads or County Roads, inculed the road numbers and common road names.



16. REMARKS: MW9RR BENTONITE SEAL FROM 3.0 TO 5.0 FEET

I DO HEARBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

mark K. Gettys
SIGNATURE OF PERSON CONSTRUCTING THE WELL

12-7-01
DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center – Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days

Figure A-48. Well construction record for MW-10R

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Geologic Exploration, Inc.

FOR OFFICE USE ONLY
QUAD NO ____ SERIAL NO ____
Lat ____ Long ____ RO ____
Minor Basin ____
Basin Code ____
Header Ent ____ GW-1 Ent ____

STATE WELL CONSTRUCTION
DRILLER REGISTRATION NUMBER: 1175 PERMIT NUMBER: ____

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: STATESVILLE County: IREDELL
MT. OLIVE RD.
(Road, Community, or Subdivision and Lot No.)
2. OWNER IREDELL CO. SOLID WASTE
ADDRESS 354 TWIN OAKS RD.
(Street or Route No.)
STATESVILLE NC 28677
City or Town State Zip Code
3. DATE DRILLED 6-29-00 USE OF WELL MONITOR
4. TOTAL DEPTH 25.0 FEET
5. CUTTINGS COLLECTED YES | | NO |X|
6. DOES WELL REPLACE EXISTING WELL? YES | | NO |X|
7. STATIC WATER LEVEL Below Top of Casing: ____ FT
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.5 FT Above Land Surface*
*Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount N/A
12. CASING:

	Depth From	To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
	0.0	10.0		2 INCH	SCH 40	PVC

13. GROUT:

	Depth From	To	Ft.	Material	Method
	0.0	8.0		PORTLAND BENTONITE	SLURRY

14. SCREEN:

	Depth From	To	Ft.	Diameter		Slot Size		Material
	10.0	15.0		2.0	in.	.010	in.	PVC
					in.		in.	
					in.		in.	

15. SAND/GRAVEL PACK:

	Depth From	To	Ft.	Size	Material
	9.0	25.0		20-40	FINE SILICA SAND

16. REMARKS: MW-10R BENTONITE SEAL FROM 8.0 TO 9.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

D Williard 7-12-00
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

DEPTH From	To	DRILLING LOG Formation Description
0.0'	5.0'	RED CLAY
5.0'	15.0'	ORANGE SILTY CLAY
15.0'	25.0'	BROWN SANDY SILT

If additional space is needed use back of form

RECEIVED JUL 14

LOCATION OF SKETCH

(Show direction and distance from at least two State Roads, or othe map reference points.)

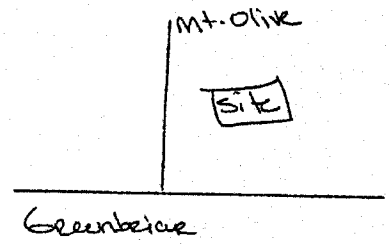


Figure A-49. Well construction record for MW-16

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Geologic Exploration, Inc.

FOR OFFICE USE ONLY
QUAD NO _____ SERIAL NO _____
Lat _____ Long _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent _____ GW-1 Ent _____

STATE WELL CONSTRUCTION
DRILLER REGISTRATION NUMBER: 1175 PERMIT NUMBER: _____

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: STATESVILLE County: IREDELL
MT. OLIVE RD.
(Road, Community, or Subdivision and Lot No.)
2. OWNER IREDELL CO. SOLID WASTE
ADDRESS 354 TWIN OAKS RD.
(Street or Route No.)
STATESVILLE NC 28677
City or Town State Zip Code
3. DATE DRILLED 6-27-00 USE OF WELL MONITOR
4. TOTAL DEPTH 20.0 FEET
5. CUTTINGS COLLECTED YES | | NO |X|
6. DOES WELL REPLACE EXISTING WELL? YES | | NO |X|
7. STATIC WATER LEVEL Below Top of Casing: _____ FT
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2.5 FT Above Land Surface*
*Casing Terminated at/or below land surface is illegal unless a variance
is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount N/A
12. CASING:

From	To	Depth	Diameter	Wall Thickness or Weight/Ft.	Material
0.0	5.0	Ft.	2 INCH	SCH 40	PVC
		Ft.			
		Ft.			

13. GROUT:

From	To	Depth	Material	Method
0.0	3.0	Ft.	PORTLAND BENTONITE	SLURRY
		Ft.		

14. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
5.0	20.0	Ft.	2.0 in.	.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

15. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
4.0	20.0	Ft.	20-40	FINE SILICA SAND
		Ft.		

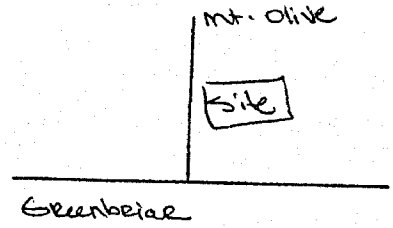
DEPTH DRILLING LOG

From	To	Formation Description
0.0'	5.0'	ORANGE FILL WITH CLAY
5.0'	16.0'	TAN SILTY CLAY
16.0'	20.0'	BROWN PARTIALLY WEATHERED ROCK

If additional space is needed use back of form

LOCATION OF SKETCH

(Show direction and distance from at least two State Roads, or othe map reference points.)



16. REMARKS: MW-16R BENTONITE SEAL FROM 3.0 TO 4.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

D Dillard 7/12/00
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

Figure A-50. Field boring log for CD-1

LOG OF BORING NO. CD-1

Project Iredell G. C&D Project No. G01026.0

Type 8.5" O.D HSA Drilling Company Geologic Explorations

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 10:45 on 11/26/01	
	3-3-3		0-1.5	X	Sandy Silt; Yellowish Red w/ cohesive clay, Root debris, slightly micas., moist	
3	3-3-4		3-4.5	X	Sandy Silt; Yellowish Red w/ (grades of) cohesive Red clay, slightly micas., Dry, No relict fractures,	
5						
7	3-4-6		7-8.5	X	Silty Sand; Brownish yellow fine to med. grained sand interlayered w/ Tan micaceous silt, clay filled relict structure, small black organic silt pockets,	
10						
					15-16.0 Yellowish Red cohesive clayey silt.	
15	4-5-7		15-16.5	X	Sandy Silt; (top to 16.5') Brownish yellow fine grained sand interlayered w/ Light brown micaceous silt, moist	clay to 16' silt from 16'
20	5-6-6		20-21.5	X	Sandy Silt; Brownish yellow fine grained sand interlayered w/ olive gray micas, silt, Yellowish red clayey silt nodules, Pink & white feldspar ▽ WD ~ 23' BGS Partings, Moist	
				▽		
25						
					Stopped & had well set @ 12:15 P.M	
					Well Dimensions	
30					Screen 32.7 - 17.7	
					Sand 32.7 - 15.5'	
					Bent 15.5 - 12.5'	
					Stickup = 2.3' T.M	
35					Water Levels	
					W.D = 23' BGS	
					Set 27.57' BT.OP	
40					24 Hrs 27.57' BTOP	

Completion Depth 32.7 Depth to Water in Boring _____

Date 11/26/01 Field Agent J. Pfohl Location _____

1 of 1

Figure A-51. Field boring log for CD-2

LOG OF BORING NO. CD-2

Project Iredell Co. C&D Project No. G010260

Type 8.5" O.D HSA w/ S.S Drilling Company Geologic Explorations

Municipal Services Corner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 3:00 p.m. 11/26/01	
	6-7-8		0-1.5	X	Clayey Silt; Red, Some fine to Medium grained Sand Fragments, Root Debris, Micas, slightly to Non Cohesive, Dry	
3	4-6-9		3-5.5'	X		
5					Clayey Silt; Red, Fine to Med. grained Sandy Sand, Moderately cohesive, Micas, Dry	
7	4-5-6		7-8.5	X	Clayey Silt; Red, Fine to Med grained Brownish yellow sand, Micas, Moist	
10						
15	4-5-6		15-16.5	X	Silty Sand; Yellowish Red Fine to Med. grained sand, Micaceous Silt, Moist,	
20	4-6-6		20-21.5	X	Silty Sand; Brownish yellow sand w/ interbedded Gray micaceous silt, Small proportion of cohesive red clay. Moist	
25	4-6-7		25-26.5	X	Same as above but more micaceous silt Fraction	
30	7-8-9		30-31.5	X	Silty Sand; Brownish yellow sand w/ lt. Gray Mica, silt, Faint structure & layering	
35	16-28-50/4"		35-36.5	X	Silty Sand - Saprolite Lt. Gray Med. to coarse grained Sand w/ 1.5" Diameter clear Qtz fragment.	
				▽		38' ▽ W.D
40						

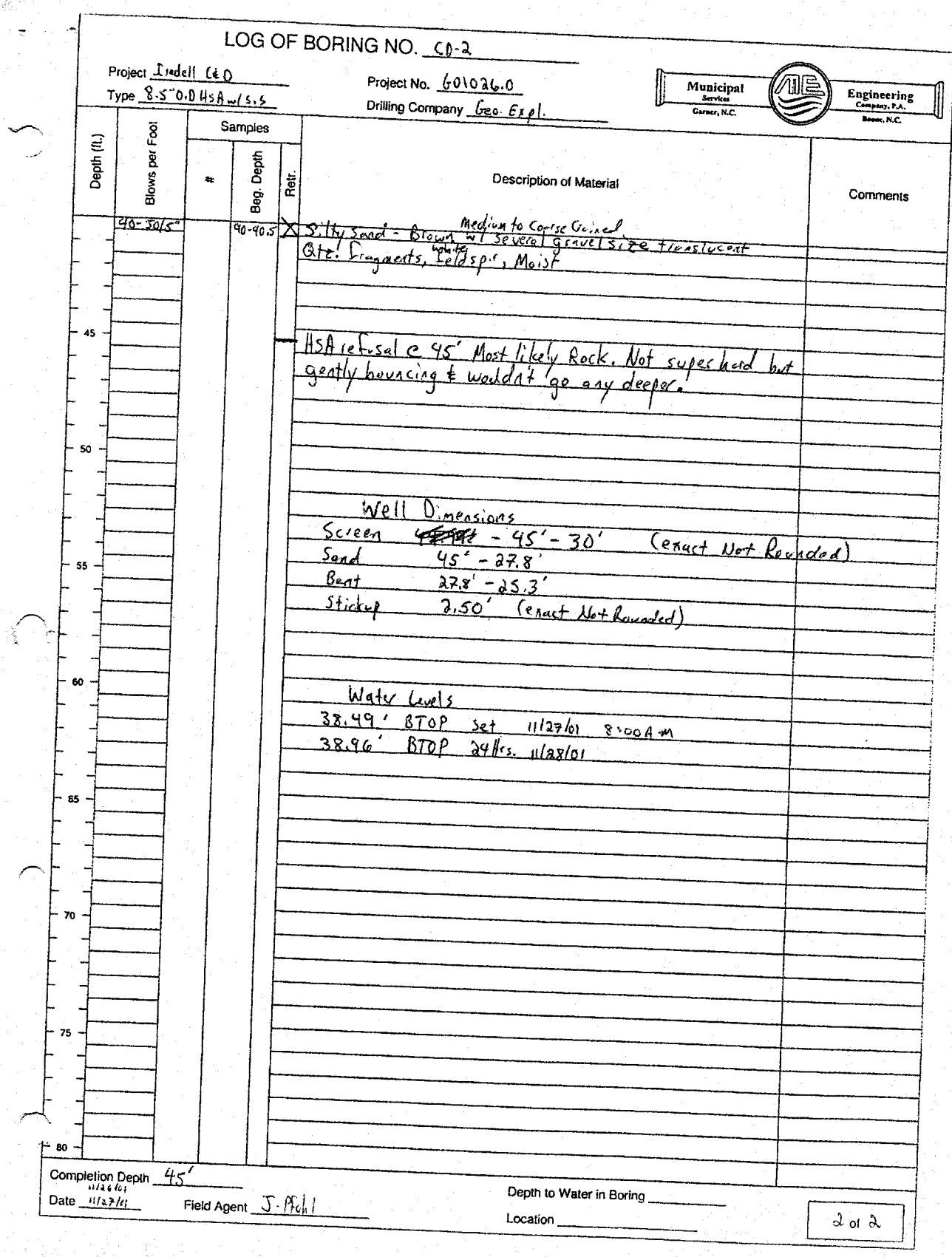
Completion Depth 45' Depth to Water in Boring _____

Date 11/26/01 11/27/01 Field Agent J. Phail Location _____

1 of 2

Figure A-51. Field boring log for CD-2

(*Continued from previous page*)



LOG OF BORING NO. CD-2

Project Iredell C&D
Type 8.5"O.D HSA w/ S.S
Project No. 601026.0
Drilling Company Geo. Expl.

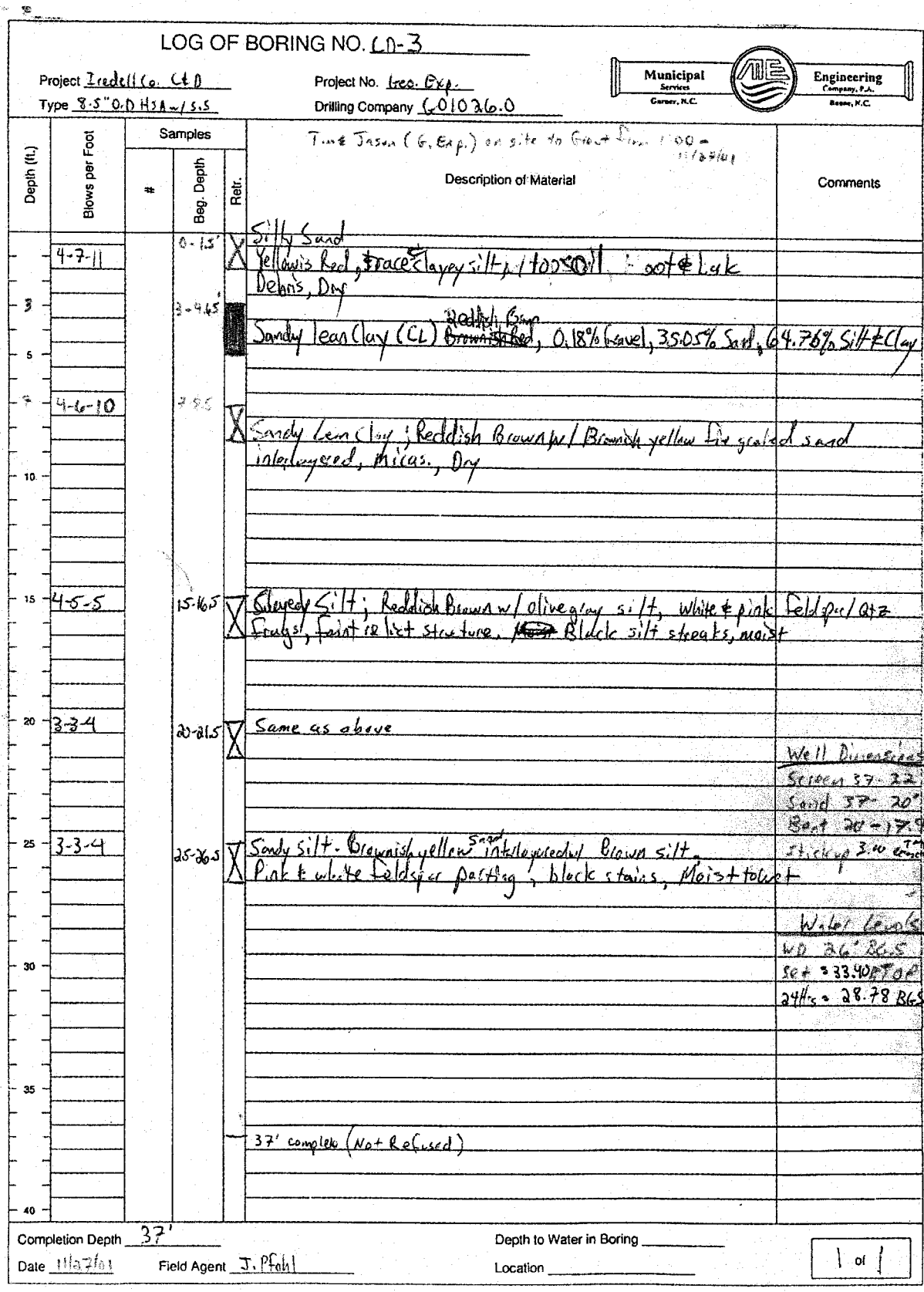
Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
	90-50/5"		90-90.5	X	Silty Sand - Brown w/ Several Gravel Size Medium to Coarse Grained Translucent Qtz. Fragments, White Feldsp.'s, Moist	
45					HSA refusal @ 45' Most likely Rock. Not supershard but gently bouncing & wouldn't go any deeper.	
50					Well Dimensions Screen 45' - 30' (exact Not Rounded) Sand 45' - 27.8' Bent 27.8' - 25.3' Stickup 2.50' (exact Not Rounded)	
55						
60					Water Levels 38.49' BTOP Set 11/27/01 8:00 AM 38.96' BTOP 24 Hrs. 11/28/01	
65						
70						
75						
80						

Completion Depth 45' (11/26/01)
Date 11/27/01
Field Agent J. Pfohl
Depth to Water in Boring _____
Location _____

2 of 2

Figure A-52. Field boring log for CD-3



LOG OF BORING NO. CD-3

Project Iredell Co. C&D
Type 8.5" O.D HSA w/ S.S
Project No. Geo. Exp.
Drilling Company G01026.0

Municipal Services Engineering Company, P.A.
Garner, N.C. Boone, N.C.

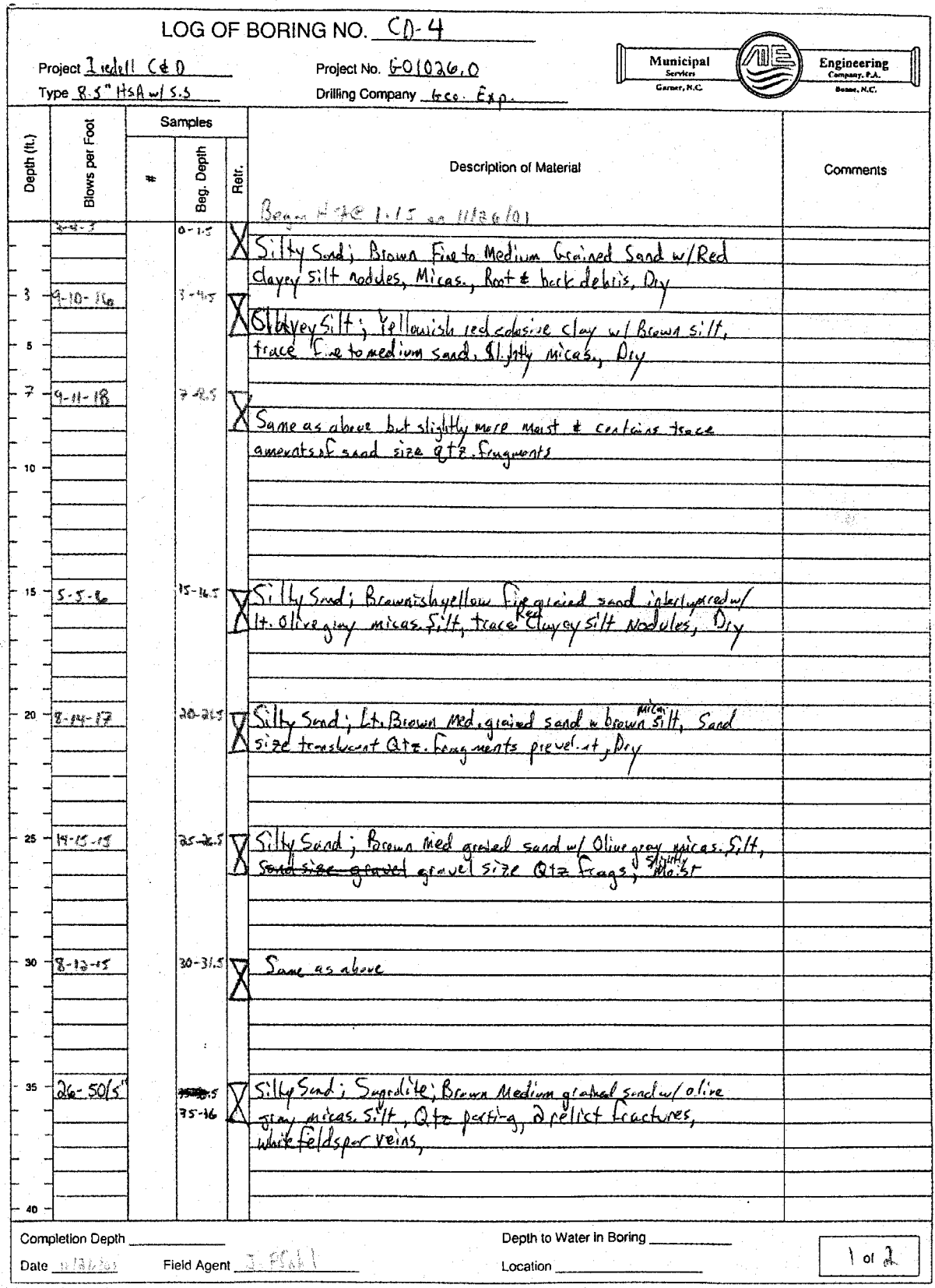
Tim & Jason (G. Exp.) on site to Grout from 1:00 - 11/27/01

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
	4-7-11		0-1.5'	X	Silty Sand Yellowis Red, trace clayey silt, w/ topsoil, root & Lak Debris, Dry	
3			3-4.65'		Sandy lean Clay (CL) ~~Brownish Red~~ Reddish Brown, 0.18% Gravel, 35.05% Sand, 64.76% Silt & Clay	
5						
7	4-6-10		7-8.5	X	Sandy Lean Clay; Reddish Brown w/ Brownish yellow fine grained sand interlayered, micas., Dry	
10						
15	4-5-5		15-16.5	X	Clayey Silt; Reddish Brown w/ olive gray silt, white & pink feldspar/Qtz frags, faint relict structure. ~~Moist~~ Black silt streaks, moist	
20	3-3-4		20-21.5	X	Same as above	Well Dimensions Screen 37-22 Sand 37-20' Bent 20-17.9 Stickup 3.00 TM
25	3-3-4		25-26.5	X	Sandy silt. Brownish yellow sand interlayered w/ Brown silt. Pink & white feldspar parting, black stains, Moist to wet	Water Levels WD 26' BGS Set = 33.40 FT OP 24 Hrs = 28.78 BGS
30						
35						
					37' complete (Not Refused)	
40						

Completion Depth 37'
Date 11/27/01
Field Agent J. Pfahl
Depth to Water in Boring
Location

1 of 1

Figure A-53. Field boring log for CD-4



LOG OF BORING NO. CD-4

Project Iredell C&D
Type 8.5" HSA w/ S.S
Project No. G01026.0
Drilling Company Geo. Exp.

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 1:15 on 11/26/01	
	2-4-3		0-1.5	X	Silty Sand; Brown Fine to Medium Grained Sand w/Red clayey silt nodules, Micas., Root & back debris, Dry	
3	9-10-16		3-4.5	X	Clayey Silt; Yellowish red cohesive clay w/ Brown silt, trace fine to medium sand, slightly micas., Dry	
5						
7	9-11-18		7-8.5	X	Same as above but slightly more moist & contains trace amounts of sand size qtz. fragments	
10						
15	5-5-6		15-16.5	X	Silty Sand; Brownish yellow fine grained sand interlayered w/ lt. olive gray micas. Silt, trace Red Clayey silt Nodules, Dry	
20	8-14-17		20-21.5	X	Silty Sand; Lt. Brown Med. grained sand w brown micas silt, Sand size translucent Qtz. fragments prevel. at, Dry	
25	14-15-15		25-26.5	X	Silty Sand; Brown med grained sand w/ Olive gray micas. Silt, ~~Sand size gravel~~ gravel size Qtz frags, slightly Moist	
30	8-12-15		30-31.5	X	Same as above	
35	26-50/5"		~~[illegible]~~.5 35-36	X	Silty Sand; Saprolite; Brown Medium grained sand w/ olive gray micas. Silt, Qtz parting, 2 relict fractures, white feldspar veins,	
40						

Completion Depth _____
Date 11/26/01 Field Agent J. [illegible]
Depth to Water in Boring _____
Location _____

1 of 2

Figure A-53. Field boring log for CD-4

(*Continued from previous page*)

LOG OF BORING NO. CD-4

Project Iredell Co. C&D
Type 8.5" O.D HSA w/ S.S
Project No. 601026.0
Drilling Company Geo. Expl.

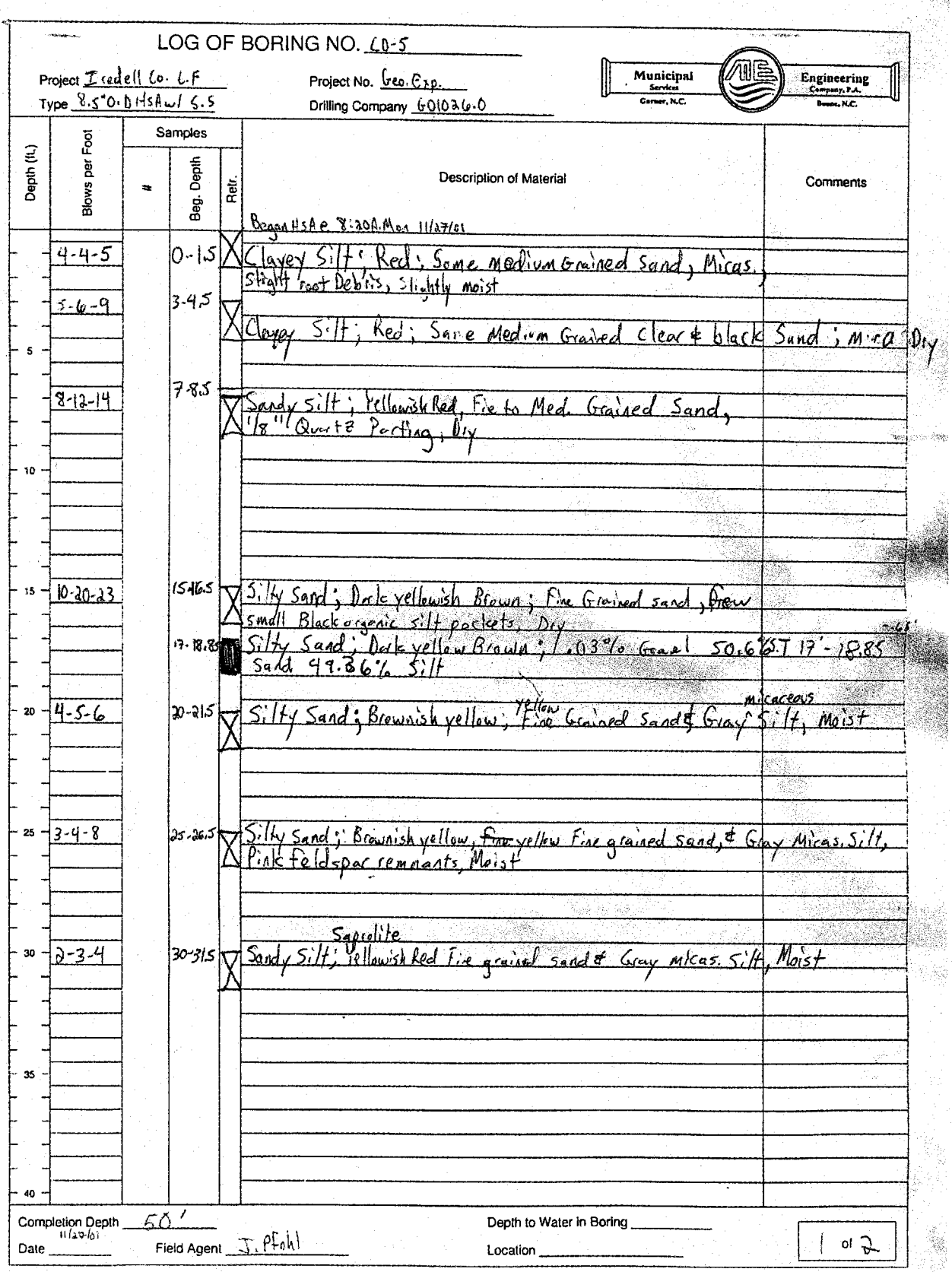
Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
45					Drillers stopped @ 45' Not refusal but getting very hard expect refusal in next 2 Ft.	
50						
55					Well Dimensions Screen: 29.45 - 44.45 Sand: 28.15 - 45.0' Bent: 22.5 - 28.15' Stickup: 2.60 T.M.	
60						
55					Water Levels 33.78' Set B.T.O.P	
70						
75						
80						

Completion Depth 45'
Date 11/26/01 Field Agent J. Pfohl
Depth to Water in Boring 31.10' BGS 24 Hrs.
Location

2 of 2

Figure A-54. Field boring log for CD-5



LOG OF BORING NO. CD-5

Project Iredell Co. L.F
Type 8.5"O.D HSA w/ 5.5
Project No. Geo. Exp.
Drilling Company GOLOGO

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

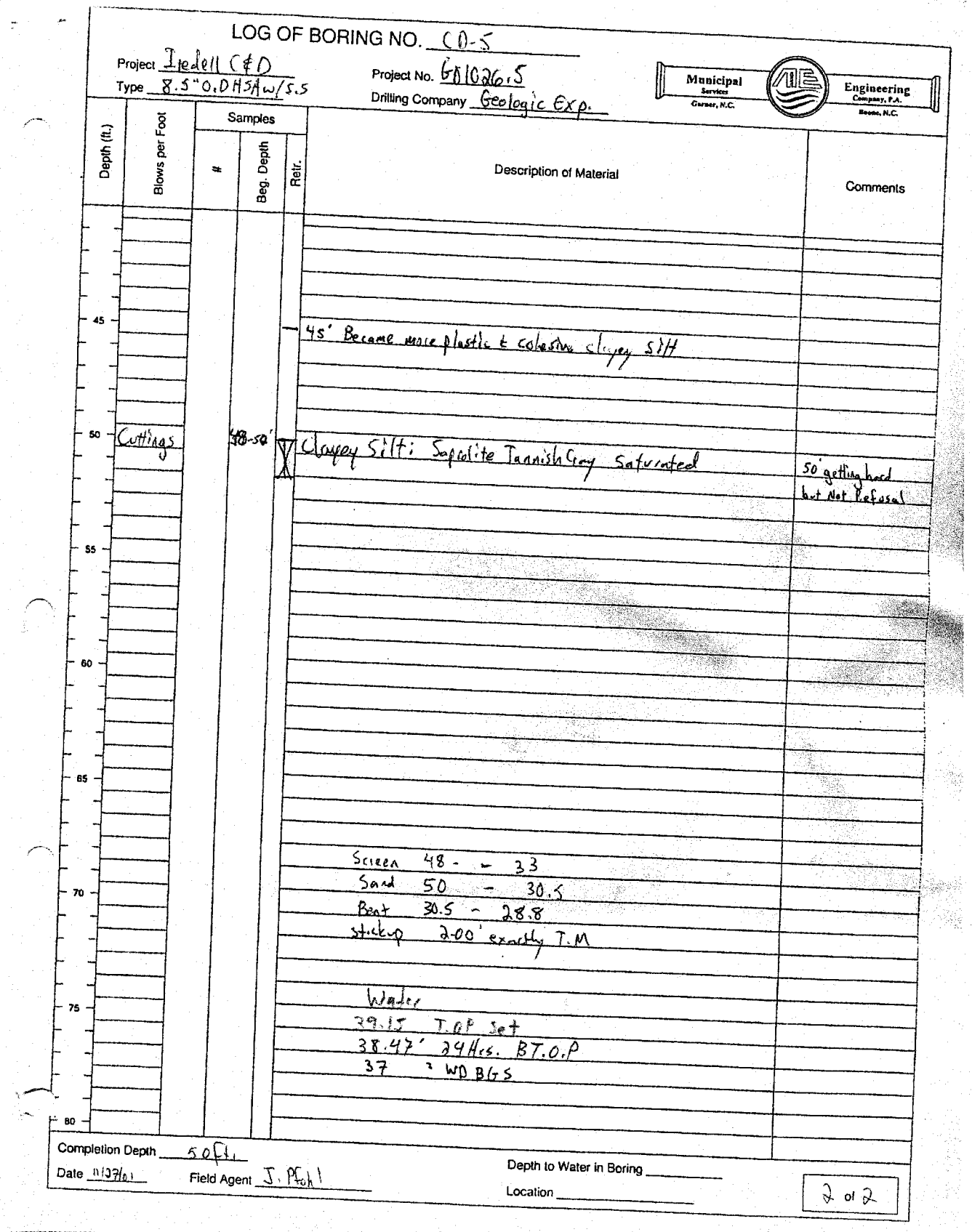
Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 8:20A.Mon 11/27/01	
	4-4-5		0-1.5		Clayey Silt; Red; Some medium Grained Sand, Micas, Slight root Debris, Slightly moist	
	5-6-9		3-4.5		Clayey Silt; Red; Some Medium Grained clear & black Sand; mica Dry	
5						
	8-12-14		7-8.5		Sandy Silt; Yellowish Red, Fine to Med. Grained Sand, 1/8" Quartz Parting, Dry	
10						
15	10-20-23		15-16.5		Silty Sand; Dark yellowish Brown; Fine Grained sand, Few small Black organic silt packets, Dry	
			17-18.85		Silty Sand; Dark yellow Brown; 1.03% Gravel 50.6% S.T 17'-18.85' Sand 49.36% Silt	
20	4-5-6		20-21.5		Silty Sand; Brownish yellow; Yellow Fine Grained Sand & Gray micaceous Silt, Moist	
25	3-4-8		25-26.5		Silty Sand; Brownish yellow, ~~Fine~~ yellow Fine grained sand, & Gray Micas. Silt, Pink feldspar remnants, Moist	
30	2-3-4		30-31.5		Saprolite Sandy Silt; Yellowish Red Fine grained sand & Gray micas. Silt, Moist	
35						
40						

Completion Depth 50' (11/29/01)
Date
Field Agent J. Pfohl
Depth to Water in Boring
Location

1 of 2

Figure A-54. Field boring log for CD-5

(*Continued from previous page*)



LOG OF BORING NO. CD-5

Project Iredell C&D
Type 8.5"O.D HSA w/ 5.5
Project No. 61026.5
Drilling Company Geologic Exp.

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
45					45' Became more plastic & cohesive clayey SILT	
50	Cuttings		48-50'		Clayey Silt; Saprolite Tannish Gray Saturated	50' getting hard but Not Refusal
55						
60						
65						
70					Screen 48 - 33 Sand 50 - 30.5 Bent 30.5 - 28.8 stickup 2.00' exactly T.M	
75					Water 39.15 T.O.P set 38.47' 24 Hrs. BT.O.P 37 ± WD BGS	
80						

Completion Depth 50 ft.
Date 11/27/01 Field Agent J. Pfohl
Depth to Water in Boring
Location

2 of 2

Figure A-55. Field boring log for CD-6

LOG OF BORING NO. CD-6

Project Iredell C&D Project No. 601026.0

Type 8.5" O.D HSA Drilling Company Geologic Explorations

Municipal Services Corner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Brown MSA @ 2:30 on 11/27/01	
	6-8-9		0-1.5'	X	Sandy Silt Top Soil; Yellowish Red; Black Root & leaf Debris, Few fractures, Dry	
	4-7-11		3-4.5	X	Sandy Silt; Red, some cohesive clay properties, fine grained sand w/organic black silt pockets, Dry Saprolite	
7	3-3-4		7-8.5	X	Silty Sand; Dark Brown Silt w/ Brownish yellow fine grained sand, Slightly micaceous, few white soft feldspar pockets, wet	7' WD
					10-13	
					BRICK	
			20-21.2		Silty Sand; Light Brown 0.22% Gravel, 49.84% Sand S.T. 49.94% Silt & Clay.	
					Well Dimensions	
					Screen = 23 - 8	No Refusal
					Sand = 23 - 6'	
					Bent. = 6 - 3.6'	
					Stickup = 3.5' T.M	
					13' BGS WD	
					15.76 B.T.OP Set	
					13.48 24Hrs BTOP	

Completion Depth 23 Depth to Water in Boring _____

Date 11/27/01 Field Agent J. Pfohl Location _____

1 of 1

Figure A-56. Field boring log for CD-7

LOG OF BORING NO. CD-7

Project Iredell Co C&D
Type 8.5" O.D HSA w/S.S
Project No. 601026.0
Drilling Company Geologic Explorations

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
	4-6-8		0-1.5'	X	Silty Sand; Brown Fine to Medium Sand, w/ Dark Red Clayey Silt, Organic Root + leaf debris, Moist	
3	6-6-7		3-4.5	X	Silty Sand; Tan Fine to Med. Grained sand w/ Brown & Olive Gray micaceous Silt, moist	
5			7-9.15			
					Sandy Silt (ML) 7.9.15 S.T Light Brown some white Sandy Silt (Non Plastic Material) Sand 48.08% Silt & Clay 51.92	
10						
				▽	12' W.D	
15						
20	5-7-15		20-21.5	X	Sandy Silt; Brown w/ white & black silt pockets, Wet	
25					Water Level 13.95' BTOP set	
30					Well Construction Screen 20.00 - 5.00' Sand 21.5 - 3.00' Bent 3.00 - 1.00 Grout 1.00 - 0 Stick up 2.1' T.M	
35					Water Levels W.D 12' BG.S Set 13.95' BT.O.P 24 Hrs 13.95' BT.O.P	
40						

Completion Depth 21.5
Date [illegible]
Field Agent J. Pfohl
Depth to Water in Boring _____
Location _____
1 of 1

Figure A-57. Field boring log for CD-8S

LOG OF BORING NO. CD-8S

Project Iredell Co. C&D Project No. 601026.5

Type 8.25" O.D HSA w/out S.S. Drilling Company ET

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
5					No S.S. see Log for CD-8D for soil Descriptions	
10						
15						
20						
25					Well Dimensions Screen: 16' - 6' Sand: 16' - 5' Bent: 5' - 3' Stickup: ~~3 - 0'~~ 2.94'	T.M Has surveyed
30					Grout: 3 - 0	
35					Water Levels W.D = ~ 7' BGS Set = 10.21 BTOP 24Hr = 10.18' 10/22/03 BTOP	
40						

Completion Depth 16' Depth to Water in Boring

Date 10/21/03 Field Agent J. Pfaff Location

1 of 1

Figure A-58. Field boring log for CD-8M

LOG OF BORING NO. CD-8M

Project Iredell Co. C&D
Type 8.25" O.D HSA w/ SS
Project No. 6010216.5
Drilling Company ET & MESCO

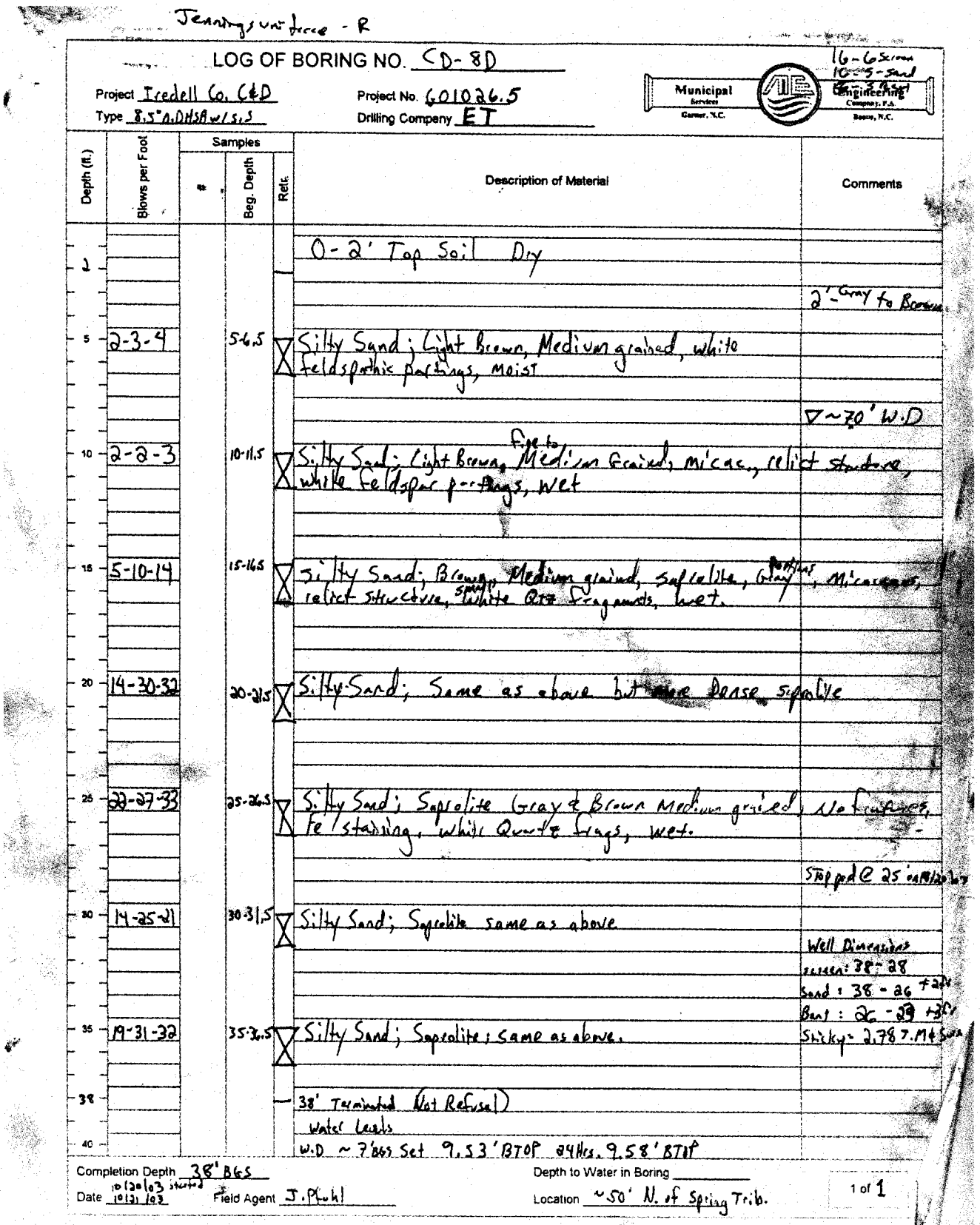
Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Ret.	Description of Material	Comments
					3/4" PVC pipe installed w/ 1ft. screen	
					Same Exact Boring as CD-8D - See boring log for soil Descriptions	
					MESCO installed a multi level piez. 3/4" PVC	
					Well Dimensions 3/4"	
					Screen: 21.5' - 22.5' 1ft.	
					Sand: 21' - 23' 2ft.	
					Bent: 21' - 18' 3ft.	
					Grout: 18 - 0 Grout 18'	
					Stickup = 2.78' T.M & Surveyed	
					Water Levels	
					W.D = ~7' B6.5	
					Set = 9.46' BTOP	
					24hr = 11.83' B.T.OP	

Completion Depth 23.0'
Date 10/21/03
Field Agent J. Pfohl
Depth to Water in Boring
Location ~50' N. of Spring THD

1 of 1

Figure A-59. Field boring log for CD-8D



Jennings unit force - R

LOG OF BORING NO. CD-8D

Project Iredell Co. C&D
Type 8.5" O.D HSA w/ S.S
Project No. 601026.5
Drilling Company ET

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

16-6 Screen
10-5-Sand
6-3 Bent

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Ref.	Description of Material	Comments
2					0-2' Top Soil Dry	
						2'-Gray to Brown
5	2-3-4		5-6.5	X	Silty Sand; Light Brown, Medium grained, white feldspathic partings, moist	
						▽~7.0' W.D
10	2-2-3		10-11.5	X	Silty Sand; Light Brown, fine to Medium Grained, micac., relict structure, white feldspar partings, wet	
15	5-10-14		15-16.5	X	Silty Sand; Brown, Medium grained, saprolite, Gray partings, Micaceous, relict structure, small white Qtz fragments, wet.	
20	14-30-32		20-21.5	X	Silty Sand; Same as above but more Dense saprolite	
25	22-27-33		25-26.5	X	Silty Sand; Saprolite Gray & Brown Medium grained, No fractures, Fe staining, white Quartz frags, wet.	
						Stopped @ 25' on 10/20/03
30	14-25-21		30-31.5	X	Silty Sand; Saprolite same as above	
						Well Dimensions screen: 38-28 Sand: 38-26 +2ft Bent: 26-23 +3ft
35	19-31-32		35-36.5	X	Silty Sand; Saprolite; same as above.	Sticky = 2.78 T.M & Sun
38					38' Terminated (Not Refusal)	
					Water Levels	
40					W.D ~7' BGS Set 9.53' BTOP 24 Hrs. 9.58' BTOP	

Completion Depth 38' BGS
Date 10/20/03 started 10/21/03
Field Agent J. Pfuhl
Depth to Water in Boring
Location ~50' N. of Spring Trib.

1 of 1

Figure A-60. Field boring log for MW-1C

LOG OF BORING NO. MW-1C

Project Iredell Co. C&D Project No. 601026.5

Type 8.25 O.D HSA Drilling Company ET

Municipal Service Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ ~ 12:00 PM 10/20/03	
5					See Log for MW-1A & MW-1B for soil Descriptions	
10						
15						
20						
25						
30						
35					Well Dimensions (B.G.S) Water Levels Screen: 34 - 19 W.D = ~ 19' B.G.S Sand: 34 - 17 (9 Bags) #3 Sand Set = 22.18 B.T.O.P Bent: 17 - 15 0.5 Bags 24 Hrs = 22.23 BTOP Stickup: 2.81' T.M & Survey	
40						

Completion Depth 34' Depth to Water in Boring

Date 10/20/03 Field Agent J. Pfahl Location New Background Next to MW-1A & MW-1B

1 of 1

Figure A-61. Field boring log for MW-9R

Logged 9/25/00

LOG OF BORING NO. MW-9R

Project Iredell L.F (C&D) Project No. 699087.0

Type 8.5" O.D HSA Drilling Company Geologic Explorations

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began 8.5" O.D HSA @ 4:30 P.M on 6/26/00	
5	5-6-6				Sandy Silt (ML) 3.5-4.0 Red/w / organic Root Debris 4.0-5.0 white sandy silt, cohesive, Micas, Moist	
10	2-3-3				Sandy Silt (ML) Reddish Brown, interbedded w/ whites and black spots, micas, wet,	
15	2-3-4				Sandy Silt (ML) Reddish Brown, Saturated No discernable characteristics due to ↑ moisture content.	
20					Terminated @ 20.0	
25					Well Construction (measured from Ground) Screen 20.0' – 5' (15') Sand 20.0' – 4' (16') Bentonite 4 – 3.5' (1.5) Grout 3.5 – 0	
30					H_2O readings (while Drilling 9.60' from Ground 6/26/00 Set 10.95' from T.O.P 6/26/00 24 Hrs 10.85' from T.O.P 6/27/00	
35					Stickup = 3.15 (surveyed)	
40						

Completion Depth 20.0' Depth to Water in Boring 9.60 WD

Date 6/26/00 Field Agent J. Pfohl Location _____ of

Figure A-62. Field boring log for MW-9RR

LOG OF BORING NO. MW-9RR

Project Iredell MW-9R replacement Project No. 601026.0

Type 8.5" O.D. HSA w/ 5.5 Drilling Company Geologic Explorations

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

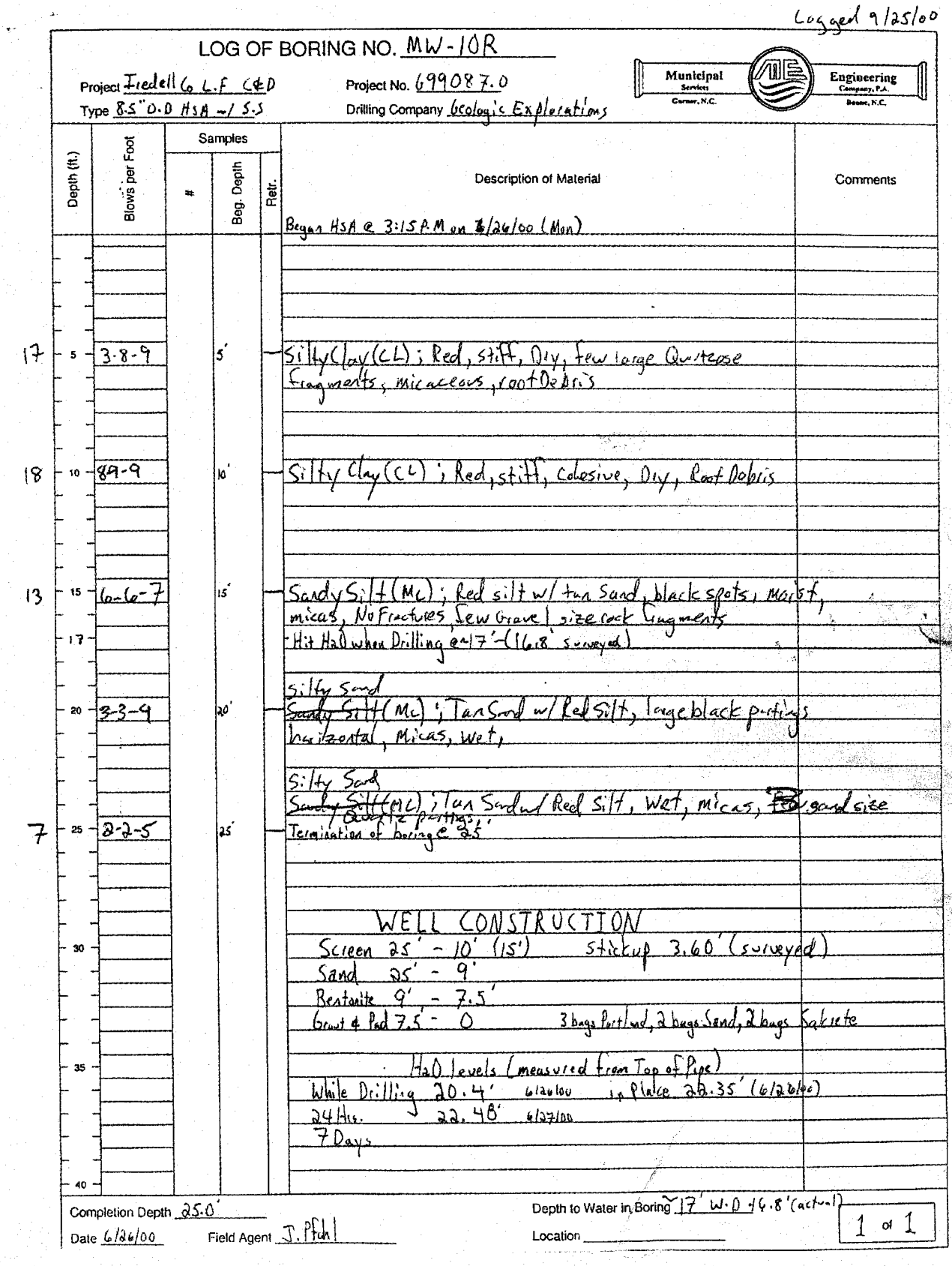
Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 9:10 on 11/28/01	
	4-10-12		0-1.5'	X	Top Soil - Grass, w/ Dark organic Matter, leaf & root Debris, Wet	
3	5-7-8		3-4.5'	X	Sandy Silt; Red w/ organic Root Debris	
5						
10	6-5-8		10-11.5		Sandy Silt; Reddish Brown, interbedded w/ white sand & black specks; Damp	
				▽	~12" W.D	
15						14" Turned Dark Brown
20	5-9-15		20-21.5	X	Sandy Silt; Reddish Brown, saturated	
25					Boring Log Completed in Geolog on 2/12/02	
30					Screen 22 - 7 Sand 22 - 5.3 Bent 5.3 - 3.2' Slough 3.6' T.M	
35					Water levels WD 12' BGS SPT = 17.93' BTOP 24Hrs = 18.51' B.T.O.P or (15.91 from Ground) 7 Days = N/A	
40						

Completion Depth 22 Depth to Water in Boring _____

Date 11/28/01 Field Agent J. Pfohl Location _____

1 of 1

Figure A-63. Field boring log for MW-10R



Logged 9/25/00

LOG OF BORING NO. MW-10R

Project Iredell Co L.F C&D Project No. 699087.0

Type 8.5" O.D HSA w/ 5.5 Drilling Company Ecology's Explorations

Municipal Services Corner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 3:15 P.M on 6/26/00 (Mon)	
5	3-8-9		5'		Silty Clay (CL); Red, stiff, Dry, few large Quartzose fragments, micaceous, root Debris	
10	8-9-9		10'		Silty Clay (CL); Red, stiff, Cohesive, Dry, Root Debris	
15	6-6-7		15'		Sandy Silt (ML); Red silt w/ tan Sand, black spots, Moist, micas, No Fractures, few Gravel size rock fragments	
17					Hit Hard when Drilling @ 17' (16.8' surveyed)	
					Silty Sand	
20	3-3-4		20'		~~Sandy Silt (ML)~~; Tan Sand w/ Red Silt, large black partings horizontal, Micas, Wet,	
					Silty Sand	
25	2-2-5		25'		~~Sandy Silt (ML)~~; Tan Sand w/ Red Silt, Wet, micas, ~~Fe~~ gravel size Quartz partings; Termination of boring @ 25'	
30					**WELL CONSTRUCTION**	
					Screen 25' - 10' (15') stickup 3.60' (surveyed)	
					Sand 25' - 9'	
					Bentonite 9' - 7.5'	
					Grout & Pad 7.5' - 0 3 bags Portland, 2 bags Sand, 2 bags Sakrete	
35					H_2O levels (measured from Top of Pipe)	
					While Drilling 20.4' 6/26/00 in Place 26.35' (6/26/00)	
					24 Hrs. 22.48' 6/27/00	
					7 Days	
40						

Completion Depth 25.0' Depth to Water in Boring ~17' W.D 16.8' (actual)

Date 6/26/00 Field Agent J. Pfahl Location

1 of 1

Figure A-64. Field boring log for MW-16

Logged on 9/25/00

LOG OF BORING NO. MW-16

Project Iredell Co L.F (C&D) Project No. 699087.0

Type 8.5" O.D HSA w/ S.S Drilling Company Geologic Explorations

Municipal Services Garner, N.C. — Engineering Company, P.A. Boone, N.C.

Depth (ft.)	Blows per Foot	Samples #	Samples Beg. Depth	Samples Retr.	Description of Material	Comments
					Began HSA @ 11:15 A.M 6/27/00	
5	4-5-5				Sandy Silt (ML) Tan, Root Debris, Blackspots, Micas, Dry,	
9					Hit H2O while Drilling @ 9'	
10	6-6-7				Sandy Silt (ML) Tan, blackspots, Micas, wet, large proportion of white sand grains	
15	3-4-6				Same as above, saturated, higher proportion of sand Grains	
20	4-9-27				Same as above, large Quartz Seam @ bit, Trace of black organic material, Saturated	
					WELL CONSTRUCTION	
					Screen 20'-5' (15')	
					Sand 20'-4'	
					Bent. 4'-3'	
					Grout 3'-0'	
					2'x2'x2" Concrete Pad w/ 4 concrete filled bumper poles.	
					Stickup - 2.81 ft. (surveyed)	
					H2O LEVELS	
					While Drilling ~9' 6/27/00 from ground	
					Peiz. Installed 11.73' 6/27/00 from T.O.P	
					24 Hrs. 11.55' 6/28/00 from T.O.P	
					7 Days	

Completion Depth 20 Depth to Water in Boring _____

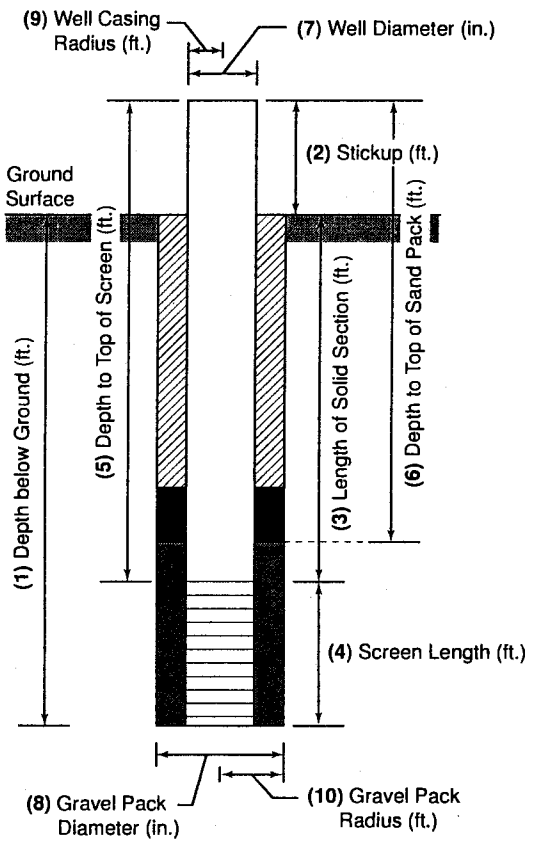
Date 6/27/00 Field Agent J. Pfohl Location _____

1 of 1

APPENDIX B

Table B-1. Well geometry for analysis of slug test results

Well	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
CD-1	32.70	2.30	17.70	15	20.00	17.80	2	8.5	0.0833	0.3542
CD-2	45.00	2.50	30.00	15	32.50	30.30	2	8.5	0.0833	0.3542
CD-3	37.00	3.00	22.00	15	25.00	23.00	2	8.5	0.0833	0.3542
CD-4	45.00	2.60	29.45	15	32.05	30.75	2	8.5	0.0833	0.3542
CD-5	50.00	2.00	33.00	15	35.00	32.50	2	8.5	0.0833	0.3542
CD-6	23.00	3.50	8.00	15	11.50	9.50	2	8.5	0.0833	0.3542
CD-7	21.50	2.10	5.00	15	7.10	5.10	2	8.5	0.0833	0.3542
MW-9RR	22.00	2.60	7.00	15	9.60	7.90	2	8.5	0.0833	0.3542
MW-16	20.00	2.81	5.00	15	7.81	6.81	2	8.5	0.0833	0.3542



NOTE

1. Parameters in the table are numbered from (1) through (10), and correspond to the parameters with the same numbers in the diagram to the right of the table.
2. All figures in this table are in units of feet except for the well diameters (7) and the gravel pack diameters (8) which are in units of inches.

Table B-2. Slug test summary

Well	Depth to Top of Screen (ft)	Initial Depth to Water (ft)	Initial Head Change (ft)	Mathematical Method	Field Method	Lithology	Hydraulic Conductivity (cm/sec)			
							Individual	Average	S.D.	S.E.
CD-3	25.00	32.81	4.47	Bouwer & Rice	pump	clayey - sandy silt	**3.35E-5**	3.35E-5	-	-
CD-1	20.00	27.65	4.99	Bouwer & Rice	pump	sandy silt	**1.96E-4**			
CD-2	32.50	34.26	4.93	Bouwer & Rice	pump	silty sand	**4.20E-4**			
CD-4	32.05	34.10	6.92	Bouwer & Rice	pump	silty sand	**3.55E-4**			
CD-5	35.00	37.70	5.31	Bouwer & Rice	pump	sandy silt	**1.81E-4**			
								2.63E-4	1.31E-4	4.63E-5
CD-6	11.50	11.32	6.02	Bouwer & Rice	pump	silty sand	**1.18E-4**			
CD-7	7.10	12.97	6.65	Bouwer & Rice	pump	sandy silt	**2.19E-4**			
MW-16	7.81	11.32	5.58	Bouwer & Rice	pump	sandy silt	**4.65E-4**			
MW-9RR	9.60	18.30	5.17	Bouwer & Rice	pump	sandy silt	**1.53E-4**			

NOTE

1. The height of an initial head change refers to the height of the water column that has been withdrawn from a well pumping. The change is in downward direction.
2. Figures under the *Depth to top of screen* and the *Initial depth to water* are both with reference to the top of casing.
3. A soil description under *Lithology* describes soil found within the perforated section of a well.
4. Hydraulic conductivities are further divided into sand-silt group and sand-silt-clay group with soils in the latter group containing noticeable amount of clay.
5. The S.D. and S.E. refer to the standard deviation and standard error of the hydraulic conductivity values.

Table B-3. Flow rate calculations

Piezometer	h_1 (ft)	h_2 (ft)	dh (ft)	dl (ft)	i	n_e (%)	K (cm/sec)	Q (ft/yr)	v (ft/yr)	Flow Direction
CD-1	852.17	850.00	2.17	87.78	0.0247	16.08	1.96E-4	5.01	31.19	S69E
CD-3	805.00	800.71	4.29	77.25	0.0555	16.08	3.35E-5	1.92	11.97	N84E
CD-4	848.95	845.00	3.95	66.01	0.0598	16.08	3.55E-4	21.98	136.73	S67E
CD-5	830.00	827.56	2.44	61.16	0.0399	16.08	1.81E-4	7.47	46.48	S68E
CD-6	815.00	813.12	1.88	64.87	0.0290	16.08	1.18E-4	3.54	22.01	N76E
CD-7	825.00	819.46	5.54	77.94	0.0711	16.08	2.19E-4	16.11	100.19	S60E
CD-8S	815.00	809.89	5.11	90.87	0.0562	16.08	2.63E-4	15.32	95.33	S54E
MW-1B	859.83	855.00	4.83	79.40	0.0608	16.08	2.63E-4	16.58	103.12	S86E
MW-9R	800.00	795.55	4.45	92.66	0.0480	16.08	1.53E-4	7.60	47.29	N64E
MW-9RR	795.00	789.06	5.94	40.82	0.1455	16.08	1.53E-4	23.04	143.30	N75E
MW-10R	800.00	798.27	1.73	37.22	0.0465	16.08	2.63E-4	12.67	78.79	N74E
MW-16	785.00	782.82	2.18	45.15	0.0483	16.08	4.65E-4	23.23	144.51	N62E
P2-1S	840.00	838.33	1.67	49.97	0.0334	16.08	1.42E-4	4.91	30.54	N06E
PZ-1S	835.00	833.69	1.31	41.09	0.0319	16.08	2.63E-4	8.69	54.04	N25E

Explanations

1. Parameters dh and dl denote the difference in hydraulic head and the horizontal distance, respectively, between two measurement points. In Plate 5—*Single day potentiometric map with flow directions*—an arrow is drawn at each piezometer location in the direction of hydraulic gradient. The elevations of the hydraulic heads at the head and tail of each arrow are inferred from the plate, and are referred to as h_1 and h_2 in this table in this respective order. The value of the dh is then determined as the absolute difference between the h_1 and the h_2. Parameter i denotes the hydraulic gradient associated with an arrow, and is defined by the equation:

$$i = \frac{dh}{dl}$$

   Both of the dh and the dl are in units of feet, and consequently the hydraulic gradient i is dimensionless.

2. Parameter n_e denotes the effective porosity in percent. The average effective porosity for the aquifer was used for all of the calculations shown above.

3. The K denotes the hydraulic conductivity determined from the field slug tests. For those piezometers on which slug test was not conducted, either the average K value or a K value of a nearby piezometer was used as a substitute.

4. Parameters Q and v denote the specific discharge and the average linear velocity, respectively. Both of these parameters are in units of feet/year. The specific discharge is defined by the equation:

$$Q = -K\frac{dh}{dl}$$

   where the dh and the dl are in feet, and the K in cm/sec. Though not indicated in the above equation, a unit conversion between the Q (ft/yr) and the K (cm/sec) was performed. The average linear velocity, denoted by v, is defined by the equation:

$$v = \frac{Q}{n_e}\frac{dh}{dl}$$

5. All of the displayed flow directions are derived from the water level data taken on December 17, 2003.

Table B-4. Slug test on CD-1

Offset in logger reading (feet):	0.09	Date:	3/15/2002
Initial depth to water table (feet):	27.65		
Depth of probe below water table (feet):	5.83		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:51:31 PM	46291	0	0.92	0.84	4.99	0.69823
3/15/2002 12:51:32 PM	46292	1	0.98	0.89	4.94	0.69369
3/15/2002 12:51:33 PM	46293	2	1.14	1.06	4.77	0.67875
3/15/2002 12:51:34 PM	46294	3	1.22	1.13	4.70	0.67205
3/15/2002 12:51:35 PM	46295	4	1.25	1.17	4.66	0.66872
3/15/2002 12:51:36 PM	46296	5	1.27	1.18	4.65	0.66741
3/15/2002 12:51:37 PM	46297	6	1.29	1.20	4.63	0.66544
3/15/2002 12:51:38 PM	46298	7	1.31	1.22	4.61	0.66366
3/15/2002 12:51:39 PM	46299	8	1.33	1.24	4.59	0.66186
3/15/2002 12:51:40 PM	46300	9	1.34	1.25	4.58	0.66054
3/15/2002 12:51:41 PM	46301	10	1.36	1.27	4.56	0.65873
3/15/2002 12:51:42 PM	46302	11	1.38	1.29	4.54	0.65701
3/15/2002 12:51:43 PM	46303	12	1.41	1.32	4.51	0.65404
3/15/2002 12:51:44 PM	46304	13	1.44	1.35	4.48	0.65104
3/15/2002 12:51:45 PM	46305	14	1.47	1.39	4.44	0.64763
3/15/2002 12:51:46 PM	46306	15	1.51	1.43	4.40	0.64370
3/15/2002 12:51:47 PM	46307	16	1.57	1.48	4.35	0.63854
3/15/2002 12:51:48 PM	46308	17	1.62	1.53	4.30	0.63332
3/15/2002 12:51:49 PM	46309	18	1.67	1.58	4.25	0.62834
3/15/2002 12:51:50 PM	46310	19	1.71	1.63	4.20	0.62351
3/15/2002 12:51:51 PM	46311	20	1.76	1.67	4.16	0.61884
3/15/2002 12:51:52 PM	46312	21	1.79	1.71	4.12	0.61538
3/15/2002 12:51:53 PM	46313	22	1.82	1.73	4.10	0.61284
3/15/2002 12:51:54 PM	46314	23	1.84	1.75	4.08	0.61040
3/15/2002 12:51:55 PM	46315	24	1.86	1.77	4.06	0.60837
3/15/2002 12:51:56 PM	46316	25	1.87	1.78	4.05	0.60708
3/15/2002 12:51:57 PM	46317	26	1.89	1.80	4.03	0.60536
3/15/2002 12:51:58 PM	46318	27	1.90	1.81	4.02	0.60374
3/15/2002 12:51:59 PM	46319	28	1.91	1.83	4.00	0.60255
3/15/2002 12:52:01 PM	46321	30	1.93	1.84	3.99	0.60049
3/15/2002 12:52:02 PM	46322	31	1.94	1.86	3.97	0.59918
3/15/2002 12:52:03 PM	46323	32	1.95	1.87	3.96	0.59786
3/15/2002 12:52:05 PM	46325	34	1.97	1.88	3.95	0.59611
3/15/2002 12:52:07 PM	46327	36	1.98	1.90	3.93	0.59456
3/15/2002 12:52:08 PM	46328	37	1.99	1.91	3.92	0.59346
3/15/2002 12:52:10 PM	46330	39	2.01	1.92	3.91	0.59190
3/15/2002 12:52:11 PM	46331	40	2.02	1.93	3.90	0.59057
3/15/2002 12:52:13 PM	46333	42	2.04	1.95	3.88	0.58856
3/15/2002 12:52:15 PM	46335	44	2.05	1.97	3.86	0.58687
3/15/2002 12:52:17 PM	46337	46	2.07	1.99	3.84	0.58484
3/15/2002 12:52:19 PM	46339	48	2.09	2.01	3.82	0.58235
3/15/2002 12:52:21 PM	46341	50	2.11	2.03	3.80	0.58030
3/15/2002 12:52:23 PM	46343	52	2.13	2.04	3.79	0.57870
3/15/2002 12:52:25 PM	46345	54	2.14	2.05	3.78	0.57698
3/15/2002 12:52:27 PM	46347	56	2.16	2.07	3.76	0.57513
3/15/2002 12:52:28 PM	46348	57	2.17	2.08	3.75	0.57375
3/15/2002 12:52:30 PM	46350	59	2.18	2.10	3.73	0.57189
3/15/2002 12:52:32 PM	46352	61	2.20	2.11	3.72	0.57026

Table B-4. Slug test on CD-1 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:52:33 PM	46353	62	2.21	2.12	3.71	0.56909
3/15/2002 12:52:35 PM	46355	64	2.22	2.14	3.69	0.56744
3/15/2002 12:52:37 PM	46357	66	2.24	2.15	3.68	0.56556
3/15/2002 12:52:39 PM	46359	68	2.25	2.17	3.66	0.56378
3/15/2002 12:52:41 PM	46361	70	2.27	2.18	3.65	0.56188
3/15/2002 12:52:43 PM	46363	72	2.28	2.20	3.63	0.56021
3/15/2002 12:52:45 PM	46365	74	2.30	2.21	3.62	0.55877
3/15/2002 12:52:47 PM	46367	76	2.32	2.23	3.60	0.55625
3/15/2002 12:52:49 PM	46369	78	2.33	2.24	3.59	0.55455
3/15/2002 12:52:51 PM	46371	80	2.35	2.26	3.57	0.55249
3/15/2002 12:52:53 PM	46373	82	2.36	2.28	3.55	0.55054
3/15/2002 12:52:55 PM	46375	84	2.38	2.29	3.54	0.54846
3/15/2002 12:52:57 PM	46377	86	2.39	2.31	3.52	0.54710
3/15/2002 12:52:59 PM	46379	88	2.41	2.32	3.51	0.54500
3/15/2002 12:53:01 PM	46381	90	2.43	2.34	3.49	0.54289
3/15/2002 12:53:03 PM	46383	92	2.44	2.35	3.48	0.54115
3/15/2002 12:53:05 PM	46385	94	2.46	2.37	3.46	0.53914
3/15/2002 12:53:07 PM	46387	96	2.47	2.39	3.44	0.53675
3/15/2002 12:53:09 PM	46389	98	2.49	2.41	3.42	0.53435
3/15/2002 12:53:11 PM	46391	100	2.51	2.42	3.41	0.53282
3/15/2002 12:53:13 PM	46393	102	2.52	2.43	3.40	0.53142
3/15/2002 12:53:15 PM	46395	104	2.53	2.45	3.38	0.52924
3/15/2002 12:53:16 PM	46396	105	2.55	2.46	3.37	0.52770
3/15/2002 12:53:19 PM	46399	108	2.56	2.47	3.36	0.52589
3/15/2002 12:53:21 PM	46401	110	2.58	2.49	3.34	0.52343
3/15/2002 12:53:22 PM	46402	111	2.59	2.50	3.33	0.52199
3/15/2002 12:53:24 PM	46404	113	2.60	2.51	3.32	0.52068
3/15/2002 12:53:26 PM	46406	115	2.62	2.53	3.30	0.51858
3/15/2002 12:53:28 PM	46408	117	2.63	2.55	3.28	0.51634
3/15/2002 12:53:30 PM	46410	119	2.65	2.56	3.27	0.51449
3/15/2002 12:53:32 PM	46412	121	2.66	2.57	3.26	0.51262
3/15/2002 12:53:34 PM	46414	123	2.67	2.59	3.24	0.51075
3/15/2002 12:53:36 PM	46416	125	2.69	2.60	3.23	0.50874
3/15/2002 12:53:38 PM	46418	127	2.71	2.62	3.21	0.50658
3/15/2002 12:53:40 PM	46420	129	2.72	2.63	3.20	0.50468
3/15/2002 12:53:42 PM	46422	131	2.73	2.65	3.18	0.50277
3/15/2002 12:53:44 PM	46424	133	2.75	2.66	3.17	0.50045
3/15/2002 12:53:46 PM	46426	135	2.76	2.68	3.15	0.49880
3/15/2002 12:53:48 PM	46428	137	2.78	2.69	3.14	0.49687
3/15/2002 12:53:50 PM	46430	139	2.79	2.71	3.12	0.49465
3/15/2002 12:53:52 PM	46432	141	2.81	2.72	3.11	0.49270
3/15/2002 12:53:54 PM	46434	143	2.82	2.74	3.09	0.49031
3/15/2002 12:53:56 PM	46436	145	2.84	2.75	3.08	0.48834
3/15/2002 12:53:58 PM	46438	147	2.85	2.77	3.06	0.48636
3/15/2002 12:54:00 PM	46440	149	2.87	2.78	3.05	0.48438
3/15/2002 12:54:02 PM	46442	151	2.88	2.79	3.04	0.48266
3/15/2002 12:54:04 PM	46444	153	2.89	2.81	3.02	0.48037
3/15/2002 12:54:06 PM	46446	155	2.90	2.82	3.01	0.47893
3/15/2002 12:54:08 PM	46448	157	2.92	2.83	3.00	0.47691
3/15/2002 12:54:10 PM	46450	159	2.93	2.84	2.99	0.47517
3/15/2002 12:54:12 PM	46452	161	2.94	2.86	2.97	0.47313
3/15/2002 12:54:14 PM	46454	163	2.96	2.87	2.96	0.47137

Table B-4. Slug test on CD-1 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:54:16 PM	46456	165	2.97	2.88	2.95	0.46961
3/15/2002 12:54:18 PM	46458	167	2.98	2.89	2.94	0.46798
3/15/2002 12:54:20 PM	46460	169	2.99	2.91	2.92	0.46591
3/15/2002 12:54:22 PM	46462	171	3.00	2.92	2.91	0.46412
3/15/2002 12:54:24 PM	46464	173	3.02	2.93	2.90	0.46203
3/15/2002 12:54:26 PM	46466	175	3.03	2.94	2.89	0.46023
3/15/2002 12:54:28 PM	46468	177	3.04	2.96	2.87	0.45842
3/15/2002 12:54:30 PM	46470	179	3.05	2.97	2.86	0.45660
3/15/2002 12:54:32 PM	46472	181	3.07	2.98	2.85	0.45416
3/15/2002 12:54:34 PM	46474	183	3.08	3.00	2.83	0.45233
3/15/2002 12:54:37 PM	46477	186	3.10	3.01	2.82	0.44987
3/15/2002 12:54:39 PM	46479	188	3.11	3.02	2.81	0.44802
3/15/2002 12:54:41 PM	46481	190	3.12	3.04	2.79	0.44615
3/15/2002 12:54:43 PM	46483	192	3.13	3.05	2.78	0.44428
3/15/2002 12:54:45 PM	46485	194	3.15	3.06	2.77	0.44241
3/15/2002 12:54:47 PM	46487	196	3.16	3.07	2.76	0.44068
3/15/2002 12:54:49 PM	46489	198	3.17	3.08	2.75	0.43879
3/15/2002 12:54:52 PM	46492	201	3.19	3.10	2.73	0.43609
3/15/2002 12:54:55 PM	46495	204	3.20	3.11	2.72	0.43386
3/15/2002 12:54:57 PM	46497	206	3.21	3.13	2.70	0.43193
3/15/2002 12:54:59 PM	46499	208	3.22	3.14	2.69	0.43016
3/15/2002 12:55:01 PM	46501	210	3.24	3.15	2.68	0.42822
3/15/2002 12:55:02 PM	46502	211	3.25	3.16	2.67	0.42660
3/15/2002 12:55:05 PM	46505	214	3.26	3.18	2.65	0.42399
3/15/2002 12:55:08 PM	46508	217	3.28	3.19	2.64	0.42120
3/15/2002 12:55:11 PM	46511	220	3.29	3.21	2.62	0.41856
3/15/2002 12:55:14 PM	46514	223	3.31	3.23	2.60	0.41573
3/15/2002 12:55:16 PM	46516	225	3.32	3.24	2.59	0.41389
3/15/2002 12:55:18 PM	46518	227	3.33	3.25	2.58	0.41188
3/15/2002 12:55:21 PM	46521	230	3.35	3.27	2.56	0.40901
3/15/2002 12:55:24 PM	46524	233	3.37	3.28	2.55	0.40629
3/15/2002 12:55:26 PM	46526	235	3.38	3.30	2.53	0.40390
3/15/2002 12:55:29 PM	46529	238	3.40	3.31	2.52	0.40149
3/15/2002 12:55:32 PM	46532	241	3.41	3.33	2.50	0.39855
3/15/2002 12:55:34 PM	46534	243	3.43	3.34	2.49	0.39612
3/15/2002 12:55:37 PM	46537	246	3.44	3.35	2.48	0.39367
3/15/2002 12:55:39 PM	46539	248	3.45	3.37	2.46	0.39121
3/15/2002 12:55:41 PM	46541	250	3.47	3.38	2.45	0.38855
3/15/2002 12:55:43 PM	46543	252	3.49	3.40	2.43	0.38570
3/15/2002 12:55:45 PM	46545	254	3.50	3.41	2.42	0.38355
3/15/2002 12:55:47 PM	46547	256	3.51	3.43	2.40	0.38103
3/15/2002 12:55:49 PM	46549	258	3.53	3.45	2.38	0.37722
3/15/2002 12:55:51 PM	46551	260	3.55	3.46	2.37	0.37411
3/15/2002 12:55:53 PM	46553	262	3.58	3.49	2.34	0.36932
3/15/2002 12:55:54 PM	46554	263	3.59	3.50	2.33	0.36727
3/15/2002 12:55:55 PM	46555	264	3.61	3.52	2.31	0.36371
3/15/2002 12:55:56 PM	46556	265	3.63	3.54	2.29	0.35975
3/15/2002 12:55:57 PM	46557	266	3.65	3.56	2.27	0.35613
3/15/2002 12:55:58 PM	46558	267	3.67	3.58	2.25	0.35151
3/15/2002 12:55:59 PM	46559	268	3.69	3.61	2.22	0.34704
3/15/2002 12:56:00 PM	46560	269	3.71	3.62	2.21	0.34371
3/15/2002 12:56:01 PM	46561	270	3.73	3.64	2.19	0.33956

Table B-4. Slug test on CD-1

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:56:02 PM	46562	271	3.75	3.66	2.17	0.33577
3/15/2002 12:56:03 PM	46563	272	3.77	3.68	2.15	0.33255
3/15/2002 12:56:04 PM	46564	273	3.78	3.69	2.14	0.32951
3/15/2002 12:56:06 PM	46566	275	3.80	3.72	2.11	0.32480
3/15/2002 12:56:08 PM	46568	277	3.82	3.73	2.10	0.32192
3/15/2002 12:56:10 PM	46570	279	3.83	3.75	2.08	0.31901
3/15/2002 12:56:11 PM	46571	280	3.84	3.76	2.07	0.31650
3/15/2002 12:56:14 PM	46574	283	3.85	3.77	2.06	0.31440
3/15/2002 12:56:16 PM	46576	285	3.86	3.78	2.05	0.31208
3/15/2002 12:56:19 PM	46579	288	3.88	3.79	2.04	0.30953
3/15/2002 12:56:22 PM	46582	291	3.89	3.80	2.03	0.30697
3/15/2002 12:56:25 PM	46585	294	3.90	3.81	2.02	0.30439
3/15/2002 12:56:30 PM	46590	299	3.91	3.83	2.00	0.30136
3/15/2002 12:56:33 PM	46593	302	3.93	3.84	1.99	0.29875
3/15/2002 12:56:36 PM	46596	305	3.94	3.85	1.98	0.29568
3/15/2002 12:56:40 PM	46600	309	3.95	3.87	1.96	0.29260
3/15/2002 12:56:44 PM	46604	313	3.97	3.88	1.95	0.28949
3/15/2002 12:56:48 PM	46608	317	3.98	3.89	1.94	0.28680
3/15/2002 12:56:51 PM	46611	320	3.99	3.91	1.92	0.28410
3/15/2002 12:56:54 PM	46614	323	4.00	3.92	1.91	0.28161
3/15/2002 12:56:57 PM	46617	326	4.02	3.93	1.90	0.27888
3/15/2002 12:57:00 PM	46620	329	4.03	3.94	1.89	0.27658
3/15/2002 12:57:03 PM	46623	332	4.04	3.95	1.88	0.27336
3/15/2002 12:57:07 PM	46627	336	4.05	3.97	1.86	0.27010
3/15/2002 12:57:10 PM	46630	339	4.07	3.98	1.85	0.26683
3/15/2002 12:57:14 PM	46634	343	4.08	4.00	1.83	0.26353
3/15/2002 12:57:17 PM	46637	346	4.09	4.01	1.82	0.26068
3/15/2002 12:57:20 PM	46640	349	4.11	4.02	1.81	0.25781
3/15/2002 12:57:23 PM	46643	352	4.12	4.03	1.80	0.25516
3/15/2002 12:57:26 PM	46646	355	4.13	4.04	1.79	0.25225
3/15/2002 12:57:30 PM	46650	359	4.14	4.06	1.77	0.24884
3/15/2002 12:57:33 PM	46653	362	4.15	4.07	1.76	0.24589
3/15/2002 12:57:36 PM	46656	365	4.17	4.08	1.75	0.24292
3/15/2002 12:57:39 PM	46659	368	4.18	4.09	1.74	0.23993
3/15/2002 12:57:43 PM	46663	372	4.19	4.11	1.72	0.23642
3/15/2002 12:57:47 PM	46667	376	4.21	4.12	1.71	0.23288
3/15/2002 12:57:50 PM	46670	379	4.22	4.13	1.70	0.22982
3/15/2002 12:57:53 PM	46673	382	4.23	4.14	1.69	0.22700
3/15/2002 12:57:56 PM	46676	385	4.24	4.16	1.67	0.22389
3/15/2002 12:57:59 PM	46679	388	4.25	4.17	1.66	0.22129
3/15/2002 12:58:03 PM	46683	392	4.26	4.18	1.65	0.21841
3/15/2002 12:58:06 PM	46686	395	4.27	4.19	1.64	0.21525
3/15/2002 12:58:10 PM	46690	399	4.29	4.20	1.63	0.21206
3/15/2002 12:58:14 PM	46694	403	4.30	4.22	1.61	0.20778
3/15/2002 12:58:17 PM	46697	406	4.31	4.23	1.60	0.20454
3/15/2002 12:58:22 PM	46702	411	4.33	4.25	1.58	0.19990
3/15/2002 12:58:25 PM	46705	414	4.34	4.26	1.57	0.19688
3/15/2002 12:58:28 PM	46708	417	4.35	4.27	1.56	0.19355
3/15/2002 12:58:32 PM	46712	421	4.37	4.28	1.55	0.19020
3/15/2002 12:58:35 PM	46715	424	4.38	4.29	1.54	0.18683
3/15/2002 12:58:39 PM	46719	428	4.39	4.31	1.52	0.18228
3/15/2002 12:58:43 PM	46723	432	4.41	4.32	1.51	0.17827

Table B-4. Slug test on CD-1

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:58:48 PM	46728	437	4.42	4.34	1.49	0.17422
3/15/2002 12:58:50 PM	46730	439	4.43	4.35	1.48	0.17130
3/15/2002 12:58:54 PM	46734	443	4.44	4.36	1.47	0.16777
3/15/2002 12:58:58 PM	46738	447	4.46	4.37	1.46	0.16362
3/15/2002 12:59:01 PM	46741	450	4.47	4.39	1.44	0.15943
3/15/2002 12:59:05 PM	46745	454	4.48	4.40	1.43	0.15580
3/15/2002 12:59:08 PM	46748	457	4.50	4.41	1.42	0.15153
3/15/2002 12:59:12 PM	46752	461	4.51	4.43	1.40	0.14722
3/15/2002 12:59:15 PM	46755	464	4.52	4.44	1.39	0.14349
3/15/2002 12:59:18 PM	46758	467	4.54	4.45	1.38	0.13973
3/15/2002 12:59:24 PM	46764	473	4.55	4.46	1.37	0.13626
3/15/2002 12:59:26 PM	46766	475	4.56	4.48	1.35	0.13083
3/15/2002 12:59:30 PM	46770	479	4.58	4.49	1.34	0.12695
3/15/2002 12:59:34 PM	46774	483	4.59	4.50	1.33	0.12239
3/15/2002 12:59:38 PM	46778	487	4.60	4.52	1.31	0.11778
3/15/2002 12:59:42 PM	46782	491	4.62	4.53	1.30	0.11379
3/15/2002 12:59:47 PM	46787	496	4.63	4.55	1.28	0.10841
3/15/2002 12:59:51 PM	46791	500	4.64	4.56	1.27	0.10433
3/15/2002 12:59:56 PM	46796	505	4.66	4.57	1.26	0.10021
3/15/2002 1:00:01 PM	46801	510	4.67	4.58	1.25	0.09640
3/15/2002 1:00:05 PM	46805	514	4.68	4.60	1.23	0.09115
3/15/2002 1:00:10 PM	46810	519	4.69	4.61	1.22	0.08726
3/15/2002 1:00:13 PM	46813	522	4.70	4.62	1.21	0.08369
3/15/2002 1:00:17 PM	46817	526	4.72	4.63	1.20	0.07937
3/15/2002 1:00:20 PM	46820	529	4.73	4.64	1.19	0.07538
3/15/2002 1:00:27 PM	46827	536	4.74	4.66	1.17	0.06987
3/15/2002 1:00:31 PM	46831	540	4.75	4.67	1.16	0.06578
3/15/2002 1:00:37 PM	46837	546	4.77	4.68	1.15	0.05939
3/15/2002 1:00:44 PM	46844	553	4.78	4.70	1.13	0.05482
3/15/2002 1:00:48 PM	46848	557	4.79	4.71	1.12	0.05059
3/15/2002 1:00:54 PM	46854	563	4.81	4.72	1.11	0.04514
3/15/2002 1:00:58 PM	46858	567	4.82	4.73	1.10	0.04042
3/15/2002 1:01:02 PM	46862	571	4.83	4.74	1.09	0.03644
3/15/2002 1:01:08 PM	46868	577	4.84	4.75	1.08	0.03203
3/15/2002 1:01:12 PM	46872	581	4.85	4.77	1.06	0.02716
3/15/2002 1:01:17 PM	46877	586	4.86	4.78	1.05	0.02224
3/15/2002 1:01:21 PM	46881	590	4.88	4.79	1.04	0.01726
3/15/2002 1:01:25 PM	46885	594	4.89	4.80	1.03	0.01222
3/15/2002 1:01:31 PM	46891	600	4.90	4.82	1.01	0.00627
3/15/2002 1:01:36 PM	46896	605	4.91	4.83	1.00	0.00153
3/15/2002 1:01:39 PM	46899	608	4.92	4.84	0.99	-0.00369
3/15/2002 1:01:43 PM	46903	612	4.94	4.85	0.98	-0.00898
3/15/2002 1:01:46 PM	46906	615	4.95	4.86	0.97	-0.01433
3/15/2002 1:01:48 PM	46908	617	4.96	4.87	0.96	-0.01930
3/15/2002 1:01:51 PM	46911	620	4.97	4.88	0.95	-0.02386
3/15/2002 1:01:53 PM	46913	622	4.98	4.90	0.93	-0.02940
3/15/2002 1:01:56 PM	46916	625	5.00	4.91	0.92	-0.03596
3/15/2002 1:01:59 PM	46919	628	5.01	4.92	0.91	-0.04262
3/15/2002 1:02:03 PM	46923	632	5.02	4.94	0.89	-0.04937
3/15/2002 1:02:05 PM	46925	634	5.04	4.95	0.88	-0.05624
3/15/2002 1:02:09 PM	46929	638	5.05	4.96	0.87	-0.06221
3/15/2002 1:02:10 PM	46930	639	5.06	4.98	0.85	-0.06827

Table B-4. Slug test on CD-1 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 1:02:13 PM	46933	642	5.07	4.99	0.84	-0.07390
3/15/2002 1:02:15 PM	46935	644	5.08	5.00	0.83	-0.08012
3/15/2002 1:02:17 PM	46937	646	5.10	5.01	0.82	-0.08643
3/15/2002 1:02:19 PM	46939	648	5.11	5.02	0.81	-0.09392
3/15/2002 1:02:22 PM	46942	651	5.13	5.04	0.79	-0.10318
3/15/2002 1:02:23 PM	46943	652	5.14	5.06	0.77	-0.11096
3/15/2002 1:02:25 PM	46945	654	5.16	5.07	0.76	-0.12002
3/15/2002 1:02:27 PM	46947	656	5.17	5.09	0.74	-0.12811
3/15/2002 1:02:29 PM	46949	658	5.19	5.10	0.73	-0.13695
3/15/2002 1:02:30 PM	46950	659	5.20	5.11	0.72	-0.14355
3/15/2002 1:02:32 PM	46952	661	5.21	5.12	0.71	-0.15087
3/15/2002 1:02:34 PM	46954	663	5.22	5.13	0.70	-0.15706
3/15/2002 1:02:35 PM	46955	664	5.23	5.14	0.69	-0.16397
3/15/2002 1:02:38 PM	46958	667	5.25	5.16	0.67	-0.17488
3/15/2002 1:02:40 PM	46960	669	5.26	5.18	0.65	-0.18407
3/15/2002 1:02:42 PM	46962	671	5.28	5.19	0.64	-0.19482
3/15/2002 1:02:44 PM	46964	673	5.29	5.20	0.63	-0.20305
3/15/2002 1:02:45 PM	46965	674	5.30	5.21	0.62	-0.21004
3/15/2002 1:02:48 PM	46968	677	5.31	5.23	0.60	-0.22002
3/15/2002 1:02:51 PM	46971	680	5.33	5.25	0.58	-0.23393
3/15/2002 1:02:54 PM	46974	683	5.34	5.26	0.57	-0.24220
3/15/2002 1:02:57 PM	46977	686	5.36	5.27	0.56	-0.25373
3/15/2002 1:03:00 PM	46980	689	5.37	5.28	0.55	-0.26238
3/15/2002 1:03:04 PM	46984	693	5.38	5.30	0.53	-0.27202
3/15/2002 1:03:10 PM	46990	699	5.39	5.31	0.52	-0.28188
3/15/2002 1:03:18 PM	46998	707	5.40	5.32	0.51	-0.29112
3/15/2002 1:03:27 PM	47007	716	5.42	5.33	0.50	-0.30143
3/15/2002 1:03:36 PM	47016	725	5.43	5.34	0.49	-0.31199
3/15/2002 1:03:45 PM	47025	734	5.44	5.35	0.48	-0.32282
3/15/2002 1:03:55 PM	47035	744	5.45	5.37	0.46	-0.33580
3/15/2002 1:04:06 PM	47046	755	5.47	5.38	0.45	-0.34724
3/15/2002 1:04:16 PM	47056	765	5.48	5.39	0.44	-0.36098
3/15/2002 1:04:30 PM	47070	779	5.49	5.41	0.42	-0.37311
3/15/2002 1:04:38 PM	47078	787	5.50	5.42	0.41	-0.38454
3/15/2002 1:04:49 PM	47089	798	5.52	5.43	0.40	-0.39736
3/15/2002 1:05:01 PM	47101	810	5.53	5.44	0.39	-0.40834
3/15/2002 1:05:11 PM	47111	820	5.54	5.45	0.38	-0.42075
3/15/2002 1:05:24 PM	47124	833	5.55	5.46	0.37	-0.43234
3/15/2002 1:05:41 PM	47141	850	5.56	5.47	0.36	-0.44668
3/15/2002 1:05:50 PM	47150	859	5.57	5.48	0.35	-0.46025
3/15/2002 1:06:05 PM	47165	874	5.58	5.50	0.33	-0.47556
3/15/2002 1:06:13 PM	47173	882	5.59	5.50	0.33	-0.48210

Table B-4. Slug test on CD-1

(Continued from previous page)

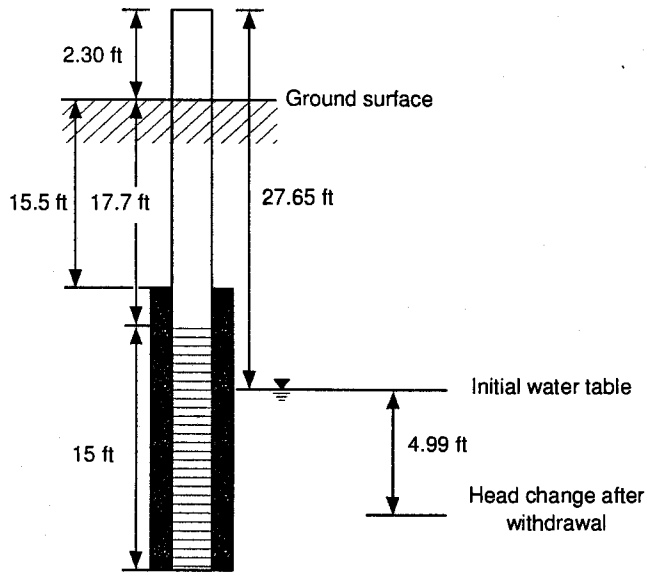
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	27.65	ft
Initial Head Change:	4.99	ft
Total well length:	35	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	2.07	ft
Drawdown at time = t (y_t):	1.01	ft
Elapsed Time between y_0 and y_t (t):	320	sec
Initial water column in well (L_w):	7.35	ft
$\ln(R_e/r_w)$ =	2.02	
K =	6.43E-06	ft/sec
	1.96E-04	
	202.67	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-5. Slug test on CD-2

Offset in logger reading (feet):	0.09	Date:	3/15/2002
Initial depth to water table (feet):	34.26		
Depth of probe below water table (feet):	6.38		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:18:24 PM	44304	0	1.54	1.45	4.93	0.69262
3/15/2002 12:18:25 PM	44305	1	1.58	1.50	4.88	0.68863
3/15/2002 12:18:26 PM	44306	2	1.87	1.78	4.60	0.66232
3/15/2002 12:18:27 PM	44307	3	2.18	2.09	4.29	0.63240
3/15/2002 12:18:28 PM	44308	4	2.45	2.36	4.02	0.60373
3/15/2002 12:18:29 PM	44309	5	2.68	2.60	3.78	0.57777
3/15/2002 12:18:30 PM	44310	6	2.87	2.79	3.59	0.55526
3/15/2002 12:18:31 PM	44311	7	3.04	2.95	3.43	0.53509
3/15/2002 12:18:32 PM	44312	8	3.18	3.09	3.29	0.51685
3/15/2002 12:18:33 PM	44313	9	3.31	3.22	3.16	0.49974
3/15/2002 12:18:34 PM	44314	10	3.41	3.33	3.05	0.48478
3/15/2002 12:18:35 PM	44315	11	3.49	3.41	2.97	0.47325
3/15/2002 12:18:36 PM	44316	12	3.54	3.46	2.92	0.46604
3/15/2002 12:18:37 PM	44317	13	3.57	3.49	2.89	0.46111
3/15/2002 12:18:38 PM	44318	14	3.60	3.51	2.87	0.45794
3/15/2002 12:18:39 PM	44319	15	3.62	3.53	2.85	0.45460
3/15/2002 12:18:40 PM	44320	16	3.63	3.55	2.83	0.45215
3/15/2002 12:18:41 PM	44321	17	3.65	3.56	2.82	0.45000
3/15/2002 12:18:42 PM	44322	18	3.66	3.58	2.80	0.44769
3/15/2002 12:18:43 PM	44323	19	3.68	3.59	2.79	0.44520
3/15/2002 12:18:44 PM	44324	20	3.69	3.61	2.77	0.44301
3/15/2002 12:18:45 PM	44325	21	3.71	3.62	2.76	0.44066
3/15/2002 12:18:46 PM	44326	22	3.72	3.64	2.74	0.43845
3/15/2002 12:18:47 PM	44327	23	3.73	3.65	2.73	0.43670
3/15/2002 12:18:48 PM	44328	24	3.75	3.66	2.72	0.43399
3/15/2002 12:18:50 PM	44330	26	3.78	3.69	2.69	0.42982
3/15/2002 12:18:51 PM	44331	27	3.79	3.70	2.68	0.42788
3/15/2002 12:18:52 PM	44332	28	3.80	3.72	2.66	0.42560
3/15/2002 12:18:53 PM	44333	29	3.81	3.73	2.65	0.42364
3/15/2002 12:18:54 PM	44334	30	3.83	3.74	2.64	0.42167
3/15/2002 12:18:55 PM	44335	31	3.84	3.75	2.63	0.41986
3/15/2002 12:18:56 PM	44336	32	3.85	3.77	2.61	0.41737
3/15/2002 12:18:57 PM	44337	33	3.86	3.78	2.60	0.41554
3/15/2002 12:18:58 PM	44338	34	3.88	3.79	2.59	0.41303
3/15/2002 12:18:59 PM	44339	35	3.89	3.80	2.58	0.41118
3/15/2002 12:19:00 PM	44340	36	3.90	3.81	2.57	0.40916
3/15/2002 12:19:01 PM	44341	37	3.91	3.83	2.55	0.40712
3/15/2002 12:19:02 PM	44342	38	3.92	3.84	2.54	0.40507
3/15/2002 12:19:03 PM	44343	39	3.94	3.85	2.53	0.40319
3/15/2002 12:19:04 PM	44344	40	3.95	3.86	2.52	0.40061
3/15/2002 12:19:05 PM	44345	41	3.96	3.88	2.50	0.39818
3/15/2002 12:19:06 PM	44346	42	3.98	3.89	2.49	0.39609
3/15/2002 12:19:07 PM	44347	43	3.99	3.90	2.48	0.39417
3/15/2002 12:19:08 PM	44348	44	4.00	3.91	2.47	0.39206
3/15/2002 12:19:09 PM	44349	45	4.01	3.93	2.45	0.38959
3/15/2002 12:19:10 PM	44350	46	4.03	3.94	2.44	0.38746
3/15/2002 12:19:11 PM	44351	47	4.04	3.95	2.43	0.38532
3/15/2002 12:19:12 PM	44352	48	4.05	3.96	2.42	0.38317

Table B-5. Slug test on CD-2

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:19:13 PM	44353	49	4.06	3.98	2.40	0.38101
3/15/2002 12:19:14 PM	44354	50	4.08	3.99	2.39	0.37847
3/15/2002 12:19:16 PM	44356	52	4.10	4.01	2.37	0.37464
3/15/2002 12:19:17 PM	44357	53	4.11	4.02	2.36	0.37243
3/15/2002 12:19:18 PM	44358	54	4.12	4.03	2.35	0.37040
3/15/2002 12:19:19 PM	44359	55	4.13	4.05	2.33	0.36818
3/15/2002 12:19:21 PM	44361	57	4.15	4.07	2.31	0.36425
3/15/2002 12:19:23 PM	44363	59	4.17	4.09	2.29	0.36067
3/15/2002 12:19:25 PM	44365	61	4.19	4.10	2.28	0.35744
3/15/2002 12:19:26 PM	44366	62	4.20	4.12	2.26	0.35476
3/15/2002 12:19:28 PM	44368	64	4.22	4.14	2.24	0.35071
3/15/2002 12:19:30 PM	44370	66	4.24	4.16	2.22	0.34663
3/15/2002 12:19:32 PM	44372	68	4.27	4.18	2.20	0.34151
3/15/2002 12:19:33 PM	44373	69	4.28	4.19	2.19	0.33953
3/15/2002 12:19:35 PM	44375	71	4.30	4.22	2.16	0.33534
3/15/2002 12:19:36 PM	44376	72	4.31	4.23	2.15	0.33292
3/15/2002 12:19:38 PM	44378	74	4.33	4.25	2.13	0.32866
3/15/2002 12:19:40 PM	44380	76	4.36	4.27	2.11	0.32436
3/15/2002 12:19:41 PM	44381	77	4.37	4.28	2.10	0.32189
3/15/2002 12:19:43 PM	44383	79	4.39	4.30	2.08	0.31794
3/15/2002 12:19:44 PM	44384	80	4.40	4.31	2.07	0.31563
3/15/2002 12:19:45 PM	44385	81	4.41	4.32	2.06	0.31311
3/15/2002 12:19:47 PM	44387	83	4.43	4.34	2.04	0.30908
3/15/2002 12:19:49 PM	44389	85	4.45	4.36	2.02	0.30501
3/15/2002 12:19:50 PM	44390	86	4.46	4.37	2.01	0.30242
3/15/2002 12:19:52 PM	44392	88	4.48	4.39	1.99	0.29894
3/15/2002 12:19:53 PM	44393	89	4.49	4.40	1.98	0.29675
3/15/2002 12:19:55 PM	44395	91	4.50	4.42	1.96	0.29279
3/15/2002 12:19:57 PM	44397	93	4.52	4.44	1.94	0.28856
3/15/2002 12:19:59 PM	44399	95	4.54	4.46	1.92	0.28430
3/15/2002 12:20:01 PM	44401	97	4.56	4.47	1.91	0.28044
3/15/2002 12:20:03 PM	44403	99	4.57	4.49	1.89	0.27678
3/15/2002 12:20:04 PM	44404	100	4.59	4.50	1.88	0.27402
3/15/2002 12:20:06 PM	44406	102	4.60	4.52	1.86	0.27007
3/15/2002 12:20:08 PM	44408	104	4.62	4.54	1.84	0.26586
3/15/2002 12:20:10 PM	44410	106	4.64	4.55	1.83	0.26231
3/15/2002 12:20:12 PM	44412	108	4.65	4.57	1.81	0.25801
3/15/2002 12:20:14 PM	44414	110	4.67	4.59	1.79	0.25343
3/15/2002 12:20:16 PM	44416	112	4.69	4.61	1.77	0.24881
3/15/2002 12:20:18 PM	44418	114	4.71	4.63	1.75	0.24413
3/15/2002 12:20:20 PM	44420	116	4.73	4.65	1.73	0.23840
3/15/2002 12:20:21 PM	44421	117	4.75	4.67	1.71	0.23411
3/15/2002 12:20:22 PM	44422	118	4.77	4.69	1.69	0.22876
3/15/2002 12:20:23 PM	44423	119	4.80	4.71	1.67	0.22152
3/15/2002 12:20:24 PM	44424	120	4.83	4.75	1.63	0.21336
3/15/2002 12:20:25 PM	44425	121	4.86	4.78	1.60	0.20531
3/15/2002 12:20:26 PM	44426	122	4.89	4.80	1.58	0.19877
3/15/2002 12:20:27 PM	44427	123	4.91	4.82	1.56	0.19212
3/15/2002 12:20:28 PM	44428	124	4.93	4.84	1.54	0.18622
3/15/2002 12:20:29 PM	44429	125	4.95	4.86	1.52	0.18167
3/15/2002 12:20:30 PM	44430	126	4.96	4.88	1.50	0.17679
3/15/2002 12:20:31 PM	44431	127	4.98	4.89	1.49	0.17330

Table B-5. Slug test on CD-2 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:20:32 PM	44432	128	4.99	4.90	1.48	0.17009
3/15/2002 12:20:33 PM	44433	129	5.00	4.91	1.47	0.16655
3/15/2002 12:20:34 PM	44434	130	5.01	4.92	1.46	0.16298
3/15/2002 12:20:35 PM	44435	131	5.02	4.94	1.44	0.15878
3/15/2002 12:20:36 PM	44436	132	5.04	4.95	1.43	0.15515
3/15/2002 12:20:37 PM	44437	133	5.05	4.96	1.42	0.15088
3/15/2002 12:20:38 PM	44438	134	5.06	4.98	1.40	0.14656
3/15/2002 12:20:39 PM	44439	135	5.09	5.00	1.38	0.13906
3/15/2002 12:20:40 PM	44440	136	5.11	5.02	1.36	0.13239
3/15/2002 12:20:41 PM	44441	137	5.13	5.04	1.34	0.12626
3/15/2002 12:20:42 PM	44442	138	5.14	5.06	1.32	0.12103
3/15/2002 12:20:43 PM	44443	139	5.16	5.07	1.31	0.11707
3/15/2002 12:20:44 PM	44444	140	5.17	5.08	1.30	0.11408
3/15/2002 12:20:45 PM	44445	141	5.18	5.09	1.29	0.11005
3/15/2002 12:20:47 PM	44447	143	5.19	5.10	1.28	0.10599
3/15/2002 12:20:49 PM	44449	145	5.20	5.12	1.26	0.10188
3/15/2002 12:20:51 PM	44451	147	5.21	5.13	1.25	0.09809
3/15/2002 12:20:53 PM	44453	149	5.22	5.14	1.24	0.09391
3/15/2002 12:20:56 PM	44456	152	5.24	5.16	1.22	0.08792
3/15/2002 12:20:58 PM	44458	154	5.26	5.17	1.21	0.08293
3/15/2002 12:21:01 PM	44461	157	5.27	5.18	1.20	0.07860
3/15/2002 12:21:04 PM	44464	160	5.28	5.20	1.18	0.07350
3/15/2002 12:21:06 PM	44466	162	5.29	5.21	1.17	0.06908
3/15/2002 12:21:08 PM	44468	164	5.31	5.22	1.16	0.06386
3/15/2002 12:21:11 PM	44471	167	5.32	5.24	1.14	0.05782
3/15/2002 12:21:14 PM	44474	170	5.34	5.25	1.13	0.05246
3/15/2002 12:21:16 PM	44476	172	5.35	5.26	1.12	0.04860
3/15/2002 12:21:18 PM	44478	174	5.36	5.27	1.11	0.04391
3/15/2002 12:21:21 PM	44481	177	5.38	5.29	1.09	0.03759
3/15/2002 12:21:24 PM	44484	180	5.39	5.30	1.08	0.03278
3/15/2002 12:21:27 PM	44487	183	5.40	5.32	1.06	0.02710
3/15/2002 12:21:30 PM	44490	186	5.42	5.33	1.05	0.02135
3/15/2002 12:21:34 PM	44494	190	5.43	5.35	1.03	0.01469
3/15/2002 12:21:37 PM	44497	193	5.45	5.36	1.02	0.00749
3/15/2002 12:21:41 PM	44501	197	5.46	5.38	1.00	0.00061
3/15/2002 12:21:44 PM	44504	200	5.48	5.39	0.99	-0.00463
3/15/2002 12:21:47 PM	44507	203	5.49	5.40	0.98	-0.01082
3/15/2002 12:21:50 PM	44510	206	5.50	5.42	0.96	-0.01619
3/15/2002 12:21:53 PM	44513	209	5.51	5.43	0.95	-0.02164
3/15/2002 12:21:56 PM	44516	212	5.53	5.44	0.94	-0.02669
3/15/2002 12:22:00 PM	44520	216	5.54	5.45	0.93	-0.03226
3/15/2002 12:22:03 PM	44523	219	5.55	5.47	0.91	-0.03886
3/15/2002 12:22:06 PM	44526	222	5.56	5.48	0.90	-0.04460
3/15/2002 12:22:10 PM	44530	226	5.58	5.49	0.89	-0.05041
3/15/2002 12:22:13 PM	44533	229	5.59	5.50	0.88	-0.05631
3/15/2002 12:22:17 PM	44537	233	5.60	5.51	0.87	-0.06178
3/15/2002 12:22:20 PM	44540	236	5.61	5.52	0.86	-0.06783
3/15/2002 12:22:24 PM	44544	240	5.62	5.54	0.84	-0.07397
3/15/2002 12:22:28 PM	44548	244	5.64	5.55	0.83	-0.08124
3/15/2002 12:22:32 PM	44552	248	5.65	5.56	0.82	-0.08757
3/15/2002 12:22:36 PM	44556	252	5.66	5.57	0.81	-0.09399
3/15/2002 12:22:39 PM	44559	255	5.67	5.59	0.79	-0.09996

Table B-5. Slug test on CD-2 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 12:22:43 PM	44563	259	5.68	5.60	0.78	-0.10657
3/15/2002 12:22:47 PM	44567	263	5.70	5.61	0.77	-0.11441
3/15/2002 12:22:51 PM	44571	267	5.71	5.62	0.76	-0.12125
3/15/2002 12:22:56 PM	44576	272	5.72	5.64	0.74	-0.12936
3/15/2002 12:22:59 PM	44579	275	5.74	5.65	0.73	-0.13763
3/15/2002 12:23:03 PM	44583	279	5.75	5.66	0.72	-0.14484
3/15/2002 12:23:07 PM	44587	283	5.76	5.68	0.70	-0.15218
3/15/2002 12:23:13 PM	44593	289	5.78	5.69	0.69	-0.16090
3/15/2002 12:23:16 PM	44596	292	5.79	5.70	0.68	-0.16980
3/15/2002 12:23:20 PM	44600	296	5.80	5.71	0.67	-0.17692
3/15/2002 12:23:24 PM	44604	300	5.81	5.72	0.66	-0.18349
3/15/2002 12:23:25 PM	44605	301	5.82	5.73	0.65	-0.18682
3/15/2002 12:23:29 PM	44609	305	5.83	5.74	0.64	-0.19423
3/15/2002 12:23:31 PM	44611	307	5.84	5.75	0.63	-0.20107
3/15/2002 12:23:35 PM	44615	311	5.85	5.77	0.61	-0.21226
3/15/2002 12:23:38 PM	44618	314	5.86	5.78	0.60	-0.22084
3/15/2002 12:23:41 PM	44621	317	5.88	5.79	0.59	-0.22959
3/15/2002 12:23:44 PM	44624	320	5.89	5.80	0.58	-0.24003
3/15/2002 12:23:47 PM	44627	323	5.90	5.82	0.56	-0.25073
3/15/2002 12:23:50 PM	44630	326	5.92	5.83	0.55	-0.26170
3/15/2002 12:23:52 PM	44632	328	5.93	5.84	0.54	-0.27132
3/15/2002 12:23:55 PM	44635	331	5.94	5.86	0.52	-0.28283
3/15/2002 12:23:57 PM	44637	333	5.96	5.87	0.51	-0.29294
3/15/2002 12:24:00 PM	44640	336	5.97	5.89	0.49	-0.30680
3/15/2002 12:24:02 PM	44642	338	5.98	5.90	0.48	-0.31749
3/15/2002 12:24:05 PM	44645	341	6.00	5.91	0.47	-0.33217
3/15/2002 12:24:08 PM	44648	344	6.02	5.93	0.45	-0.34833
3/15/2002 12:24:11 PM	44651	347	6.03	5.95	0.43	-0.36411
3/15/2002 12:24:13 PM	44653	349	6.05	5.96	0.42	-0.37634
3/15/2002 12:24:16 PM	44656	352	6.06	5.97	0.41	-0.39105
3/15/2002 12:24:19 PM	44659	355	6.08	5.99	0.39	-0.40960
3/15/2002 12:24:22 PM	44662	358	6.09	6.00	0.38	-0.42205
3/15/2002 12:24:24 PM	44664	360	6.10	6.01	0.37	-0.43604
3/15/2002 12:24:28 PM	44668	364	6.12	6.03	0.35	-0.45917
3/15/2002 12:24:31 PM	44671	367	6.13	6.05	0.33	-0.47703
3/15/2002 12:24:33 PM	44673	369	6.14	6.06	0.32	-0.49295
3/15/2002 12:24:36 PM	44676	372	6.16	6.07	0.31	-0.51230
3/15/2002 12:24:39 PM	44679	375	6.17	6.08	0.30	-0.52959
3/15/2002 12:24:42 PM	44682	378	6.18	6.10	0.28	-0.55068
3/15/2002 12:24:45 PM	44685	381	6.20	6.11	0.27	-0.56960
3/15/2002 12:24:48 PM	44688	384	6.21	6.12	0.26	-0.59278
3/15/2002 12:24:51 PM	44691	387	6.22	6.14	0.24	-0.61368
3/15/2002 12:24:54 PM	44694	390	6.23	6.15	0.23	-0.63376
3/15/2002 12:24:58 PM	44698	394	6.24	6.16	0.22	-0.65287
3/15/2002 12:25:03 PM	44703	399	6.26	6.17	0.21	-0.68110
3/15/2002 12:25:08 PM	44708	404	6.27	6.19	0.19	-0.71130
3/15/2002 12:25:13 PM	44713	409	6.28	6.20	0.18	-0.73898
3/15/2002 12:25:18 PM	44718	414	6.30	6.21	0.17	-0.76853
3/15/2002 12:25:26 PM	44726	422	6.31	6.22	0.16	-0.79751
3/15/2002 12:25:31 PM	44731	427	6.32	6.23	0.15	-0.83150
3/15/2002 12:25:38 PM	44738	434	6.33	6.24	0.14	-0.86838
3/15/2002 12:25:41 PM	44741	437	6.33	6.25	0.13	-0.88140

Table B-5. Slug test on CD-2 *(Continued from previous page)*

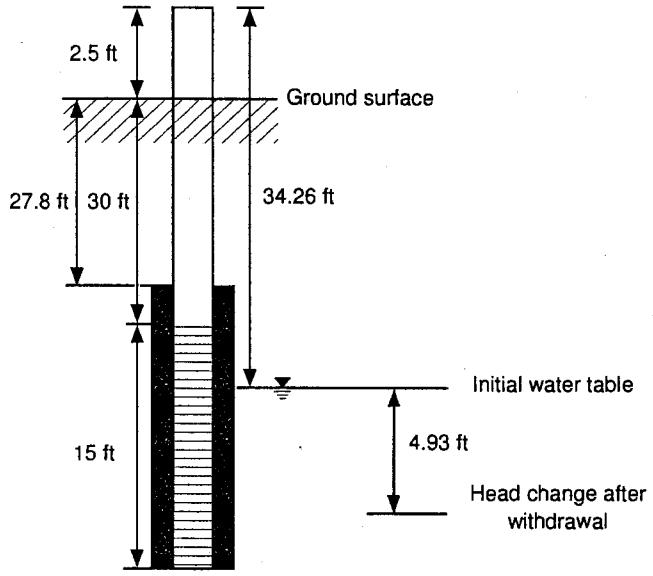
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	34.26	ft
Initial Head Change:	4.93	ft
Total well length:	47.5	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	1.30	ft
Drawdown at time = t (y_t):	0.66	ft
Elapsed Time between y_0 and y_t (t):	160	sec
Initial water column in well (L_w):	13.24	ft
$\ln(R_e/r_w)$ =	2.30	
K =	1.38E-05	ft/sec
	4.20E-04	
	434.76	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-6. Slug test on CD-3

Offset in logger reading (feet):	0.12	Date:	3/14/2002
Initial depth to water table (feet):	32.81		
Depth of probe below water table (feet):	5.00		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 4:19:09 PM	58749	0	0.64	0.53	4.47	0.65075
3/14/2002 4:19:10 PM	58750	1	0.75	0.63	4.37	0.64014
3/14/2002 4:19:11 PM	58751	2	0.87	0.76	4.24	0.62773
3/14/2002 4:19:12 PM	58752	3	0.91	0.80	4.20	0.62362
3/14/2002 4:19:13 PM	58753	4	0.93	0.81	4.19	0.62196
3/14/2002 4:19:15 PM	58755	6	0.95	0.83	4.17	0.62019
3/14/2002 4:19:17 PM	58757	8	0.96	0.85	4.15	0.61821
3/14/2002 4:19:19 PM	58759	10	0.98	0.86	4.14	0.61706
3/14/2002 4:19:23 PM	58763	14	0.99	0.87	4.13	0.61559
3/14/2002 4:19:27 PM	58767	18	1.00	0.88	4.12	0.61453
3/14/2002 4:19:33 PM	58773	24	1.01	0.89	4.11	0.61337
3/14/2002 4:19:40 PM	58780	31	1.02	0.91	4.09	0.61210
3/14/2002 4:19:45 PM	58785	36	1.03	0.92	4.08	0.61093
3/14/2002 4:19:50 PM	58790	41	1.05	0.93	4.07	0.60965
3/14/2002 4:19:55 PM	58795	46	1.06	0.94	4.06	0.60848
3/14/2002 4:20:01 PM	58801	52	1.07	0.95	4.05	0.60719
3/14/2002 4:20:06 PM	58806	57	1.08	0.97	4.03	0.60569
3/14/2002 4:20:11 PM	58811	62	1.09	0.98	4.02	0.60450
3/14/2002 4:20:15 PM	58815	66	1.10	0.99	4.01	0.60342
3/14/2002 4:20:20 PM	58820	71	1.11	1.00	4.00	0.60223
3/14/2002 4:20:25 PM	58825	76	1.13	1.01	3.99	0.60092
3/14/2002 4:20:32 PM	58832	83	1.14	1.02	3.98	0.59940
3/14/2002 4:20:39 PM	58839	90	1.15	1.04	3.96	0.59808
3/14/2002 4:20:44 PM	58844	95	1.16	1.05	3.95	0.59688
3/14/2002 4:20:49 PM	58849	100	1.18	1.06	3.94	0.59556
3/14/2002 4:20:55 PM	58855	106	1.19	1.07	3.93	0.59423
3/14/2002 4:21:02 PM	58862	113	1.20	1.08	3.92	0.59301
3/14/2002 4:21:07 PM	58867	118	1.21	1.09	3.91	0.59168
3/14/2002 4:21:13 PM	58873	124	1.22	1.11	3.89	0.59035
3/14/2002 4:21:19 PM	58879	130	1.23	1.12	3.88	0.58901
3/14/2002 4:21:25 PM	58885	136	1.25	1.13	3.87	0.58777
3/14/2002 4:21:32 PM	58892	143	1.26	1.14	3.86	0.58642
3/14/2002 4:21:39 PM	58899	150	1.27	1.16	3.84	0.58485
3/14/2002 4:21:44 PM	58904	155	1.28	1.17	3.83	0.58371
3/14/2002 4:21:53 PM	58913	164	1.30	1.18	3.82	0.58213
3/14/2002 4:22:00 PM	58920	171	1.31	1.19	3.81	0.58087
3/14/2002 4:22:05 PM	58925	176	1.32	1.20	3.80	0.57950
3/14/2002 4:22:12 PM	58932	183	1.33	1.21	3.79	0.57813
3/14/2002 4:22:20 PM	58940	191	1.34	1.23	3.77	0.57687
3/14/2002 4:22:26 PM	58946	197	1.35	1.24	3.76	0.57548
3/14/2002 4:22:34 PM	58954	205	1.37	1.25	3.75	0.57410
3/14/2002 4:22:42 PM	58962	213	1.38	1.26	3.74	0.57270
3/14/2002 4:22:48 PM	58968	219	1.39	1.27	3.73	0.57142
3/14/2002 4:22:53 PM	58973	224	1.40	1.28	3.72	0.57026
3/14/2002 4:23:01 PM	58981	232	1.41	1.29	3.71	0.56897
3/14/2002 4:23:06 PM	58986	237	1.42	1.30	3.70	0.56780
3/14/2002 4:23:14 PM	58994	245	1.43	1.31	3.69	0.56650
3/14/2002 4:23:20 PM	59000	251	1.44	1.32	3.68	0.56532

Table B-6. Slug test on CD-3 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 4:23:27 PM	59007	258	1.45	1.34	3.66	0.56390
3/14/2002 4:23:35 PM	59015	266	1.46	1.35	3.65	0.56260
3/14/2002 4:23:40 PM	59020	271	1.47	1.36	3.64	0.56141
3/14/2002 4:23:48 PM	59028	279	1.48	1.37	3.63	0.56009
3/14/2002 4:23:55 PM	59035	286	1.49	1.38	3.62	0.55889
3/14/2002 4:24:02 PM	59042	293	1.51	1.39	3.61	0.55757
3/14/2002 4:24:08 PM	59048	299	1.52	1.40	3.60	0.55637
3/14/2002 4:24:16 PM	59056	307	1.53	1.41	3.59	0.55504
3/14/2002 4:24:23 PM	59063	314	1.54	1.42	3.58	0.55383
3/14/2002 4:24:30 PM	59070	321	1.55	1.43	3.57	0.55249
3/14/2002 4:24:37 PM	59077	328	1.56	1.44	3.56	0.55103
3/14/2002 4:24:46 PM	59086	337	1.57	1.46	3.54	0.54956
3/14/2002 4:24:54 PM	59094	345	1.58	1.47	3.53	0.54821
3/14/2002 4:25:01 PM	59101	352	1.59	1.48	3.52	0.54698
3/14/2002 4:25:10 PM	59110	361	1.61	1.49	3.51	0.54525
3/14/2002 4:25:18 PM	59118	369	1.62	1.50	3.50	0.54389
3/14/2002 4:25:26 PM	59126	377	1.63	1.51	3.49	0.54265
3/14/2002 4:25:35 PM	59135	386	1.64	1.52	3.48	0.54127
3/14/2002 4:25:43 PM	59143	394	1.65	1.53	3.47	0.54002
3/14/2002 4:25:51 PM	59151	402	1.66	1.54	3.46	0.53852
3/14/2002 4:25:59 PM	59159	410	1.67	1.56	3.44	0.53713
3/14/2002 4:26:08 PM	59168	419	1.68	1.57	3.43	0.53562
3/14/2002 4:26:14 PM	59174	425	1.69	1.58	3.42	0.53435
3/14/2002 4:26:25 PM	59185	436	1.71	1.59	3.41	0.53257
3/14/2002 4:26:34 PM	59194	445	1.72	1.60	3.40	0.53117
3/14/2002 4:26:42 PM	59202	453	1.73	1.61	3.39	0.52989
3/14/2002 4:26:53 PM	59213	464	1.74	1.62	3.38	0.52834
3/14/2002 4:27:04 PM	59224	475	1.75	1.64	3.36	0.52654
3/14/2002 4:27:14 PM	59234	485	1.77	1.65	3.35	0.52499
3/14/2002 4:27:24 PM	59244	495	1.78	1.66	3.34	0.52356
3/14/2002 4:27:34 PM	59254	505	1.79	1.67	3.33	0.52199
3/14/2002 4:27:42 PM	59262	513	1.80	1.68	3.32	0.52069
3/14/2002 4:27:55 PM	59275	526	1.81	1.69	3.31	0.51924
3/14/2002 4:28:04 PM	59284	535	1.82	1.71	3.29	0.51766
3/14/2002 4:28:13 PM	59293	544	1.83	1.72	3.28	0.51634
3/14/2002 4:28:22 PM	59302	553	1.84	1.73	3.27	0.51489
3/14/2002 4:28:32 PM	59312	563	1.86	1.74	3.26	0.51329
3/14/2002 4:28:45 PM	59325	576	1.87	1.75	3.25	0.51169
3/14/2002 4:28:56 PM	59336	587	1.88	1.76	3.24	0.51008
3/14/2002 4:29:04 PM	59344	595	1.89	1.78	3.22	0.50847
3/14/2002 4:29:13 PM	59353	604	1.90	1.79	3.21	0.50699
3/14/2002 4:29:24 PM	59364	615	1.91	1.80	3.20	0.50536
3/14/2002 4:29:33 PM	59373	624	1.92	1.81	3.19	0.50400
3/14/2002 4:29:43 PM	59383	634	1.94	1.82	3.18	0.50250
3/14/2002 4:29:53 PM	59393	644	1.95	1.83	3.17	0.50086
3/14/2002 4:30:05 PM	59405	656	1.96	1.84	3.16	0.49921
3/14/2002 4:30:14 PM	59414	665	1.97	1.86	3.14	0.49756
3/14/2002 4:30:23 PM	59423	674	1.98	1.87	3.13	0.49590
3/14/2002 4:30:35 PM	59435	686	1.99	1.88	3.12	0.49437
3/14/2002 4:30:44 PM	59444	695	2.00	1.89	3.11	0.49298
3/14/2002 4:30:53 PM	59453	704	2.02	1.90	3.10	0.49130
3/14/2002 4:31:06 PM	59466	717	2.03	1.91	3.09	0.48961

Table B-6. Slug test on CD-3 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 4:31:16 PM	59476	727	2.04	1.92	3.08	0.48806
3/14/2002 4:31:27 PM	59487	738	2.05	1.94	3.06	0.48637
3/14/2002 4:31:36 PM	59496	747	2.06	1.95	3.05	0.48466
3/14/2002 4:31:43 PM	59503	754	2.08	1.96	3.04	0.48295
3/14/2002 4:31:53 PM	59513	764	2.09	1.97	3.03	0.48095
3/14/2002 4:32:02 PM	59522	773	2.10	1.99	3.01	0.47922
3/14/2002 4:32:12 PM	59532	783	2.11	2.00	3.00	0.47764
3/14/2002 4:32:16 PM	59536	787	2.12	2.01	2.99	0.47619
3/14/2002 4:32:27 PM	59547	798	2.13	2.02	2.98	0.47444
3/14/2002 4:32:39 PM	59559	810	2.15	2.03	2.97	0.47284
3/14/2002 4:32:54 PM	59574	825	2.16	2.04	2.96	0.47108
3/14/2002 4:33:03 PM	59583	834	2.17	2.05	2.95	0.46931
3/14/2002 4:33:19 PM	59599	850	2.18	2.07	2.93	0.46754
3/14/2002 4:33:28 PM	59608	859	2.19	2.08	2.92	0.46576
3/14/2002 4:33:42 PM	59622	873	2.20	2.09	2.91	0.46412
3/14/2002 4:33:52 PM	59632	883	2.22	2.10	2.90	0.46233
3/14/2002 4:34:02 PM	59642	893	2.23	2.11	2.89	0.46053
3/14/2002 4:34:16 PM	59656	907	2.24	2.13	2.87	0.45842
3/14/2002 4:34:27 PM	59667	918	2.25	2.14	2.86	0.45660
3/14/2002 4:34:36 PM	59676	927	2.27	2.15	2.85	0.45478
3/14/2002 4:34:45 PM	59685	936	2.28	2.16	2.84	0.45294
3/14/2002 4:34:55 PM	59695	946	2.29	2.17	2.83	0.45110
3/14/2002 4:35:05 PM	59705	956	2.30	2.19	2.81	0.44925
3/14/2002 4:35:14 PM	59714	965	2.31	2.20	2.80	0.44755
3/14/2002 4:35:24 PM	59724	975	2.33	2.21	2.79	0.44569
3/14/2002 4:35:34 PM	59734	985	2.34	2.22	2.78	0.44382
3/14/2002 4:35:42 PM	59742	993	2.35	2.23	2.77	0.44194
3/14/2002 4:35:50 PM	59750	1001	2.36	2.25	2.75	0.44005
3/14/2002 4:35:58 PM	59758	1009	2.37	2.26	2.74	0.43831
3/14/2002 4:36:01 PM	59761	1012	2.38	2.27	2.73	0.43641
3/14/2002 4:36:04 PM	59764	1015	2.37	2.26	2.74	0.43831
3/14/2002 4:36:06 PM	59766	1017	2.38	2.27	2.73	0.43673
3/14/2002 4:36:16 PM	59776	1027	2.39	2.28	2.72	0.43482
3/14/2002 4:36:26 PM	59786	1037	2.41	2.29	2.71	0.43290
3/14/2002 4:36:36 PM	59796	1047	2.42	2.30	2.70	0.43113
3/14/2002 4:36:46 PM	59806	1057	2.43	2.31	2.69	0.42952
3/14/2002 4:37:02 PM	59822	1073	2.44	2.32	2.68	0.42758
3/14/2002 4:37:14 PM	59834	1085	2.45	2.34	2.66	0.42562
3/14/2002 4:37:23 PM	59843	1094	2.46	2.35	2.65	0.42383
3/14/2002 4:37:38 PM	59858	1109	2.48	2.36	2.64	0.42153
3/14/2002 4:37:50 PM	59870	1121	2.49	2.37	2.63	0.41988
3/14/2002 4:38:03 PM	59883	1134	2.50	2.38	2.62	0.41790
3/14/2002 4:38:17 PM	59897	1148	2.51	2.39	2.61	0.41607
3/14/2002 4:38:25 PM	59905	1156	2.52	2.40	2.60	0.41440
3/14/2002 4:38:35 PM	59915	1166	2.53	2.42	2.58	0.41239
3/14/2002 4:38:46 PM	59926	1177	2.54	2.43	2.57	0.41053
3/14/2002 4:38:58 PM	59938	1189	2.55	2.44	2.56	0.40884
3/14/2002 4:39:08 PM	59948	1199	2.56	2.45	2.55	0.40680
3/14/2002 4:39:21 PM	59961	1212	2.58	2.46	2.54	0.40476
3/14/2002 4:39:32 PM	59972	1223	2.59	2.47	2.53	0.40287
3/14/2002 4:39:47 PM	59987	1238	2.60	2.48	2.52	0.40081
3/14/2002 4:40:01 PM	60001	1252	2.61	2.50	2.50	0.39873

Table B-6. Slug test on CD-3 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 4:40:15 PM	60015	1266	2.62	2.51	2.49	0.39664
3/14/2002 4:40:30 PM	60030	1281	2.64	2.52	2.48	0.39455
3/14/2002 4:40:44 PM	60044	1295	2.65	2.53	2.47	0.39244
3/14/2002 4:40:57 PM	60057	1308	2.66	2.54	2.46	0.39050
3/14/2002 4:41:08 PM	60068	1319	2.67	2.55	2.45	0.38873
3/14/2002 4:41:22 PM	60082	1333	2.68	2.56	2.44	0.38660
3/14/2002 4:41:35 PM	60095	1346	2.69	2.58	2.42	0.38463
3/14/2002 4:41:46 PM	60106	1357	2.70	2.59	2.41	0.38284
3/14/2002 4:42:01 PM	60121	1372	2.71	2.60	2.40	0.38067
3/14/2002 4:42:14 PM	60134	1385	2.73	2.61	2.39	0.37850
3/14/2002 4:42:30 PM	60150	1401	2.74	2.62	2.38	0.37650
3/14/2002 4:42:39 PM	60159	1410	2.75	2.63	2.37	0.37430
3/14/2002 4:42:55 PM	60175	1426	2.76	2.64	2.36	0.37209
3/14/2002 4:43:06 PM	60186	1437	2.77	2.65	2.35	0.37024
3/14/2002 4:43:21 PM	60201	1452	2.78	2.67	2.33	0.36820
3/14/2002 4:43:33 PM	60213	1464	2.79	2.68	2.32	0.36597
3/14/2002 4:43:49 PM	60229	1480	2.81	2.69	2.31	0.36372
3/14/2002 4:44:05 PM	60245	1496	2.82	2.70	2.30	0.36145
3/14/2002 4:44:16 PM	60256	1507	2.83	2.71	2.29	0.35918
3/14/2002 4:44:31 PM	60271	1522	2.84	2.72	2.28	0.35709
3/14/2002 4:44:42 PM	60282	1533	2.85	2.73	2.27	0.35517
3/14/2002 4:44:58 PM	60298	1549	2.86	2.75	2.25	0.35287
3/14/2002 4:45:13 PM	60313	1564	2.87	2.76	2.24	0.35055
3/14/2002 4:45:27 PM	60327	1578	2.89	2.77	2.23	0.34841
3/14/2002 4:45:40 PM	60340	1591	2.90	2.78	2.22	0.34646
3/14/2002 4:45:55 PM	60355	1606	2.91	2.79	2.21	0.34411
3/14/2002 4:46:09 PM	60369	1620	2.92	2.80	2.20	0.34174
3/14/2002 4:46:24 PM	60384	1635	2.93	2.81	2.19	0.33956
3/14/2002 4:46:39 PM	60399	1650	2.94	2.83	2.17	0.33717
3/14/2002 4:46:54 PM	60414	1665	2.95	2.84	2.16	0.33477
3/14/2002 4:47:08 PM	60428	1679	2.97	2.85	2.15	0.33235
3/14/2002 4:47:23 PM	60443	1694	2.98	2.86	2.14	0.32992
3/14/2002 4:47:38 PM	60458	1709	2.99	2.87	2.13	0.32768
3/14/2002 4:47:49 PM	60469	1720	3.00	2.88	2.12	0.32563
3/14/2002 4:48:05 PM	60485	1736	3.01	2.90	2.10	0.32316
3/14/2002 4:48:19 PM	60499	1750	3.02	2.91	2.09	0.32068
3/14/2002 4:48:34 PM	60514	1765	3.03	2.92	2.08	0.31839
3/14/2002 4:48:44 PM	60524	1775	3.04	2.93	2.07	0.31630
3/14/2002 4:49:01 PM	60541	1792	3.06	2.94	2.06	0.31377
3/14/2002 4:49:15 PM	60555	1806	3.07	2.95	2.05	0.31145
3/14/2002 4:49:28 PM	60568	1819	3.08	2.96	2.04	0.30890
3/14/2002 4:49:45 PM	60585	1836	3.09	2.98	2.02	0.30590
3/14/2002 4:49:55 PM	60595	1846	3.10	2.99	2.01	0.30375
3/14/2002 4:50:10 PM	60610	1861	3.12	3.00	2.00	0.30115
3/14/2002 4:50:23 PM	60623	1874	3.13	3.01	1.99	0.29854
3/14/2002 4:50:41 PM	60641	1892	3.14	3.02	1.98	0.29613
3/14/2002 4:50:52 PM	60652	1903	3.15	3.03	1.97	0.29393
3/14/2002 4:51:06 PM	60666	1917	3.16	3.04	1.96	0.29127
3/14/2002 4:51:20 PM	60680	1931	3.17	3.06	1.94	0.28860
3/14/2002 4:51:34 PM	60694	1945	3.18	3.07	1.93	0.28613
3/14/2002 4:51:48 PM	60708	1959	3.19	3.08	1.92	0.28388
3/14/2002 4:52:05 PM	60725	1976	3.21	3.09	1.91	0.28116

Table B-6. Slug test on CD-3 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 4:52:20 PM	60740	1991	3.22	3.10	1.90	0.27865
3/14/2002 4:52:35 PM	60755	2006	3.23	3.11	1.89	0.27590
3/14/2002 4:52:49 PM	60769	2020	3.24	3.12	1.88	0.27313
3/14/2002 4:53:06 PM	60786	2037	3.25	3.14	1.86	0.27034
3/14/2002 4:53:22 PM	60802	2053	3.26	3.15	1.85	0.26754
3/14/2002 4:53:36 PM	60816	2067	3.28	3.16	1.84	0.26495
3/14/2002 4:53:51 PM	60831	2082	3.29	3.17	1.83	0.26258
3/14/2002 4:54:07 PM	60847	2098	3.30	3.18	1.82	0.25973
3/14/2002 4:54:22 PM	60862	2113	3.31	3.19	1.81	0.25685
3/14/2002 4:54:37 PM	60877	2128	3.32	3.20	1.80	0.25420
3/14/2002 4:54:51 PM	60891	2142	3.33	3.21	1.79	0.25177
3/14/2002 4:55:07 PM	60907	2158	3.34	3.23	1.77	0.24884
3/14/2002 4:55:28 PM	60928	2179	3.35	3.24	1.76	0.24614
3/14/2002 4:55:39 PM	60939	2190	3.37	3.25	1.75	0.24317
3/14/2002 4:55:49 PM	60949	2200	3.37	3.26	1.74	0.24143
3/14/2002 4:55:59 PM	60959	2210	3.38	3.26	1.74	0.24019
3/14/2002 4:56:09 PM	60969	2220	3.39	3.27	1.73	0.23718
3/14/2002 4:56:22 PM	60982	2233	3.40	3.29	1.71	0.23415
3/14/2002 4:56:35 PM	60995	2246	3.41	3.30	1.70	0.23136
3/14/2002 4:56:48 PM	61008	2259	3.42	3.31	1.69	0.22880
3/14/2002 4:56:57 PM	61017	2268	3.43	3.32	1.68	0.22571
3/14/2002 4:57:06 PM	61026	2277	3.45	3.33	1.67	0.22286
3/14/2002 4:57:13 PM	61033	2284	3.46	3.34	1.66	0.22025
3/14/2002 4:57:20 PM	61040	2291	3.47	3.35	1.65	0.21710
3/14/2002 4:57:27 PM	61047	2298	3.48	3.36	1.64	0.21419
3/14/2002 4:57:33 PM	61053	2304	3.49	3.37	1.63	0.21100
3/14/2002 4:57:40 PM	61060	2311	3.50	3.39	1.61	0.20778
3/14/2002 4:57:46 PM	61066	2317	3.52	3.40	1.60	0.20400
3/14/2002 4:57:54 PM	61074	2325	3.53	3.41	1.59	0.20073
3/14/2002 4:58:00 PM	61080	2331	3.54	3.42	1.58	0.19743
3/14/2002 4:58:08 PM	61088	2339	3.55	3.44	1.56	0.19439
3/14/2002 4:58:16 PM	61096	2347	3.56	3.45	1.55	0.19105
3/14/2002 4:58:24 PM	61104	2355	3.58	3.46	1.54	0.18768
3/14/2002 4:58:28 PM	61108	2359	3.55	3.43	1.57	0.19494
3/14/2002 4:58:29 PM	61109	2360	3.60	3.48	1.52	0.18086
3/14/2002 4:58:30 PM	61110	2361	3.59	3.47	1.53	0.18485
3/14/2002 4:58:43 PM	61123	2374	3.60	3.48	1.52	0.18172
3/14/2002 4:58:52 PM	61132	2383	3.61	3.49	1.51	0.17827
3/14/2002 4:59:01 PM	61141	2392	3.62	3.50	1.50	0.17480
3/14/2002 4:59:11 PM	61151	2402	3.63	3.52	1.48	0.17130
3/14/2002 4:59:26 PM	61166	2417	3.64	3.53	1.47	0.16807
3/14/2002 4:59:33 PM	61173	2424	3.65	3.54	1.46	0.16511
3/14/2002 4:59:46 PM	61186	2437	3.67	3.55	1.45	0.16153
3/14/2002 4:59:50 PM	61190	2441	3.68	3.56	1.44	0.15732
3/14/2002 5:00:01 PM	61201	2452	3.67	3.55	1.45	0.16153
3/14/2002 5:00:03 PM	61203	2454	3.68	3.56	1.44	0.15823
3/14/2002 5:00:11 PM	61211	2462	3.69	3.57	1.43	0.15459
3/14/2002 5:00:28 PM	61228	2479	3.70	3.59	1.41	0.15000
3/14/2002 5:00:42 PM	61242	2493	3.71	3.60	1.40	0.14661
3/14/2002 5:00:57 PM	61257	2508	3.72	3.61	1.39	0.14350
3/14/2002 5:01:12 PM	61272	2523	3.74	3.62	1.38	0.14005
3/14/2002 5:01:23 PM	61283	2534	3.75	3.63	1.37	0.13626

Table B-6. Slug test on CD-3 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 5:01:42 PM	61302	2553	3.76	3.64	1.36	0.13308
3/14/2002 5:01:58 PM	61318	2569	3.77	3.65	1.35	0.12922
3/14/2002 5:02:11 PM	61331	2582	3.78	3.66	1.34	0.12631

Table B-6. Slug test on CD-3

(Continued from previous page)

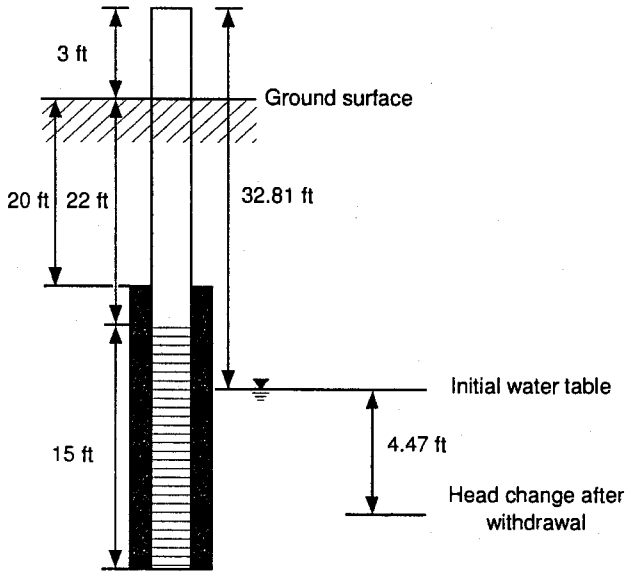
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	32.81	ft
Initial Head Change:	4.47	ft
Total well length:	40	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	3.84	ft
Drawdown at time = t (y_t):	1.74	ft
Elapsed Time between y_0 and y_t (t):	2050	sec
Initial water column in well (L_w):	7.19	ft
$\ln(R_e/r_w)$ =	2.01	
K =	1.10E-06	ft/sec
	3.35E-05	
	34.71	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-7. Slug test on CD-4

Offset in logger reading (feet):	0.01	Date:	3/15/2002
Initial depth to water table (feet):	34.1		
Depth of probe below water table (feet):	7.86		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 9:46:34 AM	35194	0	0.96	0.94	6.92	0.83983
3/15/2002 9:46:35 AM	35195	1	1.19	1.18	6.68	0.82508
3/15/2002 9:46:36 AM	35196	2	1.56	1.55	6.31	0.80014
3/15/2002 9:46:37 AM	35197	3	1.90	1.89	5.97	0.77616
3/15/2002 9:46:38 AM	35198	4	2.21	2.20	5.66	0.75294
3/15/2002 9:46:39 AM	35199	5	2.52	2.50	5.36	0.72897
3/15/2002 9:46:40 AM	35200	6	2.77	2.75	5.11	0.70805
3/15/2002 9:46:41 AM	35201	7	2.95	2.94	4.92	0.69193
3/15/2002 9:46:42 AM	35202	8	3.07	3.06	4.80	0.68121
3/15/2002 9:46:43 AM	35203	9	3.16	3.15	4.71	0.67317
3/15/2002 9:46:44 AM	35204	10	3.25	3.23	4.63	0.66536
3/15/2002 9:46:45 AM	35205	11	3.34	3.32	4.54	0.65683
3/15/2002 9:46:46 AM	35206	12	3.42	3.40	4.46	0.64891
3/15/2002 9:46:47 AM	35207	13	3.50	3.48	4.38	0.64104
3/15/2002 9:46:48 AM	35208	14	3.57	3.56	4.30	0.63343
3/15/2002 9:46:49 AM	35209	15	3.66	3.64	4.22	0.62507
3/15/2002 9:46:50 AM	35210	16	3.73	3.72	4.14	0.61717
3/15/2002 9:46:51 AM	35211	17	3.81	3.79	4.07	0.60944
3/15/2002 9:46:52 AM	35212	18	3.87	3.86	4.00	0.60213
3/15/2002 9:46:53 AM	35213	19	3.93	3.92	3.94	0.59567
3/15/2002 9:46:54 AM	35214	20	3.98	3.97	3.89	0.59024
3/15/2002 9:46:55 AM	35215	21	4.02	4.00	3.86	0.58620
3/15/2002 9:46:56 AM	35216	22	4.05	4.03	3.83	0.58304
3/15/2002 9:46:57 AM	35217	23	4.07	4.05	3.81	0.58065
3/15/2002 9:46:58 AM	35218	24	4.08	4.07	3.79	0.57871
3/15/2002 9:46:59 AM	35219	25	4.10	4.09	3.77	0.57687
3/15/2002 9:47:00 AM	35220	26	4.11	4.10	3.76	0.57549
3/15/2002 9:47:01 AM	35221	27	4.13	4.11	3.75	0.57387
3/15/2002 9:47:02 AM	35222	28	4.14	4.13	3.73	0.57224
3/15/2002 9:47:03 AM	35223	29	4.16	4.14	3.72	0.57026
3/15/2002 9:47:04 AM	35224	30	4.17	4.16	3.70	0.56839
3/15/2002 9:47:05 AM	35225	31	4.19	4.17	3.69	0.56674
3/15/2002 9:47:06 AM	35226	32	4.20	4.19	3.67	0.56474
3/15/2002 9:47:07 AM	35227	33	4.22	4.20	3.66	0.56308
3/15/2002 9:47:08 AM	35228	34	4.24	4.22	3.64	0.56081
3/15/2002 9:47:09 AM	35229	35	4.26	4.24	3.62	0.55854
3/15/2002 9:47:10 AM	35230	36	4.27	4.26	3.60	0.55625
3/15/2002 9:47:11 AM	35231	37	4.29	4.28	3.58	0.55408
3/15/2002 9:47:12 AM	35232	38	4.31	4.30	3.56	0.55177
3/15/2002 9:47:13 AM	35233	39	4.33	4.32	3.54	0.54920
3/15/2002 9:47:14 AM	35234	40	4.35	4.34	3.52	0.54711
3/15/2002 9:47:15 AM	35235	41	4.37	4.36	3.50	0.54451
3/15/2002 9:47:16 AM	35236	42	4.39	4.38	3.48	0.54153
3/15/2002 9:47:17 AM	35237	43	4.42	4.40	3.46	0.53865
3/15/2002 9:47:18 AM	35238	44	4.44	4.42	3.44	0.53600
3/15/2002 9:47:19 AM	35239	45	4.46	4.45	3.41	0.53296
3/15/2002 9:47:20 AM	35240	46	4.49	4.48	3.38	0.52938
3/15/2002 9:47:21 AM	35241	47	4.52	4.50	3.36	0.52603

Table B-7. Slug test on CD-4 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 9:47:22 AM	35242	48	4.54	4.52	3.34	0.52330
3/15/2002 9:47:23 AM	35243	49	4.56	4.55	3.31	0.52017
3/15/2002 9:47:24 AM	35244	50	4.58	4.57	3.29	0.51714
3/15/2002 9:47:25 AM	35245	51	4.61	4.59	3.27	0.51396
3/15/2002 9:47:26 AM	35246	52	4.64	4.63	3.23	0.50955
3/15/2002 9:47:27 AM	35247	53	4.67	4.65	3.21	0.50604
3/15/2002 9:47:28 AM	35248	54	4.69	4.68	3.18	0.50292
3/15/2002 9:47:29 AM	35249	55	4.71	4.70	3.16	0.49991
3/15/2002 9:47:30 AM	35250	56	4.73	4.71	3.15	0.49770
3/15/2002 9:47:31 AM	35251	57	4.75	4.73	3.13	0.49507
3/15/2002 9:47:32 AM	35252	58	4.76	4.75	3.11	0.49312
3/15/2002 9:47:33 AM	35253	59	4.78	4.77	3.09	0.49018
3/15/2002 9:47:34 AM	35254	60	4.80	4.78	3.08	0.48807
3/15/2002 9:47:35 AM	35255	61	4.82	4.80	3.06	0.48552
3/15/2002 9:47:36 AM	35256	62	4.83	4.82	3.04	0.48310
3/15/2002 9:47:37 AM	35257	63	4.85	4.83	3.03	0.48081
3/15/2002 9:47:38 AM	35258	64	4.87	4.85	3.01	0.47836
3/15/2002 9:47:39 AM	35259	65	4.88	4.87	2.99	0.47605
3/15/2002 9:47:40 AM	35260	66	4.90	4.88	2.98	0.47357
3/15/2002 9:47:41 AM	35261	67	4.91	4.90	2.96	0.47123
3/15/2002 9:47:42 AM	35262	68	4.93	4.91	2.95	0.46947
3/15/2002 9:47:43 AM	35263	69	4.94	4.93	2.93	0.46696
3/15/2002 9:47:44 AM	35264	70	4.96	4.94	2.92	0.46488
3/15/2002 9:47:45 AM	35265	71	4.97	4.96	2.90	0.46249
3/15/2002 9:47:46 AM	35266	72	4.99	4.98	2.88	0.45994
3/15/2002 9:47:47 AM	35267	73	5.00	4.99	2.87	0.45782
3/15/2002 9:47:48 AM	35268	74	5.02	5.01	2.85	0.45539
3/15/2002 9:47:49 AM	35269	75	5.04	5.02	2.84	0.45280
3/15/2002 9:47:50 AM	35270	76	5.05	5.04	2.82	0.45096
3/15/2002 9:47:51 AM	35271	77	5.07	5.05	2.81	0.44849
3/15/2002 9:47:52 AM	35272	78	5.08	5.06	2.80	0.44663
3/15/2002 9:47:53 AM	35273	79	5.09	5.08	2.78	0.44445
3/15/2002 9:47:54 AM	35274	80	5.11	5.09	2.77	0.44226
3/15/2002 9:47:55 AM	35275	81	5.12	5.11	2.75	0.44006
3/15/2002 9:47:56 AM	35276	82	5.13	5.12	2.74	0.43785
3/15/2002 9:47:57 AM	35277	83	5.15	5.13	2.73	0.43546
3/15/2002 9:47:58 AM	35278	84	5.16	5.15	2.71	0.43323
3/15/2002 9:47:59 AM	35279	85	5.18	5.16	2.70	0.43066
3/15/2002 9:48:00 AM	35280	86	5.19	5.18	2.68	0.42872
3/15/2002 9:48:01 AM	35281	87	5.21	5.19	2.67	0.42612
3/15/2002 9:48:02 AM	35282	88	5.22	5.21	2.65	0.42334
3/15/2002 9:48:03 AM	35283	89	5.24	5.23	2.63	0.42071
3/15/2002 9:48:04 AM	35284	90	5.26	5.24	2.62	0.41790
3/15/2002 9:48:05 AM	35285	91	5.27	5.26	2.60	0.41524
3/15/2002 9:48:06 AM	35286	92	5.29	5.27	2.59	0.41290
3/15/2002 9:48:07 AM	35287	93	5.30	5.29	2.57	0.41037
3/15/2002 9:48:08 AM	35288	94	5.32	5.30	2.56	0.40766
3/15/2002 9:48:09 AM	35289	95	5.33	5.32	2.54	0.40562
3/15/2002 9:48:10 AM	35290	96	5.34	5.33	2.53	0.40357
3/15/2002 9:48:11 AM	35291	97	5.35	5.34	2.52	0.40168
3/15/2002 9:48:12 AM	35292	98	5.36	5.35	2.51	0.39960
3/15/2002 9:48:14 AM	35294	100	5.39	5.37	2.49	0.39596

Table B-7. Slug test on CD-4 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 9:48:16 AM	35296	102	5.40	5.39	2.47	0.39263
3/15/2002 9:48:18 AM	35298	104	5.42	5.41	2.45	0.38927
3/15/2002 9:48:19 AM	35299	105	5.44	5.42	2.44	0.38714
3/15/2002 9:48:21 AM	35301	107	5.45	5.44	2.42	0.38374
3/15/2002 9:48:22 AM	35302	108	5.47	5.45	2.41	0.38176
3/15/2002 9:48:24 AM	35304	110	5.48	5.47	2.39	0.37833
3/15/2002 9:48:26 AM	35306	112	5.51	5.49	2.37	0.37449
3/15/2002 9:48:28 AM	35308	114	5.52	5.51	2.35	0.37099
3/15/2002 9:48:30 AM	35310	116	5.54	5.53	2.33	0.36784
3/15/2002 9:48:32 AM	35312	118	5.55	5.54	2.32	0.36560
3/15/2002 9:48:34 AM	35314	120	5.56	5.55	2.31	0.36354
3/15/2002 9:48:36 AM	35316	122	5.58	5.57	2.29	0.36033
3/15/2002 9:48:38 AM	35318	124	5.59	5.58	2.28	0.35805
3/15/2002 9:48:40 AM	35320	126	5.61	5.59	2.27	0.35537
3/15/2002 9:48:42 AM	35322	128	5.62	5.61	2.25	0.35230
3/15/2002 9:48:44 AM	35324	130	5.64	5.63	2.23	0.34901
3/15/2002 9:48:46 AM	35326	132	5.66	5.64	2.22	0.34588
3/15/2002 9:48:47 AM	35327	133	5.67	5.65	2.21	0.34392
3/15/2002 9:48:49 AM	35329	135	5.68	5.67	2.19	0.34036
3/15/2002 9:48:51 AM	35331	137	5.70	5.69	2.17	0.33658
3/15/2002 9:48:53 AM	35333	139	5.72	5.71	2.15	0.33236
3/15/2002 9:48:54 AM	35334	140	5.74	5.73	2.13	0.32932
3/15/2002 9:48:56 AM	35336	142	5.75	5.74	2.12	0.32646
3/15/2002 9:48:57 AM	35337	143	5.76	5.75	2.11	0.32420
3/15/2002 9:48:59 AM	35339	145	5.78	5.77	2.09	0.32027
3/15/2002 9:49:01 AM	35341	147	5.80	5.79	2.07	0.31631
3/15/2002 9:49:02 AM	35342	148	5.81	5.80	2.06	0.31420
3/15/2002 9:49:04 AM	35344	150	5.83	5.82	2.04	0.31040
3/15/2002 9:49:06 AM	35346	152	5.85	5.83	2.03	0.30677
3/15/2002 9:49:08 AM	35348	154	5.87	5.85	2.01	0.30268
3/15/2002 9:49:10 AM	35350	156	5.88	5.87	1.99	0.29920
3/15/2002 9:49:11 AM	35351	157	5.89	5.88	1.98	0.29702
3/15/2002 9:49:13 AM	35353	159	5.91	5.90	1.96	0.29283
3/15/2002 9:49:15 AM	35355	161	5.93	5.91	1.95	0.28928
3/15/2002 9:49:17 AM	35357	163	5.94	5.93	1.93	0.28614
3/15/2002 9:49:19 AM	35359	165	5.96	5.95	1.91	0.28185
3/15/2002 9:49:21 AM	35361	167	5.97	5.96	1.90	0.27866
3/15/2002 9:49:23 AM	35363	169	5.99	5.98	1.88	0.27430
3/15/2002 9:49:25 AM	35365	171	6.01	5.99	1.87	0.27105
3/15/2002 9:49:27 AM	35367	173	6.02	6.01	1.85	0.26708
3/15/2002 9:49:29 AM	35369	175	6.04	6.02	1.84	0.26378
3/15/2002 9:49:31 AM	35371	177	6.05	6.04	1.82	0.26045
3/15/2002 9:49:33 AM	35373	179	6.07	6.05	1.81	0.25662
3/15/2002 9:49:35 AM	35375	181	6.08	6.07	1.79	0.25373
3/15/2002 9:49:37 AM	35377	183	6.10	6.08	1.78	0.24959
3/15/2002 9:49:39 AM	35379	185	6.11	6.10	1.76	0.24615
3/15/2002 9:49:41 AM	35381	187	6.13	6.11	1.75	0.24219
3/15/2002 9:49:43 AM	35383	189	6.14	6.13	1.73	0.23870
3/15/2002 9:49:45 AM	35385	191	6.16	6.14	1.72	0.23442
3/15/2002 9:49:47 AM	35387	193	6.18	6.16	1.70	0.22958
3/15/2002 9:49:49 AM	35389	195	6.19	6.17	1.69	0.22675
3/15/2002 9:49:51 AM	35391	197	6.20	6.19	1.67	0.22365

Table B-7. Slug test on CD-4 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 9:49:53 AM	35393	199	6.21	6.20	1.66	0.22000
3/15/2002 9:49:55 AM	35395	201	6.23	6.21	1.65	0.21685
3/15/2002 9:49:57 AM	35397	203	6.24	6.22	1.64	0.21368
3/15/2002 9:49:59 AM	35399	205	6.25	6.24	1.62	0.21048
3/15/2002 9:50:02 AM	35402	208	6.27	6.25	1.61	0.20618
3/15/2002 9:50:05 AM	35405	211	6.28	6.27	1.59	0.20238
3/15/2002 9:50:08 AM	35408	214	6.30	6.28	1.58	0.19772
3/15/2002 9:50:11 AM	35411	217	6.31	6.30	1.56	0.19385
3/15/2002 9:50:14 AM	35414	220	6.33	6.31	1.55	0.18938
3/15/2002 9:50:16 AM	35416	222	6.34	6.33	1.53	0.18600
3/15/2002 9:50:18 AM	35418	224	6.35	6.34	1.52	0.18259
3/15/2002 9:50:20 AM	35420	226	6.36	6.35	1.51	0.17915
3/15/2002 9:50:22 AM	35422	228	6.37	6.36	1.50	0.17598
3/15/2002 9:50:24 AM	35424	230	6.38	6.37	1.49	0.17307
3/15/2002 9:50:27 AM	35427	233	6.40	6.39	1.47	0.16838
3/15/2002 9:50:30 AM	35430	236	6.41	6.40	1.46	0.16423
3/15/2002 9:50:32 AM	35432	238	6.42	6.41	1.45	0.16125
3/15/2002 9:50:35 AM	35435	241	6.44	6.42	1.44	0.15764
3/15/2002 9:50:38 AM	35438	244	6.45	6.43	1.43	0.15430
3/15/2002 9:50:41 AM	35441	247	6.46	6.45	1.41	0.14971
3/15/2002 9:50:44 AM	35444	250	6.48	6.46	1.40	0.14538
3/15/2002 9:50:47 AM	35447	253	6.49	6.47	1.39	0.14195
3/15/2002 9:50:50 AM	35450	256	6.50	6.49	1.37	0.13723
3/15/2002 9:50:53 AM	35453	259	6.51	6.50	1.36	0.13373
3/15/2002 9:50:56 AM	35456	262	6.53	6.51	1.35	0.12924
3/15/2002 9:50:59 AM	35459	265	6.54	6.53	1.33	0.12437
3/15/2002 9:51:02 AM	35462	268	6.56	6.54	1.32	0.11978
3/15/2002 9:51:05 AM	35465	271	6.57	6.56	1.30	0.11514
3/15/2002 9:51:08 AM	35468	274	6.58	6.57	1.29	0.11046
3/15/2002 9:51:11 AM	35471	277	6.60	6.58	1.28	0.10639
3/15/2002 9:51:14 AM	35474	280	6.61	6.59	1.27	0.10264
3/15/2002 9:51:17 AM	35477	283	6.62	6.61	1.25	0.09747
3/15/2002 9:51:20 AM	35480	286	6.63	6.62	1.24	0.09363
3/15/2002 9:51:23 AM	35483	289	6.65	6.63	1.23	0.08941
3/15/2002 9:51:26 AM	35486	292	6.66	6.64	1.22	0.08515
3/15/2002 9:51:28 AM	35488	294	6.67	6.66	1.20	0.08084
3/15/2002 9:51:31 AM	35491	297	6.68	6.67	1.19	0.07686
3/15/2002 9:51:34 AM	35494	300	6.69	6.68	1.18	0.07247
3/15/2002 9:51:37 AM	35497	303	6.70	6.69	1.17	0.06804
3/15/2002 9:51:39 AM	35499	305	6.72	6.70	1.16	0.06356
3/15/2002 9:51:42 AM	35502	308	6.73	6.71	1.15	0.05941
3/15/2002 9:51:44 AM	35504	310	6.74	6.73	1.13	0.05484
3/15/2002 9:51:47 AM	35507	313	6.76	6.74	1.12	0.04829
3/15/2002 9:51:50 AM	35510	316	6.77	6.75	1.11	0.04360
3/15/2002 9:51:53 AM	35513	319	6.78	6.77	1.09	0.03926
3/15/2002 9:51:56 AM	35516	322	6.80	6.78	1.08	0.03246
3/15/2002 9:51:59 AM	35519	325	6.81	6.80	1.06	0.02596
3/15/2002 9:52:02 AM	35522	328	6.82	6.81	1.05	0.02102
3/15/2002 9:52:05 AM	35525	331	6.84	6.82	1.04	0.01519
3/15/2002 9:52:08 AM	35528	334	6.85	6.84	1.02	0.01013
3/15/2002 9:52:12 AM	35532	338	6.86	6.85	1.01	0.00415
3/15/2002 9:52:15 AM	35535	341	6.88	6.86	1.00	-0.00192

Table B-7. Slug test on CD-4 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 9:52:18 AM	35538	344	6.89	6.88	0.98	-0.00718
3/15/2002 9:52:21 AM	35541	347	6.90	6.89	0.97	-0.01251
3/15/2002 9:52:25 AM	35545	351	6.92	6.90	0.96	-0.01882
3/15/2002 9:52:28 AM	35548	354	6.93	6.91	0.95	-0.02429
3/15/2002 9:52:31 AM	35551	357	6.94	6.93	0.93	-0.02937
3/15/2002 9:52:35 AM	35555	361	6.95	6.94	0.92	-0.03499
3/15/2002 9:52:38 AM	35558	364	6.96	6.95	0.91	-0.03972
3/15/2002 9:52:41 AM	35561	367	6.97	6.96	0.90	-0.04499
3/15/2002 9:52:45 AM	35565	371	6.99	6.97	0.89	-0.05178
3/15/2002 9:52:48 AM	35568	374	7.00	6.98	0.88	-0.05670
3/15/2002 9:52:52 AM	35572	378	7.01	6.99	0.87	-0.06268
3/15/2002 9:52:56 AM	35576	382	7.02	7.01	0.85	-0.06824
3/15/2002 9:53:00 AM	35580	386	7.03	7.02	0.84	-0.07438
3/15/2002 9:53:03 AM	35583	389	7.04	7.03	0.83	-0.07956
3/15/2002 9:53:07 AM	35587	393	7.05	7.04	0.82	-0.08534
3/15/2002 9:53:11 AM	35591	397	7.06	7.05	0.81	-0.09066
3/15/2002 9:53:15 AM	35595	401	7.07	7.06	0.80	-0.09713
3/15/2002 9:53:19 AM	35599	405	7.09	7.07	0.79	-0.10314
3/15/2002 9:53:24 AM	35604	410	7.10	7.09	0.77	-0.11092
3/15/2002 9:53:29 AM	35609	415	7.11	7.10	0.76	-0.11770
3/15/2002 9:53:32 AM	35612	418	7.12	7.11	0.75	-0.12344
3/15/2002 9:53:37 AM	35617	423	7.13	7.12	0.74	-0.12983
3/15/2002 9:53:40 AM	35620	426	7.14	7.13	0.73	-0.13573
3/15/2002 9:53:44 AM	35624	430	7.15	7.14	0.72	-0.14231
3/15/2002 9:53:48 AM	35628	434	7.16	7.15	0.71	-0.14837
3/15/2002 9:53:54 AM	35634	440	7.18	7.16	0.70	-0.15577
3/15/2002 9:53:59 AM	35639	445	7.19	7.17	0.69	-0.16266
3/15/2002 9:54:05 AM	35645	451	7.20	7.18	0.68	-0.17031
3/15/2002 9:54:11 AM	35651	457	7.21	7.20	0.66	-0.17940
3/15/2002 9:54:15 AM	35655	461	7.22	7.21	0.65	-0.18602
3/15/2002 9:54:19 AM	35659	465	7.23	7.22	0.64	-0.19409
3/15/2002 9:54:25 AM	35665	471	7.25	7.23	0.63	-0.20163
3/15/2002 9:54:31 AM	35671	477	7.26	7.24	0.62	-0.21000
3/15/2002 9:54:38 AM	35678	484	7.27	7.26	0.60	-0.21853
3/15/2002 9:54:44 AM	35684	490	7.28	7.27	0.59	-0.22724
3/15/2002 9:54:49 AM	35689	495	7.29	7.28	0.58	-0.23538
3/15/2002 9:54:54 AM	35694	500	7.30	7.29	0.57	-0.24443
3/15/2002 9:55:00 AM	35700	506	7.32	7.30	0.56	-0.25368
3/15/2002 9:55:06 AM	35706	512	7.33	7.31	0.55	-0.26313
3/15/2002 9:55:13 AM	35713	519	7.34	7.33	0.53	-0.27197
3/15/2002 9:55:18 AM	35718	524	7.35	7.34	0.52	-0.28183
3/15/2002 9:55:24 AM	35724	530	7.36	7.35	0.51	-0.29192
3/15/2002 9:55:32 AM	35732	538	7.38	7.36	0.50	-0.30399
3/15/2002 9:55:40 AM	35740	546	7.39	7.38	0.48	-0.31462
3/15/2002 9:55:46 AM	35746	552	7.40	7.39	0.47	-0.32551
3/15/2002 9:55:53 AM	35753	559	7.41	7.40	0.46	-0.33573
3/15/2002 9:56:01 AM	35761	567	7.42	7.41	0.45	-0.34717
3/15/2002 9:56:09 AM	35769	575	7.44	7.42	0.44	-0.35892
3/15/2002 9:56:17 AM	35777	583	7.45	7.43	0.43	-0.37100
3/15/2002 9:56:24 AM	35784	590	7.46	7.45	0.41	-0.38237
3/15/2002 9:56:32 AM	35792	598	7.47	7.46	0.40	-0.39297
3/15/2002 9:56:39 AM	35799	605	7.48	7.47	0.39	-0.40605

Table B-7. Slug test on CD-4 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 9:56:47 AM	35807	613	7.49	7.48	0.38	-0.41839
3/15/2002 9:56:57 AM	35817	623	7.50	7.49	0.37	-0.43227
3/15/2002 9:57:03 AM	35823	629	7.51	7.50	0.36	-0.44418
3/15/2002 9:57:13 AM	35833	639	7.53	7.51	0.35	-0.45767
3/15/2002 9:57:22 AM	35842	648	7.54	7.52	0.34	-0.47289
3/15/2002 9:57:34 AM	35854	660	7.55	7.54	0.32	-0.48865
3/15/2002 9:57:43 AM	35863	669	7.56	7.55	0.31	-0.50501
3/15/2002 9:57:44 AM	35864	670	7.56	7.55	0.31	-0.50780

Table B-7. Slug test on CD-4 (*Continued from previous page*)

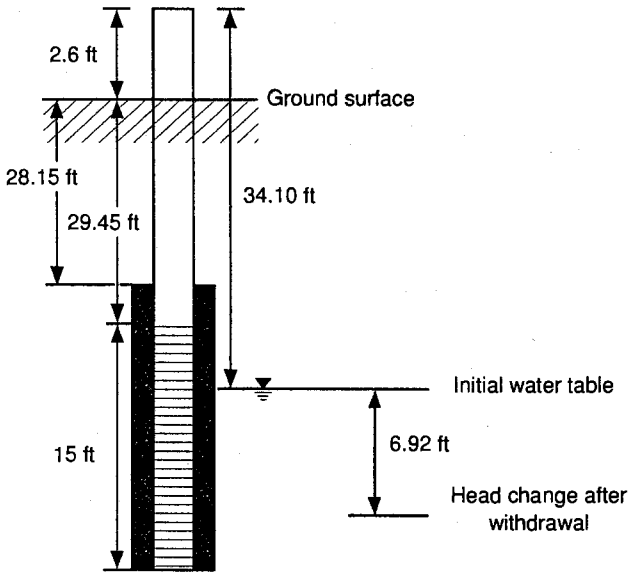
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	34.10	ft
Initial Head Change:	6.92	ft
Total well length:	47.6	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	1.69	ft
Drawdown at time = t (y_t):	0.31	ft
Elapsed Time between y_0 and y_t (t):	475	sec
Initial water column in well (L_w):	13.50	ft
$\ln(R_e/r_w)$ =	2.31	
K =	1.17E-05	ft/sec
	3.55E-04	
	367.75	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-8. Slug test on CD-5

Offset in logger reading (feet):	0.02	Date:	3/14/2002
Initial depth to water table (feet):	37.7		
Depth of probe below water table (feet):	7.78		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:03:11 PM	64991	0	2.49	2.47	5.31	0.72505
3/14/2002 6:03:12 PM	64992	1	2.59	2.56	5.22	0.71729
3/14/2002 6:03:13 PM	64993	2	2.90	2.88	4.90	0.69059
3/14/2002 6:03:14 PM	64994	3	3.09	3.07	4.71	0.67315
3/14/2002 6:03:15 PM	64995	4	3.17	3.15	4.63	0.66590
3/14/2002 6:03:16 PM	64996	5	3.20	3.17	4.61	0.66327
3/14/2002 6:03:18 PM	64998	7	3.21	3.19	4.59	0.66195
3/14/2002 6:03:21 PM	65001	10	3.23	3.20	4.58	0.66062
3/14/2002 6:03:22 PM	65002	11	3.24	3.21	4.57	0.65948
3/14/2002 6:03:23 PM	65003	12	3.25	3.23	4.55	0.65815
3/14/2002 6:03:24 PM	65004	13	3.27	3.24	4.54	0.65681
3/14/2002 6:03:25 PM	65005	14	3.28	3.26	4.52	0.65499
3/14/2002 6:03:26 PM	65006	15	3.30	3.27	4.51	0.65383
3/14/2002 6:03:27 PM	65007	16	3.32	3.29	4.49	0.65200
3/14/2002 6:03:29 PM	65009	18	3.33	3.31	4.47	0.65045
3/14/2002 6:03:30 PM	65010	19	3.34	3.32	4.46	0.64928
3/14/2002 6:03:31 PM	65011	20	3.36	3.33	4.45	0.64811
3/14/2002 6:03:32 PM	65012	21	3.37	3.35	4.43	0.64674
3/14/2002 6:03:33 PM	65013	22	3.38	3.36	4.42	0.64537
3/14/2002 6:03:34 PM	65014	23	3.40	3.38	4.40	0.64349
3/14/2002 6:03:35 PM	65015	24	3.42	3.39	4.39	0.64211
3/14/2002 6:03:36 PM	65016	25	3.43	3.41	4.37	0.64092
3/14/2002 6:03:38 PM	65018	27	3.45	3.43	4.35	0.63883
3/14/2002 6:03:40 PM	65020	29	3.47	3.45	4.33	0.63693
3/14/2002 6:03:42 PM	65022	31	3.49	3.46	4.32	0.63512
3/14/2002 6:03:44 PM	65024	33	3.51	3.48	4.30	0.63321
3/14/2002 6:03:46 PM	65026	35	3.52	3.50	4.28	0.63149
3/14/2002 6:03:48 PM	65028	37	3.54	3.52	4.26	0.62986
3/14/2002 6:03:50 PM	65030	39	3.55	3.53	4.25	0.62843
3/14/2002 6:03:52 PM	65032	41	3.57	3.55	4.23	0.62669
3/14/2002 6:03:54 PM	65034	43	3.59	3.56	4.22	0.62505
3/14/2002 6:03:55 PM	65035	44	3.60	3.57	4.21	0.62402
3/14/2002 6:03:57 PM	65037	46	3.61	3.59	4.19	0.62236
3/14/2002 6:03:59 PM	65039	48	3.63	3.61	4.17	0.62039
3/14/2002 6:04:01 PM	65041	50	3.64	3.62	4.16	0.61893
3/14/2002 6:04:03 PM	65043	52	3.66	3.64	4.14	0.61726
3/14/2002 6:04:05 PM	65045	54	3.68	3.65	4.13	0.61547
3/14/2002 6:04:07 PM	65047	56	3.69	3.67	4.11	0.61378
3/14/2002 6:04:08 PM	65048	57	3.71	3.68	4.10	0.61251
3/14/2002 6:04:10 PM	65050	59	3.72	3.70	4.08	0.61102
3/14/2002 6:04:12 PM	65052	61	3.74	3.71	4.07	0.60932
3/14/2002 6:04:14 PM	65054	63	3.75	3.73	4.05	0.60750
3/14/2002 6:04:16 PM	65056	65	3.77	3.74	4.04	0.60600
3/14/2002 6:04:18 PM	65058	67	3.78	3.76	4.02	0.60427
3/14/2002 6:04:20 PM	65060	69	3.80	3.77	4.01	0.60265
3/14/2002 6:04:22 PM	65062	71	3.81	3.79	3.99	0.60091
3/14/2002 6:04:24 PM	65064	73	3.83	3.80	3.98	0.59938
3/14/2002 6:04:25 PM	65065	74	3.84	3.81	3.97	0.59829

Table B-8. Slug test on CD-5 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:04:27 PM	65067	76	3.85	3.83	3.95	0.59653
3/14/2002 6:04:29 PM	65069	78	3.87	3.85	3.93	0.59466
3/14/2002 6:04:31 PM	65071	80	3.88	3.86	3.92	0.59311
3/14/2002 6:04:33 PM	65073	82	3.90	3.88	3.90	0.59133
3/14/2002 6:04:35 PM	65075	84	3.91	3.89	3.89	0.58977
3/14/2002 6:04:37 PM	65077	86	3.93	3.91	3.87	0.58787
3/14/2002 6:04:39 PM	65079	88	3.95	3.92	3.86	0.58607
3/14/2002 6:04:41 PM	65081	90	3.96	3.94	3.84	0.58415
3/14/2002 6:04:43 PM	65083	92	3.98	3.96	3.82	0.58234
3/14/2002 6:04:44 PM	65084	93	3.99	3.97	3.81	0.58120
3/14/2002 6:04:45 PM	65085	94	4.00	3.98	3.80	0.57995
3/14/2002 6:04:46 PM	65086	95	4.01	3.99	3.79	0.57857
3/14/2002 6:04:47 PM	65087	96	4.03	4.00	3.78	0.57720
3/14/2002 6:04:49 PM	65089	98	4.05	4.02	3.76	0.57478
3/14/2002 6:04:50 PM	65090	99	4.06	4.04	3.74	0.57339
3/14/2002 6:04:51 PM	65091	100	4.07	4.05	3.73	0.57199
3/14/2002 6:04:53 PM	65093	102	4.09	4.07	3.71	0.56978
3/14/2002 6:04:54 PM	65094	103	4.10	4.08	3.70	0.56849
3/14/2002 6:04:55 PM	65095	104	4.11	4.09	3.69	0.56708
3/14/2002 6:04:56 PM	65096	105	4.12	4.10	3.68	0.56566
3/14/2002 6:04:58 PM	65098	107	4.14	4.12	3.66	0.56401
3/14/2002 6:05:00 PM	65100	109	4.16	4.13	3.65	0.56175
3/14/2002 6:05:02 PM	65102	111	4.17	4.15	3.63	0.56008
3/14/2002 6:05:04 PM	65104	113	4.19	4.16	3.62	0.55816
3/14/2002 6:05:06 PM	65106	115	4.20	4.18	3.60	0.55611
3/14/2002 6:05:08 PM	65108	117	4.22	4.20	3.58	0.55418
3/14/2002 6:05:10 PM	65110	119	4.24	4.21	3.57	0.55211
3/14/2002 6:05:12 PM	65112	121	4.25	4.23	3.55	0.55016
3/14/2002 6:05:14 PM	65114	123	4.27	4.25	3.53	0.54807
3/14/2002 6:05:16 PM	65116	125	4.29	4.26	3.52	0.54610
3/14/2002 6:05:18 PM	65118	127	4.30	4.28	3.50	0.54400
3/14/2002 6:05:20 PM	65120	129	4.32	4.29	3.49	0.54226
3/14/2002 6:05:22 PM	65122	131	4.33	4.31	3.47	0.54026
3/14/2002 6:05:24 PM	65124	133	4.35	4.33	3.45	0.53812
3/14/2002 6:05:26 PM	65126	135	4.36	4.34	3.44	0.53636
3/14/2002 6:05:28 PM	65128	137	4.38	4.36	3.42	0.53395
3/14/2002 6:05:30 PM	65130	139	4.40	4.37	3.41	0.53217
3/14/2002 6:05:32 PM	65132	141	4.41	4.39	3.39	0.53013
3/14/2002 6:05:34 PM	65134	143	4.43	4.41	3.37	0.52820
3/14/2002 6:05:36 PM	65136	145	4.44	4.42	3.36	0.52614
3/14/2002 6:05:38 PM	65138	147	4.46	4.44	3.34	0.52432
3/14/2002 6:05:40 PM	65140	149	4.47	4.45	3.33	0.52250
3/14/2002 6:05:42 PM	65142	151	4.49	4.47	3.31	0.52028
3/14/2002 6:05:44 PM	65144	153	4.51	4.48	3.30	0.51818
3/14/2002 6:05:46 PM	65146	155	4.52	4.50	3.28	0.51633
3/14/2002 6:05:48 PM	65148	157	4.53	4.51	3.27	0.51434
3/14/2002 6:05:50 PM	65150	159	4.55	4.53	3.25	0.51194
3/14/2002 6:05:52 PM	65152	161	4.57	4.54	3.24	0.50993
3/14/2002 6:05:54 PM	65154	163	4.58	4.56	3.22	0.50778
3/14/2002 6:05:56 PM	65156	165	4.60	4.57	3.21	0.50589
3/14/2002 6:05:58 PM	65158	167	4.61	4.59	3.19	0.50358
3/14/2002 6:06:00 PM	65160	169	4.63	4.61	3.17	0.50167

Table B-8. Slug test on CD-5 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:06:02 PM	65162	171	4.64	4.62	3.16	0.50002
3/14/2002 6:06:04 PM	65164	173	4.66	4.63	3.15	0.49782
3/14/2002 6:06:06 PM	65166	175	4.67	4.65	3.13	0.49616
3/14/2002 6:06:08 PM	65168	177	4.68	4.66	3.12	0.49449
3/14/2002 6:06:10 PM	65170	179	4.69	4.67	3.11	0.49296
3/14/2002 6:06:13 PM	65173	182	4.71	4.68	3.10	0.49086
3/14/2002 6:06:15 PM	65175	184	4.72	4.70	3.08	0.48889
3/14/2002 6:06:17 PM	65177	186	4.73	4.71	3.07	0.48734
3/14/2002 6:06:19 PM	65179	188	4.74	4.72	3.06	0.48564
3/14/2002 6:06:21 PM	65181	190	4.76	4.73	3.05	0.48365
3/14/2002 6:06:23 PM	65183	192	4.77	4.74	3.04	0.48222
3/14/2002 6:06:26 PM	65186	195	4.78	4.76	3.02	0.47992
3/14/2002 6:06:29 PM	65189	198	4.80	4.78	3.00	0.47747
3/14/2002 6:06:32 PM	65192	201	4.82	4.79	2.99	0.47515
3/14/2002 6:06:35 PM	65195	204	4.83	4.81	2.97	0.47267
3/14/2002 6:06:37 PM	65197	206	4.85	4.82	2.96	0.47091
3/14/2002 6:06:40 PM	65200	209	4.86	4.84	2.94	0.46900
3/14/2002 6:06:42 PM	65202	211	4.87	4.85	2.93	0.46752
3/14/2002 6:06:44 PM	65204	213	4.88	4.86	2.92	0.46574
3/14/2002 6:06:46 PM	65206	215	4.89	4.87	2.91	0.46396
3/14/2002 6:06:48 PM	65208	217	4.90	4.88	2.90	0.46231
3/14/2002 6:06:50 PM	65210	219	4.92	4.89	2.89	0.46021
3/14/2002 6:06:52 PM	65212	221	4.93	4.91	2.87	0.45795
3/14/2002 6:06:54 PM	65214	223	4.95	4.92	2.86	0.45582
3/14/2002 6:06:56 PM	65216	225	4.96	4.94	2.84	0.45369
3/14/2002 6:06:58 PM	65218	227	4.97	4.95	2.83	0.45185
3/14/2002 6:06:59 PM	65219	228	4.98	4.96	2.82	0.45001
3/14/2002 6:07:01 PM	65221	230	5.00	4.97	2.81	0.44831
3/14/2002 6:07:03 PM	65223	232	5.01	4.98	2.80	0.44645
3/14/2002 6:07:05 PM	65225	234	5.02	5.00	2.78	0.44396
3/14/2002 6:07:07 PM	65227	236	5.04	5.01	2.77	0.44208
3/14/2002 6:07:09 PM	65229	238	5.05	5.03	2.75	0.43987
3/14/2002 6:07:11 PM	65231	240	5.06	5.04	2.74	0.43798
3/14/2002 6:07:14 PM	65234	243	5.08	5.05	2.73	0.43575
3/14/2002 6:07:16 PM	65236	245	5.09	5.07	2.71	0.43352
3/14/2002 6:07:19 PM	65239	248	5.11	5.08	2.70	0.43079
3/14/2002 6:07:21 PM	65241	250	5.12	5.10	2.68	0.42853
3/14/2002 6:07:23 PM	65243	252	5.13	5.11	2.67	0.42658
3/14/2002 6:07:25 PM	65245	254	5.15	5.12	2.66	0.42430
3/14/2002 6:07:27 PM	65247	256	5.16	5.14	2.64	0.42233
3/14/2002 6:07:30 PM	65250	259	5.17	5.15	2.63	0.42003
3/14/2002 6:07:32 PM	65252	261	5.18	5.16	2.62	0.41804
3/14/2002 6:07:34 PM	65254	263	5.20	5.18	2.60	0.41571
3/14/2002 6:07:36 PM	65256	265	5.21	5.19	2.59	0.41387
3/14/2002 6:07:38 PM	65258	267	5.22	5.20	2.58	0.41186
3/14/2002 6:07:40 PM	65260	269	5.23	5.21	2.57	0.40984
3/14/2002 6:07:43 PM	65263	272	5.25	5.22	2.56	0.40746
3/14/2002 6:07:45 PM	65265	274	5.26	5.24	2.54	0.40542
3/14/2002 6:07:47 PM	65267	276	5.27	5.25	2.53	0.40337
3/14/2002 6:07:49 PM	65269	278	5.28	5.26	2.52	0.40130
3/14/2002 6:07:52 PM	65272	281	5.30	5.28	2.50	0.39854
3/14/2002 6:07:54 PM	65274	283	5.31	5.29	2.49	0.39645

Table B-8. Slug test on CD-5 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:07:57 PM	65277	286	5.33	5.30	2.48	0.39400
3/14/2002 6:07:59 PM	65279	288	5.34	5.31	2.47	0.39189
3/14/2002 6:08:01 PM	65281	290	5.35	5.33	2.45	0.38995
3/14/2002 6:08:03 PM	65283	292	5.36	5.34	2.44	0.38782
3/14/2002 6:08:06 PM	65286	295	5.37	5.35	2.43	0.38533
3/14/2002 6:08:08 PM	65288	297	5.38	5.36	2.42	0.38353
3/14/2002 6:08:11 PM	65291	300	5.40	5.38	2.40	0.38065
3/14/2002 6:08:14 PM	65294	303	5.41	5.39	2.39	0.37848
3/14/2002 6:08:16 PM	65296	305	5.42	5.40	2.38	0.37629
3/14/2002 6:08:19 PM	65299	308	5.44	5.42	2.36	0.37373
3/14/2002 6:08:22 PM	65302	311	5.45	5.43	2.35	0.37115
3/14/2002 6:08:25 PM	65305	314	5.47	5.45	2.33	0.36799
3/14/2002 6:08:28 PM	65308	317	5.48	5.46	2.32	0.36594
3/14/2002 6:08:31 PM	65311	320	5.50	5.47	2.31	0.36313
3/14/2002 6:08:34 PM	65314	323	5.51	5.49	2.29	0.36049
3/14/2002 6:08:36 PM	65316	325	5.52	5.50	2.28	0.35840
3/14/2002 6:08:38 PM	65318	327	5.53	5.51	2.27	0.35649
3/14/2002 6:08:41 PM	65321	330	5.54	5.52	2.26	0.35381
3/14/2002 6:08:44 PM	65324	333	5.56	5.53	2.25	0.35149
3/14/2002 6:08:46 PM	65326	335	5.57	5.55	2.23	0.34917
3/14/2002 6:08:50 PM	65330	339	5.58	5.56	2.22	0.34605
3/14/2002 6:08:53 PM	65333	342	5.60	5.57	2.21	0.34369
3/14/2002 6:08:55 PM	65335	344	5.61	5.59	2.19	0.34132
3/14/2002 6:08:57 PM	65337	346	5.62	5.60	2.18	0.33914
3/14/2002 6:09:01 PM	65341	350	5.64	5.61	2.17	0.33574
3/14/2002 6:09:04 PM	65344	353	5.65	5.63	2.15	0.33293
3/14/2002 6:09:10 PM	65350	359	5.66	5.64	2.14	0.33050
3/14/2002 6:09:15 PM	65355	364	5.68	5.65	2.13	0.32765
3/14/2002 6:09:18 PM	65358	367	5.69	5.66	2.12	0.32540
3/14/2002 6:09:23 PM	65363	372	5.70	5.68	2.10	0.32189
3/14/2002 6:09:28 PM	65368	377	5.72	5.69	2.09	0.31940
3/14/2002 6:09:31 PM	65371	380	5.73	5.71	2.07	0.31606
3/14/2002 6:09:36 PM	65376	385	5.74	5.72	2.06	0.31354
3/14/2002 6:09:39 PM	65379	388	5.76	5.73	2.05	0.31100
3/14/2002 6:09:43 PM	65383	392	5.77	5.75	2.03	0.30844
3/14/2002 6:09:48 PM	65388	397	5.78	5.76	2.02	0.30609
3/14/2002 6:09:51 PM	65391	400	5.79	5.76	2.02	0.30458
3/14/2002 6:09:52 PM	65392	401	5.79	5.77	2.01	0.30307
3/14/2002 6:09:58 PM	65398	407	5.81	5.79	1.99	0.29938
3/14/2002 6:10:03 PM	65403	412	5.82	5.80	1.98	0.29676
3/14/2002 6:10:05 PM	65405	414	5.83	5.81	1.97	0.29412
3/14/2002 6:10:09 PM	65409	418	5.85	5.82	1.96	0.29169
3/14/2002 6:10:11 PM	65411	420	5.86	5.83	1.95	0.28946
3/14/2002 6:10:14 PM	65414	423	5.87	5.84	1.94	0.28700
3/14/2002 6:10:18 PM	65418	427	5.88	5.86	1.92	0.28362
3/14/2002 6:10:22 PM	65422	431	5.90	5.87	1.91	0.27999
3/14/2002 6:10:26 PM	65426	435	5.91	5.89	1.89	0.27679
3/14/2002 6:10:30 PM	65430	439	5.93	5.90	1.88	0.27356
3/14/2002 6:10:34 PM	65434	443	5.94	5.92	1.86	0.27008
3/14/2002 6:10:38 PM	65438	447	5.95	5.93	1.85	0.26751
3/14/2002 6:10:41 PM	65441	450	5.96	5.94	1.84	0.26468
3/14/2002 6:10:45 PM	65445	454	5.98	5.95	1.83	0.26184

Table B-8. Slug test on CD-5 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:10:48 PM	65448	457	5.99	5.97	1.81	0.25850
3/14/2002 6:10:51 PM	65451	460	6.00	5.98	1.80	0.25562
3/14/2002 6:10:55 PM	65455	464	6.01	5.99	1.79	0.25296
3/14/2002 6:10:58 PM	65458	467	6.02	6.00	1.78	0.25004
3/14/2002 6:11:02 PM	65462	471	6.04	6.01	1.77	0.24710
3/14/2002 6:11:06 PM	65466	475	6.05	6.03	1.75	0.24364
3/14/2002 6:11:10 PM	65470	479	6.06	6.04	1.74	0.24066
3/14/2002 6:11:14 PM	65474	483	6.07	6.05	1.73	0.23765
3/14/2002 6:11:18 PM	65478	487	6.09	6.06	1.72	0.23463
3/14/2002 6:11:22 PM	65482	491	6.10	6.07	1.71	0.23183
3/14/2002 6:11:26 PM	65486	495	6.11	6.09	1.69	0.22825
3/14/2002 6:11:30 PM	65490	499	6.12	6.10	1.68	0.22568
3/14/2002 6:11:34 PM	65494	503	6.14	6.11	1.67	0.22205
3/14/2002 6:11:39 PM	65499	508	6.15	6.13	1.65	0.21839
3/14/2002 6:11:43 PM	65503	512	6.16	6.14	1.64	0.21522
3/14/2002 6:11:47 PM	65507	516	6.17	6.15	1.63	0.21204
3/14/2002 6:11:52 PM	65512	521	6.18	6.16	1.62	0.20909
3/14/2002 6:11:55 PM	65515	524	6.20	6.17	1.61	0.20586
3/14/2002 6:12:00 PM	65520	529	6.21	6.19	1.59	0.20261
3/14/2002 6:12:04 PM	65524	533	6.22	6.20	1.58	0.19932
3/14/2002 6:12:09 PM	65529	538	6.23	6.21	1.57	0.19629
3/14/2002 6:12:13 PM	65533	542	6.24	6.22	1.56	0.19297
3/14/2002 6:12:19 PM	65539	548	6.26	6.23	1.55	0.18905
3/14/2002 6:12:22 PM	65542	551	6.27	6.24	1.54	0.18623
3/14/2002 6:12:26 PM	65546	555	6.28	6.26	1.52	0.18282
3/14/2002 6:12:31 PM	65551	560	6.29	6.27	1.51	0.17967
3/14/2002 6:12:36 PM	65556	565	6.30	6.28	1.50	0.17564
3/14/2002 6:12:40 PM	65560	569	6.32	6.29	1.49	0.17214
3/14/2002 6:12:46 PM	65566	575	6.33	6.31	1.47	0.16803
3/14/2002 6:12:51 PM	65571	580	6.34	6.32	1.46	0.16448
3/14/2002 6:12:54 PM	65574	583	6.35	6.33	1.45	0.16150
3/14/2002 6:12:59 PM	65579	588	6.36	6.34	1.44	0.15819
3/14/2002 6:13:03 PM	65583	592	6.38	6.35	1.43	0.15395
3/14/2002 6:13:08 PM	65588	597	6.39	6.37	1.41	0.14935
3/14/2002 6:13:13 PM	65593	602	6.40	6.38	1.40	0.14595
3/14/2002 6:13:17 PM	65597	606	6.41	6.39	1.39	0.14284
3/14/2002 6:13:23 PM	65603	612	6.43	6.40	1.38	0.13907
3/14/2002 6:13:26 PM	65606	615	6.44	6.41	1.37	0.13559
3/14/2002 6:13:31 PM	65611	620	6.45	6.43	1.35	0.13176
3/14/2002 6:13:37 PM	65617	626	6.46	6.44	1.34	0.12789
3/14/2002 6:13:41 PM	65621	630	6.47	6.45	1.33	0.12334
3/14/2002 6:13:47 PM	65627	636	6.49	6.46	1.32	0.11940
3/14/2002 6:13:52 PM	65632	641	6.50	6.48	1.30	0.11542
3/14/2002 6:13:57 PM	65637	646	6.51	6.49	1.29	0.11174
3/14/2002 6:14:03 PM	65643	652	6.52	6.50	1.28	0.10769
3/14/2002 6:14:08 PM	65648	657	6.54	6.52	1.26	0.10189
3/14/2002 6:14:15 PM	65655	664	6.55	6.53	1.25	0.09775
3/14/2002 6:14:19 PM	65659	668	6.56	6.54	1.24	0.09392
3/14/2002 6:14:24 PM	65664	673	6.57	6.55	1.23	0.08970
3/14/2002 6:14:31 PM	65671	680	6.59	6.56	1.22	0.08544
3/14/2002 6:14:36 PM	65676	685	6.60	6.57	1.21	0.08114
3/14/2002 6:14:43 PM	65683	692	6.61	6.59	1.19	0.07716

Table B-8. Slug test on CD-5 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:14:48 PM	65688	697	6.62	6.60	1.18	0.07167
3/14/2002 6:14:53 PM	65693	702	6.63	6.61	1.17	0.06760
3/14/2002 6:15:00 PM	65700	709	6.65	6.62	1.16	0.06312
3/14/2002 6:15:07 PM	65707	716	6.66	6.64	1.14	0.05859
3/14/2002 6:15:12 PM	65712	721	6.67	6.65	1.13	0.05401
3/14/2002 6:15:19 PM	65719	728	6.68	6.66	1.12	0.04977
3/14/2002 6:15:25 PM	65725	734	6.70	6.67	1.11	0.04392
3/14/2002 6:15:32 PM	65732	741	6.71	6.68	1.10	0.03958
3/14/2002 6:15:40 PM	65740	749	6.72	6.70	1.08	0.03480
3/14/2002 6:15:47 PM	65747	756	6.73	6.71	1.07	0.02996
3/14/2002 6:15:53 PM	65753	762	6.75	6.72	1.06	0.02425
3/14/2002 6:16:01 PM	65761	770	6.76	6.73	1.05	0.01929
3/14/2002 6:16:07 PM	65767	776	6.77	6.75	1.03	0.01428
3/14/2002 6:16:14 PM	65774	783	6.78	6.76	1.02	0.00963
3/14/2002 6:16:19 PM	65779	788	6.79	6.77	1.01	0.00451
3/14/2002 6:16:25 PM	65785	794	6.80	6.78	1.00	-0.00068
3/14/2002 6:16:32 PM	65792	801	6.82	6.79	0.99	-0.00593
3/14/2002 6:16:39 PM	65799	808	6.83	6.81	0.97	-0.01214
3/14/2002 6:16:46 PM	65806	815	6.84	6.82	0.96	-0.01753
3/14/2002 6:16:54 PM	65814	823	6.86	6.83	0.95	-0.02391
3/14/2002 6:17:00 PM	65820	829	6.87	6.85	0.93	-0.02945
3/14/2002 6:17:07 PM	65827	836	6.88	6.86	0.92	-0.03460
3/14/2002 6:17:12 PM	65832	841	6.89	6.87	0.91	-0.03933
3/14/2002 6:17:19 PM	65839	848	6.90	6.88	0.90	-0.04507
3/14/2002 6:17:26 PM	65846	855	6.91	6.89	0.89	-0.05040
3/14/2002 6:17:34 PM	65854	863	6.92	6.90	0.88	-0.05629
3/14/2002 6:17:40 PM	65860	869	6.94	6.91	0.87	-0.06227
3/14/2002 6:17:48 PM	65868	877	6.95	6.93	0.85	-0.06832
3/14/2002 6:17:51 PM	65871	880	6.95	6.93	0.85	-0.07087
3/14/2002 6:17:57 PM	65877	886	6.96	6.94	0.84	-0.07447
3/14/2002 6:18:07 PM	65887	896	6.97	6.95	0.83	-0.08018
3/14/2002 6:18:13 PM	65893	902	6.98	6.96	0.82	-0.08649
3/14/2002 6:18:20 PM	65900	909	6.99	6.97	0.81	-0.09182
3/14/2002 6:18:29 PM	65909	918	7.00	6.98	0.80	-0.09776
3/14/2002 6:18:36 PM	65916	925	7.01	6.99	0.79	-0.10324
3/14/2002 6:18:45 PM	65925	934	7.03	7.00	0.78	-0.10990
3/14/2002 6:18:54 PM	65934	943	7.04	7.01	0.77	-0.11610
3/14/2002 6:19:02 PM	65942	951	7.05	7.03	0.75	-0.12296
3/14/2002 6:19:13 PM	65953	962	7.06	7.04	0.74	-0.12993
3/14/2002 6:19:24 PM	65964	973	7.08	7.05	0.73	-0.13821
3/14/2002 6:19:35 PM	65975	984	7.09	7.06	0.72	-0.14543
3/14/2002 6:19:45 PM	65985	994	7.10	7.08	0.70	-0.15278
3/14/2002 6:20:00 PM	66000	1009	7.11	7.09	0.69	-0.16151
3/14/2002 6:20:12 PM	66012	1021	7.13	7.10	0.68	-0.16914
3/14/2002 6:20:22 PM	66022	1031	7.14	7.11	0.67	-0.17625
3/14/2002 6:20:33 PM	66033	1042	7.15	7.13	0.65	-0.18414
3/14/2002 6:20:43 PM	66043	1052	7.16	7.14	0.64	-0.19083
3/14/2002 6:20:56 PM	66056	1065	7.17	7.15	0.63	-0.19830
3/14/2002 6:21:06 PM	66066	1075	7.18	7.16	0.62	-0.20521
3/14/2002 6:21:16 PM	66076	1085	7.19	7.17	0.61	-0.21365
3/14/2002 6:21:28 PM	66088	1097	7.20	7.18	0.60	-0.22154
3/14/2002 6:21:40 PM	66100	1109	7.21	7.19	0.59	-0.23031

Table B-8. Slug test on CD-5 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 6:21:52 PM	66112	1121	7.23	7.20	0.58	-0.23925
3/14/2002 6:22:05 PM	66125	1134	7.24	7.22	0.56	-0.24839
3/14/2002 6:22:18 PM	66138	1147	7.25	7.23	0.55	-0.25694
3/14/2002 6:22:29 PM	66149	1158	7.26	7.24	0.54	-0.26486
3/14/2002 6:22:42 PM	66162	1171	7.27	7.25	0.53	-0.27456
3/14/2002 6:22:54 PM	66174	1183	7.28	7.26	0.52	-0.28447
3/14/2002 6:23:08 PM	66188	1197	7.29	7.27	0.51	-0.29377
3/14/2002 6:23:16 PM	66196	1205	7.30	7.28	0.50	-0.30240
3/14/2002 6:23:34 PM	66214	1223	7.32	7.29	0.49	-0.31298
3/14/2002 6:23:51 PM	66231	1240	7.33	7.30	0.48	-0.32291
3/14/2002 6:24:07 PM	66247	1256	7.34	7.32	0.46	-0.33402
3/14/2002 6:24:24 PM	66264	1273	7.35	7.33	0.45	-0.34541
3/14/2002 6:24:43 PM	66283	1292	7.36	7.34	0.44	-0.35711
3/14/2002 6:25:05 PM	66305	1314	7.38	7.35	0.43	-0.37117
3/14/2002 6:25:23 PM	66323	1332	7.39	7.37	0.41	-0.38360
3/14/2002 6:25:41 PM	66341	1350	7.40	7.37	0.41	-0.39102

Table B-8. Slug test on CD-5

(Continued from previous page)

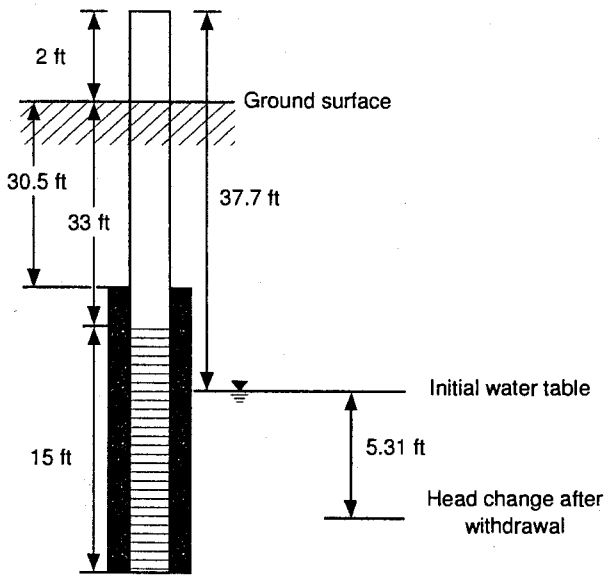
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	37.70	ft
Initial Head Change:	5.31	ft
Total well length:	52	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	2.02	ft
Drawdown at time = t (y_t):	0.85	ft
Elapsed Time between y_0 and y_t (t):	480	sec
Initial water column in well (L_w):	14.30	ft
$\ln(R_e/r_w)$ =	2.33	
K =	5.95E-06	ft/sec
	1.81E-04	
	187.79	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-9. Slug test on CD-6

Offset in logger reading (feet):	0.11	Date:	3/14/2002
Initial depth to water table (feet):	11.32		
Depth of probe below water table (feet):	7.31		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:06:46 PM	54406	0	1.40	1.29	6.02	0.77984
3/14/2002 3:06:47 PM	54407	1	1.44	1.33	5.98	0.77644
3/14/2002 3:06:48 PM	54408	2	1.56	1.46	5.85	0.76748
3/14/2002 3:06:49 PM	54409	3	1.60	1.49	5.82	0.76503
3/14/2002 3:06:50 PM	54410	4	1.62	1.51	5.80	0.76361
3/14/2002 3:06:51 PM	54411	5	1.63	1.52	5.79	0.76233
3/14/2002 3:06:52 PM	54412	6	1.65	1.54	5.77	0.76128
3/14/2002 3:06:53 PM	54413	7	1.66	1.55	5.76	0.76023
3/14/2002 3:06:54 PM	54414	8	1.68	1.57	5.74	0.75917
3/14/2002 3:06:55 PM	54415	9	1.69	1.58	5.73	0.75826
3/14/2002 3:06:56 PM	54416	10	1.70	1.59	5.72	0.75720
3/14/2002 3:06:57 PM	54417	11	1.71	1.60	5.71	0.75629
3/14/2002 3:06:58 PM	54418	12	1.73	1.62	5.69	0.75537
3/14/2002 3:06:59 PM	54419	13	1.74	1.63	5.68	0.75453
3/14/2002 3:07:00 PM	54420	14	1.75	1.64	5.67	0.75338
3/14/2002 3:07:01 PM	54421	15	1.76	1.65	5.66	0.75254
3/14/2002 3:07:02 PM	54422	16	1.77	1.67	5.64	0.75162
3/14/2002 3:07:03 PM	54423	17	1.79	1.68	5.63	0.75069
3/14/2002 3:07:04 PM	54424	18	1.80	1.69	5.62	0.74984
3/14/2002 3:07:05 PM	54425	19	1.81	1.70	5.61	0.74868
3/14/2002 3:07:06 PM	54426	20	1.83	1.72	5.59	0.74760
3/14/2002 3:07:07 PM	54427	21	1.85	1.74	5.57	0.74612
3/14/2002 3:07:08 PM	54428	22	1.87	1.76	5.55	0.74432
3/14/2002 3:07:09 PM	54429	23	1.90	1.79	5.52	0.74189
3/14/2002 3:07:10 PM	54430	24	1.95	1.84	5.47	0.73802
3/14/2002 3:07:11 PM	54431	25	2.00	1.89	5.42	0.73387
3/14/2002 3:07:12 PM	54432	26	2.05	1.94	5.37	0.73025
3/14/2002 3:07:13 PM	54433	27	2.08	1.97	5.34	0.72725
3/14/2002 3:07:14 PM	54434	28	2.11	2.00	5.31	0.72472
3/14/2002 3:07:15 PM	54435	29	2.14	2.04	5.27	0.72217
3/14/2002 3:07:16 PM	54436	30	2.17	2.07	5.24	0.71970
3/14/2002 3:07:17 PM	54437	31	2.20	2.09	5.22	0.71754
3/14/2002 3:07:18 PM	54438	32	2.22	2.12	5.19	0.71554
3/14/2002 3:07:19 PM	54439	33	2.25	2.14	5.17	0.71378
3/14/2002 3:07:20 PM	54440	34	2.27	2.16	5.15	0.71201
3/14/2002 3:07:21 PM	54441	35	2.29	2.18	5.13	0.71041
3/14/2002 3:07:22 PM	54442	36	2.30	2.20	5.11	0.70879
3/14/2002 3:07:23 PM	54443	37	2.32	2.21	5.10	0.70743
3/14/2002 3:07:24 PM	54444	38	2.34	2.23	5.08	0.70581
3/14/2002 3:07:25 PM	54445	39	2.36	2.25	5.06	0.70436
3/14/2002 3:07:26 PM	54446	40	2.37	2.27	5.04	0.70281
3/14/2002 3:07:27 PM	54447	41	2.39	2.28	5.03	0.70134
3/14/2002 3:07:28 PM	54448	42	2.41	2.30	5.01	0.69996
3/14/2002 3:07:29 PM	54449	43	2.42	2.32	4.99	0.69848
3/14/2002 3:07:30 PM	54450	44	2.44	2.33	4.98	0.69709
3/14/2002 3:07:31 PM	54451	45	2.45	2.35	4.96	0.69587
3/14/2002 3:07:32 PM	54452	46	2.47	2.36	4.95	0.69482
3/14/2002 3:07:33 PM	54453	47	2.48	2.37	4.94	0.69332

Table B-9. Slug test on CD-6 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:07:34 PM	54454	48	2.49	2.39	4.92	0.69235
3/14/2002 3:07:35 PM	54455	49	2.51	2.40	4.91	0.69129
3/14/2002 3:07:36 PM	54456	50	2.52	2.41	4.90	0.69023
3/14/2002 3:07:37 PM	54457	51	2.53	2.42	4.89	0.68899
3/14/2002 3:07:39 PM	54459	53	2.55	2.44	4.87	0.68712
3/14/2002 3:07:40 PM	54460	54	2.57	2.46	4.85	0.68605
3/14/2002 3:07:41 PM	54461	55	2.58	2.47	4.84	0.68497
3/14/2002 3:07:43 PM	54463	57	2.60	2.49	4.82	0.68308
3/14/2002 3:07:44 PM	54464	58	2.61	2.50	4.81	0.68209
3/14/2002 3:07:46 PM	54466	60	2.63	2.52	4.79	0.68037
3/14/2002 3:07:48 PM	54468	62	2.65	2.54	4.77	0.67837
3/14/2002 3:07:50 PM	54470	64	2.67	2.56	4.75	0.67673
3/14/2002 3:07:51 PM	54471	65	2.68	2.57	4.74	0.67563
3/14/2002 3:07:53 PM	54473	67	2.70	2.59	4.72	0.67389
3/14/2002 3:07:55 PM	54475	69	2.72	2.61	4.70	0.67195
3/14/2002 3:07:57 PM	54477	71	2.74	2.63	4.68	0.67038
3/14/2002 3:07:58 PM	54478	72	2.75	2.64	4.67	0.66935
3/14/2002 3:08:00 PM	54480	74	2.77	2.66	4.65	0.66758
3/14/2002 3:08:02 PM	54482	76	2.79	2.68	4.63	0.66581
3/14/2002 3:08:03 PM	54483	77	2.80	2.69	4.62	0.66468
3/14/2002 3:08:05 PM	54485	79	2.81	2.71	4.60	0.66317
3/14/2002 3:08:06 PM	54486	80	2.83	2.72	4.59	0.66204
3/14/2002 3:08:08 PM	54488	82	2.85	2.74	4.57	0.66005
3/14/2002 3:08:10 PM	54490	84	2.87	2.76	4.55	0.65824
3/14/2002 3:08:12 PM	54492	86	2.89	2.78	4.53	0.65623
3/14/2002 3:08:17 PM	54497	91	2.90	2.79	4.52	0.65518
3/14/2002 3:08:20 PM	54500	94	2.91	2.80	4.51	0.65402
3/14/2002 3:08:27 PM	54507	101	2.92	2.82	4.49	0.65267
3/14/2002 3:08:30 PM	54510	104	2.94	2.83	4.48	0.65112
3/14/2002 3:08:34 PM	54514	108	2.95	2.84	4.47	0.64996
3/14/2002 3:08:37 PM	54517	111	2.97	2.86	4.45	0.64859
3/14/2002 3:08:39 PM	54519	113	2.98	2.87	4.44	0.64742
3/14/2002 3:08:41 PM	54521	115	2.99	2.88	4.43	0.64625
3/14/2002 3:08:43 PM	54523	117	3.00	2.89	4.42	0.64497
3/14/2002 3:08:45 PM	54525	119	3.02	2.91	4.40	0.64349
3/14/2002 3:08:47 PM	54527	121	3.04	2.93	4.38	0.64141
3/14/2002 3:08:48 PM	54528	122	3.05	2.94	4.37	0.64032
3/14/2002 3:08:50 PM	54530	124	3.07	2.96	4.35	0.63813
3/14/2002 3:08:51 PM	54531	125	3.08	2.97	4.34	0.63703
3/14/2002 3:08:53 PM	54533	127	3.10	2.99	4.32	0.63512
3/14/2002 3:08:55 PM	54535	129	3.12	3.01	4.30	0.63341
3/14/2002 3:08:57 PM	54537	131	3.14	3.03	4.28	0.63159
3/14/2002 3:08:58 PM	54538	132	3.15	3.04	4.27	0.63037
3/14/2002 3:09:00 PM	54540	134	3.17	3.06	4.25	0.62843
3/14/2002 3:09:02 PM	54542	136	3.19	3.08	4.23	0.62628
3/14/2002 3:09:04 PM	54544	138	3.21	3.10	4.21	0.62432
3/14/2002 3:09:06 PM	54546	140	3.23	3.12	4.19	0.62246
3/14/2002 3:09:07 PM	54547	141	3.24	3.13	4.18	0.62122
3/14/2002 3:09:09 PM	54549	143	3.25	3.15	4.16	0.61955
3/14/2002 3:09:11 PM	54551	145	3.27	3.16	4.15	0.61757
3/14/2002 3:09:13 PM	54553	147	3.29	3.18	4.13	0.61578
3/14/2002 3:09:14 PM	54554	148	3.30	3.19	4.12	0.61462

Table B-9. Slug test on CD-6 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:09:16 PM	54556	150	3.32	3.21	4.10	0.61283
3/14/2002 3:09:18 PM	54558	152	3.34	3.23	4.08	0.61081
3/14/2002 3:09:20 PM	54560	154	3.36	3.25	4.06	0.60857
3/14/2002 3:09:22 PM	54562	156	3.38	3.27	4.04	0.60664
3/14/2002 3:09:23 PM	54563	157	3.39	3.28	4.03	0.60556
3/14/2002 3:09:24 PM	54564	158	3.40	3.29	4.02	0.60438
3/14/2002 3:09:26 PM	54566	160	3.41	3.31	4.00	0.60254
3/14/2002 3:09:27 PM	54567	161	3.43	3.32	3.99	0.60123
3/14/2002 3:09:29 PM	54569	163	3.44	3.34	3.97	0.59927
3/14/2002 3:09:31 PM	54571	165	3.46	3.35	3.96	0.59741
3/14/2002 3:09:32 PM	54572	166	3.47	3.36	3.95	0.59609
3/14/2002 3:09:34 PM	54574	168	3.49	3.38	3.93	0.59411
3/14/2002 3:09:36 PM	54576	170	3.51	3.40	3.91	0.59200
3/14/2002 3:09:37 PM	54577	171	3.52	3.42	3.89	0.59044
3/14/2002 3:09:39 PM	54579	173	3.54	3.43	3.88	0.58832
3/14/2002 3:09:41 PM	54581	175	3.56	3.45	3.86	0.58629
3/14/2002 3:09:42 PM	54582	176	3.57	3.46	3.85	0.58517
3/14/2002 3:09:43 PM	54583	177	3.58	3.47	3.84	0.58381
3/14/2002 3:09:45 PM	54585	179	3.60	3.49	3.82	0.58200
3/14/2002 3:09:47 PM	54587	181	3.62	3.51	3.80	0.57983
3/14/2002 3:09:49 PM	54589	183	3.64	3.53	3.78	0.57765
3/14/2002 3:09:50 PM	54590	184	3.65	3.54	3.77	0.57639
3/14/2002 3:09:52 PM	54592	186	3.67	3.56	3.75	0.57442
3/14/2002 3:09:53 PM	54593	187	3.68	3.57	3.74	0.57315
3/14/2002 3:09:55 PM	54595	189	3.69	3.58	3.73	0.57117
3/14/2002 3:09:57 PM	54597	191	3.71	3.60	3.71	0.56895
3/14/2002 3:09:59 PM	54599	193	3.73	3.62	3.69	0.56707
3/14/2002 3:10:01 PM	54601	195	3.75	3.64	3.67	0.56483
3/14/2002 3:10:02 PM	54602	196	3.76	3.65	3.66	0.56353
3/14/2002 3:10:04 PM	54604	198	3.78	3.67	3.64	0.56151
3/14/2002 3:10:06 PM	54606	200	3.79	3.68	3.63	0.55960
3/14/2002 3:10:07 PM	54607	201	3.80	3.69	3.62	0.55816
3/14/2002 3:10:09 PM	54609	203	3.82	3.71	3.60	0.55623
3/14/2002 3:10:11 PM	54611	205	3.84	3.73	3.58	0.55417
3/14/2002 3:10:13 PM	54613	207	3.85	3.74	3.57	0.55223
3/14/2002 3:10:14 PM	54614	208	3.86	3.75	3.56	0.55101
3/14/2002 3:10:16 PM	54616	210	3.88	3.77	3.54	0.54881
3/14/2002 3:10:18 PM	54618	212	3.90	3.79	3.52	0.54672
3/14/2002 3:10:20 PM	54620	214	3.91	3.80	3.51	0.54474
3/14/2002 3:10:22 PM	54622	216	3.93	3.82	3.49	0.54263
3/14/2002 3:10:24 PM	54624	218	3.95	3.84	3.47	0.54063
3/14/2002 3:10:26 PM	54626	220	3.96	3.85	3.46	0.53862
3/14/2002 3:10:28 PM	54628	222	3.98	3.87	3.44	0.53623
3/14/2002 3:10:30 PM	54630	224	4.00	3.89	3.42	0.53408
3/14/2002 3:10:32 PM	54632	226	4.01	3.91	3.40	0.53204
3/14/2002 3:10:34 PM	54634	228	4.03	3.92	3.39	0.52999
3/14/2002 3:10:36 PM	54636	230	4.05	3.94	3.37	0.52781
3/14/2002 3:10:38 PM	54638	232	4.06	3.95	3.36	0.52574
3/14/2002 3:10:40 PM	54640	234	4.08	3.97	3.34	0.52354
3/14/2002 3:10:42 PM	54642	236	4.10	3.99	3.32	0.52119
3/14/2002 3:10:44 PM	54644	238	4.12	4.01	3.30	0.51870
3/14/2002 3:10:46 PM	54646	240	4.13	4.02	3.29	0.51685

Table B-9. Slug test on CD-6 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:10:48 PM	54648	242	4.15	4.04	3.27	0.51460
3/14/2002 3:10:50 PM	54650	244	4.16	4.06	3.25	0.51247
3/14/2002 3:10:51 PM	54651	245	4.17	4.07	3.24	0.51113
3/14/2002 3:10:53 PM	54653	247	4.19	4.08	3.23	0.50899
3/14/2002 3:10:55 PM	54655	249	4.21	4.10	3.21	0.50683
3/14/2002 3:10:57 PM	54657	251	4.22	4.11	3.20	0.50480
3/14/2002 3:10:58 PM	54658	252	4.23	4.12	3.19	0.50330
3/14/2002 3:11:00 PM	54660	254	4.25	4.14	3.17	0.50098
3/14/2002 3:11:02 PM	54662	256	4.27	4.16	3.15	0.49878
3/14/2002 3:11:04 PM	54664	258	4.28	4.17	3.14	0.49643
3/14/2002 3:11:06 PM	54666	260	4.30	4.19	3.12	0.49421
3/14/2002 3:11:08 PM	54668	262	4.31	4.20	3.11	0.49226
3/14/2002 3:11:10 PM	54670	264	4.33	4.22	3.09	0.49030
3/14/2002 3:11:12 PM	54672	266	4.34	4.23	3.08	0.48861
3/14/2002 3:11:14 PM	54674	268	4.35	4.24	3.07	0.48663
3/14/2002 3:11:16 PM	54676	270	4.37	4.26	3.05	0.48464
3/14/2002 3:11:18 PM	54678	272	4.38	4.27	3.04	0.48264
3/14/2002 3:11:20 PM	54680	274	4.40	4.29	3.02	0.48021
3/14/2002 3:11:22 PM	54682	276	4.42	4.31	3.00	0.47761
3/14/2002 3:11:24 PM	54684	278	4.43	4.32	2.99	0.47515
3/14/2002 3:11:26 PM	54686	280	4.45	4.34	2.97	0.47281
3/14/2002 3:11:28 PM	54688	282	4.46	4.35	2.96	0.47076
3/14/2002 3:11:30 PM	54690	284	4.48	4.37	2.94	0.46870
3/14/2002 3:11:32 PM	54692	286	4.49	4.38	2.93	0.46619
3/14/2002 3:11:34 PM	54694	288	4.51	4.40	2.91	0.46336
3/14/2002 3:11:36 PM	54696	290	4.53	4.42	2.89	0.46126
3/14/2002 3:11:38 PM	54698	292	4.54	4.43	2.88	0.45915
3/14/2002 3:11:40 PM	54700	294	4.55	4.44	2.87	0.45734
3/14/2002 3:11:42 PM	54702	296	4.57	4.46	2.85	0.45521
3/14/2002 3:11:44 PM	54704	298	4.58	4.47	2.84	0.45353
3/14/2002 3:11:46 PM	54706	300	4.59	4.48	2.83	0.45169
3/14/2002 3:11:48 PM	54708	302	4.60	4.49	2.82	0.44985
3/14/2002 3:11:50 PM	54710	304	4.61	4.50	2.81	0.44799
3/14/2002 3:11:52 PM	54712	306	4.63	4.52	2.79	0.44582
3/14/2002 3:11:54 PM	54714	308	4.64	4.53	2.78	0.44411
3/14/2002 3:11:56 PM	54716	310	4.65	4.54	2.77	0.44223
3/14/2002 3:11:59 PM	54719	313	4.67	4.56	2.75	0.43955
3/14/2002 3:12:01 PM	54721	315	4.68	4.57	2.74	0.43781
3/14/2002 3:12:04 PM	54724	318	4.70	4.59	2.72	0.43511
3/14/2002 3:12:07 PM	54727	321	4.71	4.60	2.71	0.43255
3/14/2002 3:12:10 PM	54730	324	4.73	4.62	2.69	0.42982
3/14/2002 3:12:12 PM	54732	326	4.74	4.63	2.68	0.42804
3/14/2002 3:12:15 PM	54735	329	4.75	4.65	2.66	0.42560
3/14/2002 3:12:17 PM	54737	331	4.77	4.66	2.65	0.42331
3/14/2002 3:12:19 PM	54739	333	4.78	4.67	2.64	0.42151
3/14/2002 3:12:22 PM	54742	336	4.80	4.69	2.62	0.41870
3/14/2002 3:12:24 PM	54744	338	4.81	4.70	2.61	0.41671
3/14/2002 3:12:27 PM	54747	341	4.82	4.72	2.59	0.41404
3/14/2002 3:12:29 PM	54749	343	4.84	4.73	2.58	0.41202
3/14/2002 3:12:31 PM	54751	345	4.85	4.74	2.57	0.41000
3/14/2002 3:12:34 PM	54754	348	4.86	4.76	2.55	0.40729
3/14/2002 3:12:37 PM	54757	351	4.88	4.77	2.54	0.40490

Table B-9. Slug test on CD-6 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:12:39 PM	54759	353	4.89	4.78	2.53	0.40285
3/14/2002 3:12:42 PM	54762	356	4.91	4.80	2.51	0.40009
3/14/2002 3:12:44 PM	54764	358	4.92	4.81	2.50	0.39836
3/14/2002 3:12:47 PM	54767	361	4.93	4.82	2.49	0.39592
3/14/2002 3:12:50 PM	54770	364	4.95	4.84	2.47	0.39312
3/14/2002 3:12:52 PM	54772	366	4.96	4.85	2.46	0.39136
3/14/2002 3:12:54 PM	54774	368	4.97	4.86	2.45	0.38941
3/14/2002 3:12:56 PM	54776	370	4.98	4.87	2.44	0.38764
3/14/2002 3:12:58 PM	54778	372	4.99	4.88	2.43	0.38550
3/14/2002 3:13:01 PM	54781	375	5.00	4.89	2.42	0.38299
3/14/2002 3:13:03 PM	54783	377	5.01	4.91	2.40	0.38101
3/14/2002 3:13:06 PM	54786	380	5.03	4.92	2.39	0.37847
3/14/2002 3:13:08 PM	54788	382	5.04	4.93	2.38	0.37628
3/14/2002 3:13:11 PM	54791	385	5.05	4.95	2.36	0.37372
3/14/2002 3:13:14 PM	54794	388	5.07	4.96	2.35	0.37114
3/14/2002 3:13:16 PM	54796	390	5.08	4.97	2.34	0.36929
3/14/2002 3:13:19 PM	54799	393	5.09	4.98	2.33	0.36668
3/14/2002 3:13:22 PM	54802	396	5.11	5.00	2.31	0.36406
3/14/2002 3:13:25 PM	54805	399	5.12	5.01	2.30	0.36180
3/14/2002 3:13:28 PM	54808	402	5.13	5.02	2.29	0.35915
3/14/2002 3:13:30 PM	54810	404	5.14	5.04	2.27	0.35687
3/14/2002 3:13:33 PM	54813	407	5.16	5.05	2.26	0.35419
3/14/2002 3:13:37 PM	54817	411	5.17	5.06	2.25	0.35187
3/14/2002 3:13:40 PM	54820	414	5.18	5.08	2.23	0.34916
3/14/2002 3:13:43 PM	54823	417	5.20	5.09	2.22	0.34604
3/14/2002 3:13:46 PM	54826	420	5.21	5.10	2.21	0.34368
3/14/2002 3:13:49 PM	54829	423	5.22	5.12	2.19	0.34132
3/14/2002 3:13:52 PM	54832	426	5.24	5.13	2.18	0.33893
3/14/2002 3:13:54 PM	54834	428	5.25	5.14	2.17	0.33674
3/14/2002 3:13:57 PM	54837	431	5.26	5.15	2.16	0.33433
3/14/2002 3:14:00 PM	54840	434	5.27	5.16	2.15	0.33191
3/14/2002 3:14:03 PM	54843	437	5.29	5.18	2.13	0.32907
3/14/2002 3:14:06 PM	54846	440	5.30	5.19	2.12	0.32662
3/14/2002 3:14:09 PM	54849	443	5.31	5.20	2.11	0.32436
3/14/2002 3:14:13 PM	54853	447	5.32	5.21	2.10	0.32127
3/14/2002 3:14:16 PM	54856	450	5.34	5.23	2.08	0.31836
3/14/2002 3:14:20 PM	54860	454	5.35	5.24	2.07	0.31542
3/14/2002 3:14:24 PM	54864	458	5.37	5.26	2.05	0.31247
3/14/2002 3:14:28 PM	54868	462	5.38	5.27	2.04	0.30950
3/14/2002 3:14:31 PM	54871	465	5.39	5.28	2.03	0.30694
3/14/2002 3:14:34 PM	54874	468	5.40	5.29	2.02	0.30436
3/14/2002 3:14:37 PM	54877	471	5.42	5.31	2.00	0.30133
3/14/2002 3:14:41 PM	54881	475	5.43	5.32	1.99	0.29829
3/14/2002 3:14:45 PM	54885	479	5.45	5.34	1.97	0.29522
3/14/2002 3:14:48 PM	54888	482	5.46	5.35	1.96	0.29257
3/14/2002 3:14:52 PM	54892	486	5.47	5.36	1.95	0.28946
3/14/2002 3:14:55 PM	54895	489	5.48	5.37	1.94	0.28677
3/14/2002 3:14:59 PM	54899	493	5.50	5.39	1.92	0.28362
3/14/2002 3:15:04 PM	54904	498	5.51	5.40	1.91	0.28044
3/14/2002 3:15:07 PM	54907	501	5.52	5.41	1.90	0.27770
3/14/2002 3:15:11 PM	54911	505	5.54	5.43	1.88	0.27448
3/14/2002 3:15:16 PM	54916	510	5.55	5.44	1.87	0.27124

Table B-9. Slug test on CD-6 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:15:20 PM	54920	514	5.56	5.45	1.86	0.26844
3/14/2002 3:15:23 PM	54923	517	5.57	5.47	1.84	0.26586
3/14/2002 3:15:26 PM	54926	520	5.59	5.48	1.83	0.26302
3/14/2002 3:15:29 PM	54929	523	5.60	5.49	1.82	0.26017
3/14/2002 3:15:34 PM	54934	528	5.61	5.50	1.81	0.25681
3/14/2002 3:15:37 PM	54937	531	5.62	5.52	1.79	0.25392
3/14/2002 3:15:40 PM	54940	534	5.64	5.53	1.78	0.25101
3/14/2002 3:15:43 PM	54943	537	5.65	5.54	1.77	0.24832
3/14/2002 3:15:47 PM	54947	541	5.66	5.55	1.76	0.24462
3/14/2002 3:15:51 PM	54951	545	5.68	5.57	1.74	0.24115
3/14/2002 3:15:55 PM	54955	549	5.69	5.58	1.73	0.23840
3/14/2002 3:15:58 PM	54958	552	5.70	5.59	1.72	0.23538
3/14/2002 3:16:03 PM	54963	557	5.72	5.61	1.70	0.23106
3/14/2002 3:16:08 PM	54968	562	5.73	5.62	1.69	0.22748
3/14/2002 3:16:12 PM	54972	566	5.74	5.63	1.68	0.22438
3/14/2002 3:16:16 PM	54976	570	5.75	5.65	1.66	0.22126
3/14/2002 3:16:20 PM	54980	574	5.77	5.66	1.65	0.21838
3/14/2002 3:16:23 PM	54983	577	5.78	5.67	1.64	0.21574
3/14/2002 3:16:29 PM	54989	583	5.79	5.68	1.63	0.21256
3/14/2002 3:16:32 PM	54992	586	5.80	5.69	1.62	0.20962
3/14/2002 3:16:37 PM	54997	591	5.81	5.70	1.61	0.20585
3/14/2002 3:16:42 PM	55002	596	5.82	5.72	1.59	0.20260
3/14/2002 3:16:47 PM	55007	601	5.84	5.73	1.58	0.19932
3/14/2002 3:16:52 PM	55012	606	5.85	5.74	1.57	0.19601
3/14/2002 3:16:57 PM	55017	611	5.86	5.75	1.56	0.19268
3/14/2002 3:17:02 PM	55022	616	5.87	5.76	1.55	0.18960
3/14/2002 3:17:05 PM	55025	619	5.88	5.77	1.54	0.18622
3/14/2002 3:17:10 PM	55030	624	5.90	5.79	1.52	0.18281
3/14/2002 3:17:16 PM	55036	630	5.91	5.80	1.51	0.17880
3/14/2002 3:17:21 PM	55041	635	5.92	5.81	1.50	0.17534
3/14/2002 3:17:27 PM	55047	641	5.93	5.82	1.49	0.17184
3/14/2002 3:17:32 PM	55052	646	5.95	5.84	1.47	0.16832
3/14/2002 3:17:37 PM	55057	651	5.96	5.85	1.46	0.16507
3/14/2002 3:17:43 PM	55063	657	5.97	5.86	1.45	0.16089
3/14/2002 3:17:47 PM	55067	661	5.98	5.87	1.44	0.15788
3/14/2002 3:17:54 PM	55074	668	5.99	5.89	1.42	0.15363
3/14/2002 3:18:00 PM	55080	674	6.01	5.90	1.41	0.14996
3/14/2002 3:18:05 PM	55085	679	6.02	5.91	1.40	0.14625
3/14/2002 3:18:10 PM	55090	684	6.03	5.92	1.39	0.14189
3/14/2002 3:18:15 PM	55095	689	6.04	5.94	1.37	0.13811
3/14/2002 3:18:20 PM	55100	694	6.06	5.95	1.36	0.13462
3/14/2002 3:18:25 PM	55105	699	6.07	5.96	1.35	0.13143
3/14/2002 3:18:29 PM	55109	703	6.08	5.97	1.34	0.12756
3/14/2002 3:18:34 PM	55114	708	6.09	5.98	1.33	0.12398
3/14/2002 3:18:39 PM	55119	713	6.10	5.99	1.32	0.12005
3/14/2002 3:18:43 PM	55123	717	6.11	6.00	1.31	0.11674
3/14/2002 3:18:47 PM	55127	721	6.12	6.01	1.30	0.11307
3/14/2002 3:18:51 PM	55131	725	6.13	6.02	1.29	0.10904
3/14/2002 3:18:57 PM	55137	731	6.15	6.04	1.27	0.10428
3/14/2002 3:19:01 PM	55141	735	6.16	6.05	1.26	0.10016
3/14/2002 3:19:05 PM	55145	739	6.17	6.06	1.25	0.09601
3/14/2002 3:19:09 PM	55149	743	6.18	6.07	1.24	0.09181

Table B-9. Slug test on CD-6 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/14/2002 3:19:13 PM	55153	747	6.20	6.09	1.22	0.08757
3/14/2002 3:19:17 PM	55157	751	6.21	6.10	1.21	0.08257
3/14/2002 3:19:21 PM	55161	755	6.22	6.11	1.20	0.07751
3/14/2002 3:19:25 PM	55165	759	6.24	6.13	1.18	0.07240
3/14/2002 3:19:29 PM	55169	763	6.25	6.14	1.17	0.06796
3/14/2002 3:19:33 PM	55173	767	6.26	6.15	1.16	0.06348
3/14/2002 3:19:39 PM	55179	773	6.27	6.16	1.15	0.05934
3/14/2002 3:19:45 PM	55185	779	6.28	6.18	1.13	0.05477
3/14/2002 3:19:46 PM	55186	780	6.29	6.18	1.13	0.05362
3/14/2002 3:19:51 PM	55191	785	6.30	6.19	1.12	0.05015
3/14/2002 3:19:58 PM	55198	792	6.31	6.20	1.11	0.04548
3/14/2002 3:20:07 PM	55207	801	6.32	6.21	1.10	0.04076
3/14/2002 3:20:14 PM	55214	808	6.33	6.22	1.09	0.03639
3/14/2002 3:20:25 PM	55225	819	6.34	6.23	1.08	0.03157
3/14/2002 3:20:32 PM	55232	826	6.36	6.25	1.06	0.02670
3/14/2002 3:20:43 PM	55243	837	6.37	6.26	1.05	0.02177
3/14/2002 3:20:51 PM	55251	845	6.38	6.27	1.04	0.01678
3/14/2002 3:21:00 PM	55260	854	6.39	6.28	1.03	0.01216
3/14/2002 3:21:06 PM	55266	860	6.40	6.29	1.02	0.00792
3/14/2002 3:21:18 PM	55278	872	6.41	6.30	1.01	0.00277
3/14/2002 3:21:30 PM	55290	884	6.43	6.32	0.99	-0.00331
3/14/2002 3:21:40 PM	55300	894	6.44	6.33	0.98	-0.00860
3/14/2002 3:21:49 PM	55309	903	6.45	6.34	0.97	-0.01350
3/14/2002 3:22:00 PM	55320	914	6.46	6.35	0.96	-0.01891
3/14/2002 3:22:10 PM	55330	924	6.47	6.36	0.95	-0.02438
3/14/2002 3:22:22 PM	55342	936	6.49	6.38	0.93	-0.02993
3/14/2002 3:22:34 PM	55354	948	6.50	6.39	0.92	-0.03650
3/14/2002 3:22:46 PM	55366	960	6.51	6.40	0.91	-0.04220
3/14/2002 3:22:56 PM	55376	970	6.52	6.41	0.90	-0.04798
3/14/2002 3:23:06 PM	55386	980	6.53	6.43	0.88	-0.05335
3/14/2002 3:23:18 PM	55398	992	6.55	6.44	0.87	-0.05928
3/14/2002 3:23:27 PM	55407	1001	6.56	6.45	0.86	-0.06530
3/14/2002 3:23:41 PM	55421	1015	6.57	6.46	0.85	-0.07140
3/14/2002 3:23:53 PM	55433	1027	6.58	6.47	0.84	-0.07759
3/14/2002 3:24:04 PM	55444	1038	6.59	6.48	0.83	-0.08334
3/14/2002 3:24:16 PM	55456	1050	6.61	6.50	0.81	-0.08970
3/14/2002 3:24:31 PM	55471	1065	6.62	6.51	0.80	-0.09615
3/14/2002 3:24:48 PM	55488	1082	6.63	6.52	0.79	-0.10380
3/14/2002 3:25:02 PM	55502	1096	6.64	6.53	0.78	-0.11047
3/14/2002 3:25:16 PM	55516	1110	6.66	6.55	0.76	-0.11725
3/14/2002 3:25:32 PM	55532	1126	6.67	6.56	0.75	-0.12355
3/14/2002 3:25:46 PM	55546	1140	6.68	6.57	0.74	-0.13053
3/14/2002 3:26:00 PM	55560	1154	6.69	6.58	0.73	-0.13763
3/14/2002 3:26:14 PM	55574	1168	6.70	6.59	0.72	-0.14484
3/14/2002 3:26:29 PM	55589	1183	6.71	6.60	0.71	-0.15156
3/14/2002 3:26:40 PM	55600	1194	6.72	6.61	0.70	-0.15652

Table B-9. Slug test on CD-6 *(Continued from previous page)*

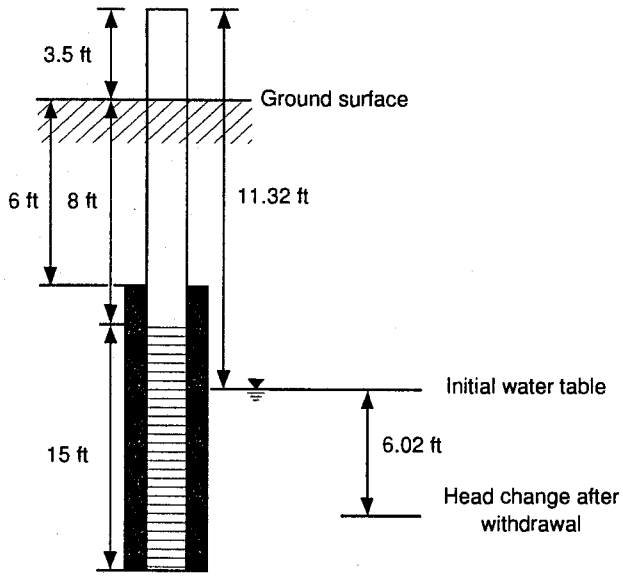
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	11.32	ft
Initial Head Change:	6.02	ft
Total well length:	26.5	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	1.13	ft
Drawdown at time = t (y_t):	0.70	ft
Elapsed Time between y_0 and y_t (t):	414	sec
Initial water column in well (L_w):	15.18	ft
$\ln(R_e/r_w)$ =	2.36	
K =	3.86E-06	ft/sec
	1.18E-04	
	121.79	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-10. Slug test on CD-7

Offset in logger reading (feet):	0.06	Date:	3/15/2002
Initial depth to water table (feet):	12.97		
Depth of probe below water table (feet):	7.15		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 10:22:51 AM	37371	0	0.57	0.50	6.65	0.82273
3/15/2002 10:22:52 AM	37372	1	0.79	0.73	6.42	0.80751
3/15/2002 10:22:53 AM	37373	2	1.03	0.97	6.18	0.79124
3/15/2002 10:22:54 AM	37374	3	1.19	1.13	6.02	0.77957
3/15/2002 10:22:55 AM	37375	4	1.33	1.27	5.88	0.76957
3/15/2002 10:22:56 AM	37376	5	1.46	1.39	5.76	0.76009
3/15/2002 10:22:57 AM	37377	6	1.58	1.52	5.63	0.75071
3/15/2002 10:22:58 AM	37378	7	1.70	1.63	5.52	0.74175
3/15/2002 10:22:59 AM	37379	8	1.81	1.75	5.40	0.73276
3/15/2002 10:23:00 AM	37380	9	1.92	1.85	5.30	0.72392
3/15/2002 10:23:01 AM	37381	10	2.03	1.96	5.19	0.71497
3/15/2002 10:23:02 AM	37382	11	2.13	2.06	5.09	0.70643
3/15/2002 10:23:03 AM	37383	12	2.23	2.16	4.99	0.69789
3/15/2002 10:23:04 AM	37384	13	2.32	2.26	4.89	0.68936
3/15/2002 10:23:05 AM	37385	14	2.42	2.35	4.80	0.68111
3/15/2002 10:23:06 AM	37386	15	2.50	2.44	4.71	0.67298
3/15/2002 10:23:07 AM	37387	16	2.59	2.53	4.62	0.66479
3/15/2002 10:23:08 AM	37388	17	2.68	2.61	4.54	0.65683
3/15/2002 10:23:09 AM	37389	18	2.76	2.70	4.45	0.64881
3/15/2002 10:23:10 AM	37390	19	2.84	2.78	4.37	0.64074
3/15/2002 10:23:11 AM	37391	20	2.92	2.85	4.30	0.63312
3/15/2002 10:23:12 AM	37392	21	2.99	2.93	4.22	0.62568
3/15/2002 10:23:13 AM	37393	22	3.06	2.99	4.16	0.61895
3/15/2002 10:23:14 AM	37394	23	3.11	3.05	4.10	0.61317
3/15/2002 10:23:15 AM	37395	24	3.15	3.09	4.06	0.60848
3/15/2002 10:23:16 AM	37396	25	3.19	3.12	4.03	0.60515
3/15/2002 10:23:17 AM	37397	26	3.21	3.15	4.00	0.60234
3/15/2002 10:23:18 AM	37398	27	3.23	3.16	3.99	0.60082
3/15/2002 10:23:19 AM	37399	28	3.24	3.18	3.97	0.59929
3/15/2002 10:23:20 AM	37400	29	3.25	3.19	3.96	0.59820
3/15/2002 10:23:21 AM	37401	30	3.26	3.20	3.95	0.59699
3/15/2002 10:23:22 AM	37402	31	3.27	3.21	3.94	0.59589
3/15/2002 10:23:24 AM	37404	33	3.28	3.22	3.93	0.59435
3/15/2002 10:23:25 AM	37405	34	3.30	3.23	3.92	0.59302
3/15/2002 10:23:27 AM	37407	36	3.31	3.25	3.90	0.59147
3/15/2002 10:23:29 AM	37409	38	3.33	3.26	3.89	0.58968
3/15/2002 10:23:31 AM	37411	40	3.34	3.28	3.87	0.58778
3/15/2002 10:23:33 AM	37413	42	3.36	3.30	3.85	0.58598
3/15/2002 10:23:34 AM	37414	43	3.37	3.31	3.84	0.58485
3/15/2002 10:23:36 AM	37416	45	3.38	3.32	3.83	0.58327
3/15/2002 10:23:38 AM	37418	47	3.40	3.34	3.81	0.58111
3/15/2002 10:23:40 AM	37420	49	3.41	3.35	3.80	0.57985
3/15/2002 10:23:42 AM	37422	51	3.43	3.37	3.78	0.57791
3/15/2002 10:23:44 AM	37424	53	3.45	3.38	3.77	0.57606
3/15/2002 10:23:45 AM	37425	54	3.46	3.39	3.76	0.57468
3/15/2002 10:23:47 AM	37427	56	3.47	3.41	3.74	0.57306
3/15/2002 10:23:49 AM	37429	58	3.49	3.43	3.72	0.57108
3/15/2002 10:23:51 AM	37431	60	3.51	3.44	3.71	0.56921

Table B-10. Slug test on CD-7 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 10:23:53 AM	37433	62	3.52	3.46	3.69	0.56721
3/15/2002 10:23:55 AM	37435	64	3.54	3.48	3.67	0.56497
3/15/2002 10:23:57 AM	37437	66	3.56	3.49	3.66	0.56308
3/15/2002 10:23:59 AM	37439	68	3.57	3.51	3.64	0.56117
3/15/2002 10:24:00 AM	37440	69	3.58	3.52	3.63	0.55998
3/15/2002 10:24:02 AM	37442	71	3.60	3.54	3.61	0.55806
3/15/2002 10:24:04 AM	37444	73	3.62	3.55	3.60	0.55577
3/15/2002 10:24:06 AM	37446	75	3.63	3.57	3.58	0.55408
3/15/2002 10:24:08 AM	37448	77	3.65	3.58	3.57	0.55238
3/15/2002 10:24:09 AM	37449	78	3.66	3.59	3.56	0.55116
3/15/2002 10:24:11 AM	37451	80	3.67	3.61	3.54	0.54944
3/15/2002 10:24:13 AM	37453	82	3.69	3.63	3.52	0.54686
3/15/2002 10:24:15 AM	37455	84	3.71	3.64	3.51	0.54476
3/15/2002 10:24:17 AM	37457	86	3.72	3.66	3.49	0.54340
3/15/2002 10:24:18 AM	37458	87	3.73	3.67	3.48	0.54215
3/15/2002 10:24:20 AM	37460	89	3.74	3.68	3.47	0.54040
3/15/2002 10:24:22 AM	37462	91	3.76	3.70	3.45	0.53840
3/15/2002 10:24:23 AM	37463	92	3.77	3.71	3.44	0.53714
3/15/2002 10:24:25 AM	37465	94	3.78	3.72	3.43	0.53537
3/15/2002 10:24:27 AM	37467	96	3.80	3.73	3.42	0.53385
3/15/2002 10:24:29 AM	37469	98	3.81	3.75	3.40	0.53207
3/15/2002 10:24:31 AM	37471	100	3.82	3.76	3.39	0.53028
3/15/2002 10:24:32 AM	37472	101	3.84	3.77	3.38	0.52874
3/15/2002 10:24:34 AM	37474	103	3.85	3.78	3.37	0.52719
3/15/2002 10:24:36 AM	37476	105	3.86	3.80	3.35	0.52512
3/15/2002 10:24:38 AM	37478	107	3.88	3.81	3.34	0.52330
3/15/2002 10:24:40 AM	37480	109	3.89	3.83	3.32	0.52148
3/15/2002 10:24:42 AM	37482	111	3.91	3.84	3.31	0.51964
3/15/2002 10:24:44 AM	37484	113	3.92	3.86	3.29	0.51780
3/15/2002 10:24:46 AM	37486	115	3.93	3.87	3.28	0.51622
3/15/2002 10:24:48 AM	37488	117	3.95	3.88	3.27	0.51436
3/15/2002 10:24:50 AM	37490	119	3.96	3.90	3.25	0.51250
3/15/2002 10:24:52 AM	37492	121	3.97	3.91	3.24	0.51089
3/15/2002 10:24:54 AM	37494	123	3.99	3.92	3.23	0.50901
3/15/2002 10:24:56 AM	37496	125	4.00	3.94	3.21	0.50713
3/15/2002 10:24:58 AM	37498	127	4.01	3.95	3.20	0.50510
3/15/2002 10:25:01 AM	37501	130	4.03	3.97	3.18	0.50292
3/15/2002 10:25:03 AM	37503	132	4.04	3.98	3.17	0.50128
3/15/2002 10:25:05 AM	37505	134	4.06	3.99	3.16	0.49936
3/15/2002 10:25:07 AM	37507	136	4.07	4.01	3.14	0.49715
3/15/2002 10:25:09 AM	37509	138	4.09	4.03	3.12	0.49452
3/15/2002 10:25:12 AM	37512	141	4.11	4.05	3.10	0.49187
3/15/2002 10:25:14 AM	37514	143	4.12	4.06	3.09	0.49018
3/15/2002 10:25:16 AM	37516	145	4.14	4.07	3.08	0.48793
3/15/2002 10:25:18 AM	37518	147	4.15	4.09	3.06	0.48595
3/15/2002 10:25:20 AM	37520	149	4.16	4.10	3.05	0.48424
3/15/2002 10:25:22 AM	37522	151	4.18	4.11	3.04	0.48224
3/15/2002 10:25:24 AM	37524	153	4.20	4.13	3.02	0.47981
3/15/2002 10:25:26 AM	37526	155	4.21	4.15	3.00	0.47779
3/15/2002 10:25:28 AM	37528	157	4.22	4.16	2.99	0.47576
3/15/2002 10:25:30 AM	37530	159	4.24	4.17	2.98	0.47372
3/15/2002 10:25:32 AM	37532	161	4.25	4.19	2.96	0.47123

Table B-10. Slug test on CD-7 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 10:25:34 AM	37534	163	4.27	4.21	2.94	0.46888
3/15/2002 10:25:36 AM	37536	165	4.28	4.22	2.93	0.46681
3/15/2002 10:25:38 AM	37538	167	4.30	4.23	2.92	0.46473
3/15/2002 10:25:40 AM	37540	169	4.31	4.25	2.90	0.46264
3/15/2002 10:25:42 AM	37542	171	4.33	4.27	2.88	0.46009
3/15/2002 10:25:44 AM	37544	173	4.34	4.28	2.87	0.45797
3/15/2002 10:25:46 AM	37546	175	4.36	4.30	2.85	0.45539
3/15/2002 10:25:48 AM	37548	177	4.37	4.31	2.84	0.45326
3/15/2002 10:25:50 AM	37550	179	4.39	4.32	2.83	0.45111
3/15/2002 10:25:52 AM	37552	181	4.40	4.34	2.81	0.44895
3/15/2002 10:25:54 AM	37554	183	4.42	4.35	2.80	0.44679
3/15/2002 10:25:56 AM	37556	185	4.43	4.37	2.78	0.44414
3/15/2002 10:25:58 AM	37558	187	4.45	4.38	2.77	0.44195
3/15/2002 10:26:00 AM	37560	189	4.46	4.40	2.75	0.43974
3/15/2002 10:26:02 AM	37562	191	4.48	4.41	2.74	0.43721
3/15/2002 10:26:04 AM	37564	193	4.49	4.43	2.72	0.43530
3/15/2002 10:26:06 AM	37566	195	4.50	4.44	2.71	0.43307
3/15/2002 10:26:08 AM	37568	197	4.52	4.46	2.69	0.43033
3/15/2002 10:26:10 AM	37570	199	4.53	4.47	2.68	0.42807
3/15/2002 10:26:12 AM	37572	201	4.55	4.48	2.67	0.42612
3/15/2002 10:26:14 AM	37574	203	4.56	4.50	2.65	0.42351
3/15/2002 10:26:16 AM	37576	205	4.57	4.51	2.64	0.42154
3/15/2002 10:26:18 AM	37578	207	4.59	4.52	2.63	0.41923
3/15/2002 10:26:20 AM	37580	209	4.60	4.54	2.61	0.41691
3/15/2002 10:26:22 AM	37582	211	4.61	4.55	2.60	0.41491
3/15/2002 10:26:24 AM	37584	213	4.63	4.56	2.59	0.41256
3/15/2002 10:26:26 AM	37586	215	4.64	4.58	2.57	0.41020
3/15/2002 10:26:28 AM	37588	217	4.66	4.59	2.56	0.40783
3/15/2002 10:26:30 AM	37590	219	4.67	4.60	2.55	0.40579
3/15/2002 10:26:32 AM	37592	221	4.68	4.62	2.53	0.40340
3/15/2002 10:26:34 AM	37594	223	4.69	4.63	2.52	0.40133
3/15/2002 10:26:36 AM	37596	225	4.71	4.64	2.51	0.39926
3/15/2002 10:26:38 AM	37598	227	4.72	4.65	2.50	0.39735
3/15/2002 10:26:40 AM	37600	229	4.73	4.67	2.48	0.39526
3/15/2002 10:26:42 AM	37602	231	4.74	4.68	2.47	0.39280
3/15/2002 10:26:45 AM	37605	234	4.76	4.70	2.45	0.38980
3/15/2002 10:26:47 AM	37607	236	4.77	4.71	2.44	0.38732
3/15/2002 10:26:49 AM	37609	238	4.79	4.72	2.43	0.38518
3/15/2002 10:26:51 AM	37611	240	4.80	4.73	2.42	0.38303
3/15/2002 10:26:53 AM	37613	242	4.81	4.75	2.40	0.38104
3/15/2002 10:26:56 AM	37616	245	4.83	4.76	2.39	0.37796
3/15/2002 10:26:59 AM	37619	248	4.84	4.78	2.37	0.37504
3/15/2002 10:27:01 AM	37621	250	4.86	4.79	2.36	0.37247
3/15/2002 10:27:04 AM	37624	253	4.87	4.80	2.35	0.37025
3/15/2002 10:27:06 AM	37626	255	4.88	4.82	2.33	0.36765
3/15/2002 10:27:08 AM	37628	257	4.89	4.83	2.32	0.36579
3/15/2002 10:27:10 AM	37630	259	4.90	4.84	2.31	0.36372
3/15/2002 10:27:12 AM	37632	261	4.91	4.85	2.30	0.36184
3/15/2002 10:27:14 AM	37634	263	4.93	4.86	2.29	0.35919
3/15/2002 10:27:17 AM	37637	266	4.94	4.88	2.27	0.35652
3/15/2002 10:27:20 AM	37640	269	4.96	4.89	2.26	0.35384
3/15/2002 10:27:22 AM	37642	271	4.97	4.90	2.25	0.35153

Table B-10. Slug test on CD-7

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 10:27:25 AM	37645	274	4.99	4.92	2.23	0.34784
3/15/2002 10:27:29 AM	37649	278	5.00	4.94	2.21	0.34510
3/15/2002 10:27:31 AM	37651	280	5.01	4.95	2.20	0.34274
3/15/2002 10:27:33 AM	37653	282	5.02	4.96	2.19	0.34056
3/15/2002 10:27:35 AM	37655	284	5.03	4.97	2.18	0.33858
3/15/2002 10:27:38 AM	37658	287	5.05	4.98	2.17	0.33578
3/15/2002 10:27:41 AM	37661	290	5.06	5.00	2.15	0.33296
3/15/2002 10:27:44 AM	37664	293	5.08	5.01	2.14	0.33013
3/15/2002 10:27:46 AM	37666	295	5.09	5.02	2.13	0.32769
3/15/2002 10:27:49 AM	37669	298	5.10	5.04	2.11	0.32482
3/15/2002 10:27:52 AM	37672	301	5.12	5.05	2.10	0.32193
3/15/2002 10:27:55 AM	37675	304	5.13	5.07	2.08	0.31902
3/15/2002 10:27:57 AM	37677	306	5.14	5.08	2.07	0.31693
3/15/2002 10:28:00 AM	37680	309	5.15	5.09	2.06	0.31399
3/15/2002 10:28:03 AM	37683	312	5.17	5.10	2.05	0.31103
3/15/2002 10:28:06 AM	37686	315	5.18	5.12	2.03	0.30805
3/15/2002 10:28:08 AM	37688	317	5.19	5.13	2.02	0.30548
3/15/2002 10:28:11 AM	37691	320	5.21	5.14	2.01	0.30246
3/15/2002 10:28:13 AM	37693	322	5.22	5.16	1.99	0.29986
3/15/2002 10:28:16 AM	37696	325	5.23	5.17	1.98	0.29724
3/15/2002 10:28:19 AM	37699	328	5.25	5.18	1.97	0.29416
3/15/2002 10:28:22 AM	37702	331	5.26	5.19	1.96	0.29172
3/15/2002 10:28:24 AM	37704	333	5.27	5.20	1.95	0.28905
3/15/2002 10:28:27 AM	37707	336	5.28	5.22	1.93	0.28592
3/15/2002 10:28:30 AM	37710	339	5.29	5.23	1.92	0.28321
3/15/2002 10:28:33 AM	37713	342	5.31	5.24	1.91	0.28003
3/15/2002 10:28:36 AM	37716	345	5.32	5.26	1.89	0.27729
3/15/2002 10:28:38 AM	37718	347	5.33	5.27	1.88	0.27453
3/15/2002 10:28:40 AM	37720	349	5.34	5.28	1.87	0.27198
3/15/2002 10:28:43 AM	37723	352	5.36	5.29	1.86	0.26848
3/15/2002 10:28:46 AM	37726	355	5.37	5.31	1.84	0.26472
3/15/2002 10:28:48 AM	37728	357	5.38	5.32	1.83	0.26236
3/15/2002 10:28:51 AM	37731	360	5.40	5.33	1.82	0.25902
3/15/2002 10:28:54 AM	37734	363	5.41	5.35	1.80	0.25638
3/15/2002 10:28:57 AM	37737	366	5.42	5.36	1.79	0.25300
3/15/2002 10:29:00 AM	37740	369	5.44	5.37	1.78	0.25008
3/15/2002 10:29:02 AM	37742	371	5.45	5.38	1.77	0.24714
3/15/2002 10:29:05 AM	37745	374	5.46	5.40	1.75	0.24418
3/15/2002 10:29:08 AM	37748	377	5.47	5.41	1.74	0.24070
3/15/2002 10:29:11 AM	37751	380	5.49	5.42	1.73	0.23769
3/15/2002 10:29:14 AM	37754	383	5.50	5.43	1.72	0.23467
3/15/2002 10:29:17 AM	37757	386	5.51	5.44	1.71	0.23188
3/15/2002 10:29:20 AM	37760	389	5.52	5.46	1.69	0.22830
3/15/2002 10:29:24 AM	37764	393	5.54	5.47	1.68	0.22469
3/15/2002 10:29:27 AM	37767	396	5.55	5.48	1.67	0.22209
3/15/2002 10:29:30 AM	37770	399	5.56	5.49	1.66	0.21896
3/15/2002 10:29:33 AM	37773	402	5.57	5.51	1.64	0.21606
3/15/2002 10:29:36 AM	37776	405	5.58	5.52	1.63	0.21288
3/15/2002 10:29:39 AM	37779	408	5.59	5.53	1.62	0.20968
3/15/2002 10:29:42 AM	37782	411	5.61	5.54	1.61	0.20645
3/15/2002 10:29:45 AM	37785	414	5.62	5.56	1.59	0.20265
3/15/2002 10:29:49 AM	37789	418	5.63	5.57	1.58	0.19882

Table B-10. Slug test on CD-7 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 10:29:52 AM	37792	421	5.65	5.58	1.57	0.19551
3/15/2002 10:29:56 AM	37796	425	5.66	5.60	1.55	0.19162
3/15/2002 10:30:00 AM	37800	429	5.67	5.61	1.54	0.18825
3/15/2002 10:30:03 AM	37803	432	5.68	5.62	1.53	0.18515
3/15/2002 10:30:06 AM	37806	435	5.70	5.63	1.52	0.18116
3/15/2002 10:30:09 AM	37809	438	5.71	5.64	1.51	0.17771
3/15/2002 10:30:13 AM	37813	442	5.72	5.66	1.49	0.17365
3/15/2002 10:30:16 AM	37816	445	5.73	5.67	1.48	0.17014
3/15/2002 10:30:20 AM	37820	449	5.75	5.68	1.47	0.16661
3/15/2002 10:30:23 AM	37823	452	5.76	5.69	1.46	0.16304
3/15/2002 10:30:26 AM	37826	455	5.77	5.71	1.44	0.15975
3/15/2002 10:30:30 AM	37830	459	5.78	5.72	1.43	0.15612
3/15/2002 10:30:32 AM	37832	461	5.79	5.73	1.42	0.15308
3/15/2002 10:30:36 AM	37836	465	5.81	5.74	1.41	0.14879
3/15/2002 10:30:40 AM	37840	469	5.82	5.76	1.39	0.14445
3/15/2002 10:30:44 AM	37844	473	5.83	5.77	1.38	0.14007
3/15/2002 10:30:48 AM	37848	477	5.85	5.78	1.37	0.13564
3/15/2002 10:30:52 AM	37852	481	5.86	5.80	1.35	0.13117
3/15/2002 10:30:56 AM	37856	485	5.87	5.81	1.34	0.12730
3/15/2002 10:31:00 AM	37860	489	5.89	5.82	1.33	0.12274
3/15/2002 10:31:04 AM	37864	493	5.90	5.84	1.31	0.11879
3/15/2002 10:31:08 AM	37868	497	5.91	5.85	1.30	0.11481
3/15/2002 10:31:12 AM	37872	501	5.92	5.86	1.29	0.11113
3/15/2002 10:31:15 AM	37875	504	5.93	5.87	1.28	0.10775
3/15/2002 10:31:19 AM	37879	508	5.94	5.88	1.27	0.10367
3/15/2002 10:31:23 AM	37883	512	5.96	5.89	1.26	0.09989
3/15/2002 10:31:27 AM	37887	516	5.97	5.90	1.25	0.09573
3/15/2002 10:31:29 AM	37889	518	5.98	5.91	1.24	0.09223
3/15/2002 10:31:33 AM	37893	522	5.99	5.92	1.23	0.08835
3/15/2002 10:31:37 AM	37897	526	6.00	5.94	1.21	0.08408
3/15/2002 10:31:41 AM	37901	530	6.01	5.95	1.20	0.07976
3/15/2002 10:31:46 AM	37906	535	6.02	5.96	1.19	0.07577
3/15/2002 10:31:49 AM	37909	538	6.03	5.97	1.18	0.07210
3/15/2002 10:31:55 AM	37915	544	6.05	5.98	1.17	0.06692
3/15/2002 10:32:00 AM	37920	549	6.06	6.00	1.15	0.06243
3/15/2002 10:32:05 AM	37925	554	6.07	6.01	1.14	0.05789
3/15/2002 10:32:10 AM	37930	559	6.08	6.02	1.13	0.05369
3/15/2002 10:32:16 AM	37936	565	6.10	6.03	1.12	0.04829
3/15/2002 10:32:22 AM	37942	571	6.11	6.04	1.11	0.04360
3/15/2002 10:32:26 AM	37946	575	6.12	6.05	1.10	0.03965
3/15/2002 10:32:31 AM	37951	580	6.13	6.07	1.08	0.03527
3/15/2002 10:32:36 AM	37956	585	6.14	6.08	1.07	0.03125
3/15/2002 10:32:41 AM	37961	590	6.15	6.09	1.06	0.02637
3/15/2002 10:32:47 AM	37967	596	6.16	6.10	1.05	0.02185
3/15/2002 10:32:54 AM	37974	603	6.17	6.11	1.04	0.01687
3/15/2002 10:32:58 AM	37978	607	6.19	6.12	1.03	0.01182
3/15/2002 10:33:04 AM	37984	613	6.20	6.13	1.02	0.00672
3/15/2002 10:33:10 AM	37990	619	6.21	6.15	1.00	0.00199
3/15/2002 10:33:15 AM	37995	624	6.22	6.16	0.99	-0.00235
3/15/2002 10:33:22 AM	38002	631	6.23	6.17	0.98	-0.00851
3/15/2002 10:33:29 AM	38009	638	6.25	6.18	0.97	-0.01386
3/15/2002 10:33:37 AM	38017	646	6.26	6.20	0.95	-0.02018

Table B-10. Slug test on CD-7

(Continued from previous page)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 10:33:43 AM	38023	652	6.27	6.21	0.94	-0.02567
3/15/2002 10:33:51 AM	38031	660	6.28	6.22	0.93	-0.03077
3/15/2002 10:33:55 AM	38035	664	6.29	6.23	0.92	-0.03640
3/15/2002 10:34:00 AM	38040	669	6.30	6.24	0.91	-0.04115
3/15/2002 10:34:05 AM	38045	674	6.32	6.25	0.90	-0.04643
3/15/2002 10:34:12 AM	38052	681	6.33	6.26	0.89	-0.05227
3/15/2002 10:34:19 AM	38059	688	6.34	6.28	0.87	-0.05819
3/15/2002 10:34:25 AM	38065	694	6.35	6.29	0.86	-0.06419
3/15/2002 10:34:31 AM	38071	700	6.36	6.30	0.85	-0.06976
3/15/2002 10:34:39 AM	38079	708	6.37	6.31	0.84	-0.07593
3/15/2002 10:34:46 AM	38086	715	6.39	6.32	0.83	-0.08218
3/15/2002 10:34:52 AM	38092	721	6.40	6.34	0.81	-0.08959
3/15/2002 10:35:02 AM	38102	731	6.41	6.35	0.80	-0.09604
3/15/2002 10:35:10 AM	38110	739	6.42	6.36	0.79	-0.10259
3/15/2002 10:35:18 AM	38118	747	6.44	6.37	0.78	-0.10869
3/15/2002 10:35:24 AM	38124	753	6.45	6.38	0.77	-0.11430
3/15/2002 10:35:33 AM	38133	762	6.46	6.40	0.75	-0.12228
3/15/2002 10:35:43 AM	38143	772	6.47	6.41	0.74	-0.12866
3/15/2002 10:35:48 AM	38148	777	6.48	6.42	0.73	-0.13454
3/15/2002 10:35:58 AM	38158	787	6.49	6.43	0.72	-0.14110
3/15/2002 10:36:06 AM	38166	795	6.50	6.44	0.71	-0.14715
3/15/2002 10:36:18 AM	38178	807	6.51	6.45	0.70	-0.15453
3/15/2002 10:36:25 AM	38185	814	6.52	6.46	0.69	-0.16140
3/15/2002 10:36:35 AM	38195	824	6.54	6.47	0.68	-0.16903
3/15/2002 10:36:43 AM	38203	832	6.55	6.48	0.67	-0.17548
3/15/2002 10:36:52 AM	38212	841	6.56	6.49	0.66	-0.18270
3/15/2002 10:37:02 AM	38222	851	6.57	6.51	0.64	-0.19071
3/15/2002 10:37:12 AM	38232	861	6.58	6.52	0.63	-0.19887
3/15/2002 10:37:22 AM	38242	871	6.59	6.53	0.62	-0.20719
3/15/2002 10:37:34 AM	38254	883	6.61	6.54	0.61	-0.21567
3/15/2002 10:37:47 AM	38267	896	6.62	6.55	0.60	-0.22359
3/15/2002 10:37:57 AM	38277	906	6.63	6.56	0.59	-0.23092
3/15/2002 10:38:07 AM	38287	916	6.64	6.57	0.58	-0.23913
3/15/2002 10:38:18 AM	38298	927	6.65	6.58	0.57	-0.24672
3/15/2002 10:38:33 AM	38313	942	6.66	6.60	0.55	-0.25602
3/15/2002 10:38:44 AM	38324	953	6.67	6.61	0.54	-0.26712
3/15/2002 10:39:00 AM	38340	969	6.68	6.62	0.53	-0.27605
3/15/2002 10:39:10 AM	38350	979	6.70	6.63	0.52	-0.28601

Table B-10. Slug test on CD-7

(Continued from previous page)

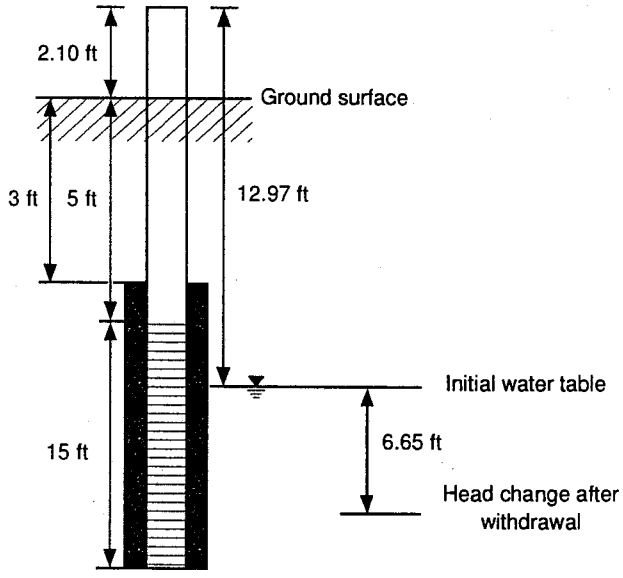
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	12.97	ft
Initial Head Change:	6.65	ft
Total well length:	22.1	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	3.95	ft
Drawdown at time = t (y_t):	1.20	ft
Elapsed Time between y_0 and y_t (t):	500	sec
Initial water column in well (L_w):	9.13	ft
$\ln(R_e/r_w)$ =	2.13	
K =	7.18E-06	ft/sec
	2.19E-04	
	226.44	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-11. Slug test on MW-16

Offset in logger reading (feet): 0.09
Initial depth to water table (feet): 11.32
Depth of probe below water table (feet): 10.10

Date: 3/15/2002

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:48:47 PM	56927	0	4.61	4.52	5.58	0.74634
3/15/2002 3:48:48 PM	56928	1	4.72	4.63	5.47	0.73816
3/15/2002 3:48:49 PM	56929	2	5.00	4.92	5.18	0.71460
3/15/2002 3:48:50 PM	56930	3	5.21	5.12	4.98	0.69742
3/15/2002 3:48:51 PM	56931	4	5.33	5.24	4.86	0.68684
3/15/2002 3:48:52 PM	56932	5	5.39	5.30	4.80	0.68117
3/15/2002 3:48:53 PM	56933	6	5.43	5.35	4.75	0.67708
3/15/2002 3:48:54 PM	56934	7	5.48	5.39	4.71	0.67313
3/15/2002 3:48:55 PM	56935	8	5.52	5.43	4.67	0.66943
3/15/2002 3:48:56 PM	56936	9	5.56	5.47	4.63	0.66551
3/15/2002 3:48:57 PM	56937	10	5.60	5.51	4.59	0.66155
3/15/2002 3:48:58 PM	56938	11	5.64	5.56	4.54	0.65746
3/15/2002 3:48:59 PM	56939	12	5.68	5.60	4.50	0.65362
3/15/2002 3:49:00 PM	56940	13	5.72	5.63	4.47	0.65023
3/15/2002 3:49:01 PM	56941	14	5.75	5.67	4.43	0.64682
3/15/2002 3:49:02 PM	56942	15	5.79	5.70	4.40	0.64308
3/15/2002 3:49:03 PM	56943	16	5.83	5.74	4.36	0.63961
3/15/2002 3:49:04 PM	56944	17	5.86	5.78	4.32	0.63581
3/15/2002 3:49:05 PM	56945	18	5.90	5.81	4.29	0.63228
3/15/2002 3:49:06 PM	56946	19	5.93	5.84	4.26	0.62892
3/15/2002 3:49:07 PM	56947	20	5.96	5.88	4.22	0.62575
3/15/2002 3:49:08 PM	56948	21	6.00	5.91	4.19	0.62234
3/15/2002 3:49:09 PM	56949	22	6.02	5.94	4.16	0.61943
3/15/2002 3:49:10 PM	56950	23	6.05	5.96	4.14	0.61671
3/15/2002 3:49:11 PM	56951	24	6.07	5.99	4.11	0.61429
3/15/2002 3:49:12 PM	56952	25	6.10	6.01	4.09	0.61154
3/15/2002 3:49:13 PM	56953	26	6.12	6.03	4.07	0.60973
3/15/2002 3:49:14 PM	56954	27	6.14	6.05	4.05	0.60748
3/15/2002 3:49:15 PM	56955	28	6.15	6.07	4.03	0.60565
3/15/2002 3:49:16 PM	56956	29	6.18	6.09	4.01	0.60317
3/15/2002 3:49:17 PM	56957	30	6.20	6.11	3.99	0.60056
3/15/2002 3:49:18 PM	56958	31	6.23	6.14	3.96	0.59783
3/15/2002 3:49:19 PM	56959	32	6.26	6.17	3.93	0.59464
3/15/2002 3:49:20 PM	56960	33	6.28	6.20	3.90	0.59154
3/15/2002 3:49:21 PM	56961	34	6.31	6.22	3.88	0.58841
3/15/2002 3:49:22 PM	56962	35	6.34	6.25	3.85	0.58526
3/15/2002 3:49:23 PM	56963	36	6.37	6.28	3.82	0.58232
3/15/2002 3:49:24 PM	56964	37	6.39	6.31	3.79	0.57901
3/15/2002 3:49:25 PM	56965	38	6.42	6.33	3.77	0.57614
3/15/2002 3:49:26 PM	56966	39	6.45	6.36	3.74	0.57278
3/15/2002 3:49:27 PM	56967	40	6.47	6.39	3.71	0.56987
3/15/2002 3:49:28 PM	56968	41	6.50	6.41	3.69	0.56705
3/15/2002 3:49:29 PM	56969	42	6.53	6.44	3.66	0.56375
3/15/2002 3:49:30 PM	56970	43	6.55	6.46	3.64	0.56065
3/15/2002 3:49:31 PM	56971	44	6.58	6.49	3.61	0.55729
3/15/2002 3:49:32 PM	56972	45	6.61	6.52	3.58	0.55379
3/15/2002 3:49:33 PM	56973	46	6.63	6.55	3.55	0.55075
3/15/2002 3:49:34 PM	56974	47	6.66	6.57	3.53	0.54719

Table B-11. Slug test on MW-16 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:49:35 PM	56975	48	6.69	6.60	3.50	0.54397
3/15/2002 3:49:36 PM	56976	49	6.72	6.63	3.47	0.54048
3/15/2002 3:49:37 PM	56977	50	6.74	6.65	3.45	0.53722
3/15/2002 3:49:38 PM	56978	51	6.77	6.68	3.42	0.53393
3/15/2002 3:49:39 PM	56979	52	6.79	6.70	3.40	0.53100
3/15/2002 3:49:40 PM	56980	53	6.82	6.73	3.37	0.52792
3/15/2002 3:49:41 PM	56981	54	6.84	6.75	3.35	0.52456
3/15/2002 3:49:42 PM	56982	55	6.86	6.78	3.32	0.52156
3/15/2002 3:49:43 PM	56983	56	6.89	6.80	3.30	0.51815
3/15/2002 3:49:44 PM	56984	57	6.91	6.83	3.27	0.51498
3/15/2002 3:49:45 PM	56985	58	6.94	6.85	3.25	0.51191
3/15/2002 3:49:46 PM	56986	59	6.96	6.87	3.23	0.50870
3/15/2002 3:49:47 PM	56987	60	6.98	6.89	3.21	0.50586
3/15/2002 3:49:48 PM	56988	61	7.01	6.92	3.18	0.50273
3/15/2002 3:49:49 PM	56989	62	7.03	6.94	3.16	0.49944
3/15/2002 3:49:50 PM	56990	63	7.05	6.96	3.14	0.49655
3/15/2002 3:49:51 PM	56991	64	7.07	6.98	3.12	0.49363
3/15/2002 3:49:52 PM	56992	65	7.09	7.00	3.10	0.49069
3/15/2002 3:49:53 PM	56993	66	7.11	7.02	3.08	0.48802
3/15/2002 3:49:54 PM	56994	67	7.13	7.04	3.06	0.48504
3/15/2002 3:49:55 PM	56995	68	7.15	7.07	3.03	0.48191
3/15/2002 3:49:56 PM	56996	69	7.17	7.08	3.02	0.47932
3/15/2002 3:49:57 PM	56997	70	7.19	7.10	3.00	0.47658
3/15/2002 3:49:58 PM	56998	71	7.21	7.12	2.98	0.47352
3/15/2002 3:49:59 PM	56999	72	7.23	7.15	2.95	0.47030
3/15/2002 3:50:00 PM	57000	73	7.25	7.17	2.93	0.46749
3/15/2002 3:50:01 PM	57001	74	7.27	7.19	2.91	0.46437
3/15/2002 3:50:02 PM	57002	75	7.30	7.21	2.89	0.46123
3/15/2002 3:50:03 PM	57003	76	7.31	7.23	2.87	0.45837
3/15/2002 3:50:04 PM	57004	77	7.33	7.24	2.86	0.45564
3/15/2002 3:50:05 PM	57005	78	7.36	7.27	2.83	0.45198
3/15/2002 3:50:06 PM	57006	79	7.38	7.29	2.81	0.44905
3/15/2002 3:50:07 PM	57007	80	7.40	7.31	2.79	0.44502
3/15/2002 3:50:08 PM	57008	81	7.43	7.34	2.76	0.44095
3/15/2002 3:50:09 PM	57009	82	7.45	7.37	2.73	0.43683
3/15/2002 3:50:10 PM	57010	83	7.48	7.40	2.70	0.43204
3/15/2002 3:50:11 PM	57011	84	7.51	7.43	2.67	0.42704
3/15/2002 3:50:12 PM	57012	85	7.54	7.45	2.65	0.42279
3/15/2002 3:50:13 PM	57013	86	7.57	7.48	2.62	0.41850
3/15/2002 3:50:14 PM	57014	87	7.59	7.50	2.60	0.41434
3/15/2002 3:50:15 PM	57015	88	7.61	7.53	2.57	0.41065
3/15/2002 3:50:16 PM	57016	89	7.64	7.55	2.55	0.40675
3/15/2002 3:50:17 PM	57017	90	7.66	7.57	2.53	0.40350
3/15/2002 3:50:18 PM	57018	91	7.67	7.59	2.51	0.40023
3/15/2002 3:50:19 PM	57019	92	7.69	7.60	2.50	0.39746
3/15/2002 3:50:20 PM	57020	93	7.71	7.62	2.48	0.39414
3/15/2002 3:50:21 PM	57021	94	7.73	7.64	2.46	0.39080
3/15/2002 3:50:22 PM	57022	95	7.74	7.66	2.44	0.38796
3/15/2002 3:50:23 PM	57023	96	7.76	7.67	2.43	0.38493
3/15/2002 3:50:24 PM	57024	97	7.78	7.69	2.41	0.38206
3/15/2002 3:50:25 PM	57025	98	7.79	7.70	2.40	0.37953
3/15/2002 3:50:26 PM	57026	99	7.81	7.72	2.38	0.37680

Table B-11. Slug test on MW-16 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:50:27 PM	57027	100	7.82	7.73	2.37	0.37387
3/15/2002 3:50:28 PM	57028	101	7.84	7.75	2.35	0.37129
3/15/2002 3:50:29 PM	57029	102	7.85	7.76	2.34	0.36870
3/15/2002 3:50:30 PM	57030	103	7.86	7.77	2.33	0.36647
3/15/2002 3:50:31 PM	57031	104	7.88	7.79	2.31	0.36290
3/15/2002 3:50:32 PM	57032	105	7.89	7.81	2.29	0.36064
3/15/2002 3:50:33 PM	57033	106	7.91	7.82	2.28	0.35798
3/15/2002 3:50:34 PM	57034	107	7.92	7.83	2.27	0.35588
3/15/2002 3:50:35 PM	57035	108	7.93	7.84	2.26	0.35358
3/15/2002 3:50:36 PM	57036	109	7.94	7.86	2.24	0.35087
3/15/2002 3:50:37 PM	57037	110	7.96	7.87	2.23	0.34854
3/15/2002 3:50:39 PM	57039	112	7.98	7.89	2.21	0.34385
3/15/2002 3:50:41 PM	57041	114	8.00	7.91	2.19	0.33970
3/15/2002 3:50:42 PM	57042	115	8.01	7.93	2.17	0.33731
3/15/2002 3:50:43 PM	57043	116	8.02	7.94	2.16	0.33510
3/15/2002 3:50:44 PM	57044	117	8.04	7.95	2.15	0.33269
3/15/2002 3:50:46 PM	57046	119	8.06	7.97	2.13	0.32843
3/15/2002 3:50:47 PM	57047	120	8.07	7.98	2.12	0.32597
3/15/2002 3:50:48 PM	57048	121	8.08	7.99	2.11	0.32351
3/15/2002 3:50:49 PM	57049	122	8.09	8.01	2.09	0.32102
3/15/2002 3:50:51 PM	57051	124	8.11	8.02	2.08	0.31728
3/15/2002 3:50:53 PM	57053	126	8.13	8.05	2.05	0.31265
3/15/2002 3:50:54 PM	57054	127	8.14	8.06	2.04	0.31032
3/15/2002 3:50:55 PM	57055	128	8.16	8.07	2.03	0.30776
3/15/2002 3:50:56 PM	57056	129	8.17	8.08	2.02	0.30519
3/15/2002 3:50:57 PM	57057	130	8.18	8.09	2.01	0.30325
3/15/2002 3:50:58 PM	57058	131	8.19	8.10	2.00	0.30021
3/15/2002 3:51:00 PM	57060	133	8.21	8.12	1.98	0.29606
3/15/2002 3:51:01 PM	57061	134	8.22	8.13	1.97	0.29341
3/15/2002 3:51:02 PM	57062	135	8.23	8.15	1.95	0.29075
3/15/2002 3:51:04 PM	57064	137	8.25	8.17	1.93	0.28651
3/15/2002 3:51:06 PM	57066	139	8.27	8.19	1.91	0.28177
3/15/2002 3:51:08 PM	57068	141	8.29	8.21	1.89	0.27743
3/15/2002 3:51:10 PM	57070	143	8.31	8.23	1.87	0.27259
3/15/2002 3:51:12 PM	57072	145	8.33	8.25	1.85	0.26816
3/15/2002 3:51:13 PM	57073	146	8.34	8.26	1.84	0.26558
3/15/2002 3:51:15 PM	57075	148	8.36	8.28	1.82	0.26108
3/15/2002 3:51:17 PM	57077	150	8.38	8.29	1.81	0.25653
3/15/2002 3:51:19 PM	57079	152	8.40	8.31	1.79	0.25242
3/15/2002 3:51:21 PM	57081	154	8.42	8.33	1.77	0.24803
3/15/2002 3:51:23 PM	57083	156	8.43	8.35	1.75	0.24384
3/15/2002 3:51:25 PM	57085	158	8.45	8.36	1.74	0.23936
3/15/2002 3:51:27 PM	57087	160	8.47	8.38	1.72	0.23508
3/15/2002 3:51:29 PM	57089	162	8.49	8.40	1.70	0.23102
3/15/2002 3:51:31 PM	57091	164	8.50	8.41	1.69	0.22666
3/15/2002 3:51:33 PM	57093	166	8.52	8.43	1.67	0.22252
3/15/2002 3:51:35 PM	57095	168	8.53	8.45	1.65	0.21860
3/15/2002 3:51:37 PM	57097	170	8.55	8.46	1.64	0.21384
3/15/2002 3:51:39 PM	57099	172	8.57	8.48	1.62	0.20931
3/15/2002 3:51:41 PM	57101	174	8.58	8.49	1.61	0.20554
3/15/2002 3:51:43 PM	57103	176	8.60	8.51	1.59	0.20119
3/15/2002 3:51:45 PM	57105	178	8.61	8.52	1.58	0.19789

Table B-11. Slug test on MW-16 (*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:51:47 PM	57107	180	8.63	8.54	1.56	0.19319
3/15/2002 3:51:49 PM	57109	182	8.64	8.55	1.55	0.18927
3/15/2002 3:51:51 PM	57111	184	8.66	8.57	1.53	0.18532
3/15/2002 3:51:53 PM	57113	186	8.67	8.58	1.52	0.18134
3/15/2002 3:51:55 PM	57115	188	8.68	8.59	1.51	0.17789
3/15/2002 3:51:58 PM	57118	191	8.70	8.61	1.49	0.17267
3/15/2002 3:52:00 PM	57120	193	8.71	8.62	1.48	0.16915
3/15/2002 3:52:02 PM	57122	195	8.72	8.64	1.46	0.16561
3/15/2002 3:52:05 PM	57125	198	8.74	8.65	1.45	0.16084
3/15/2002 3:52:07 PM	57127	200	8.76	8.67	1.43	0.15571
3/15/2002 3:52:09 PM	57129	202	8.77	8.68	1.42	0.15144
3/15/2002 3:52:12 PM	57132	205	8.79	8.70	1.40	0.14651
3/15/2002 3:52:14 PM	57134	207	8.80	8.71	1.39	0.14215
3/15/2002 3:52:16 PM	57136	209	8.82	8.73	1.37	0.13743
3/15/2002 3:52:19 PM	57139	212	8.83	8.74	1.36	0.13233
3/15/2002 3:52:21 PM	57141	214	8.85	8.76	1.34	0.12783
3/15/2002 3:52:23 PM	57143	216	8.86	8.77	1.33	0.12327
3/15/2002 3:52:26 PM	57146	219	8.88	8.79	1.31	0.11635
3/15/2002 3:52:29 PM	57149	222	8.89	8.80	1.30	0.11235
3/15/2002 3:52:32 PM	57152	225	8.91	8.82	1.28	0.10661
3/15/2002 3:52:34 PM	57154	227	8.92	8.83	1.27	0.10286
3/15/2002 3:52:36 PM	57156	229	8.93	8.85	1.25	0.09803
3/15/2002 3:52:38 PM	57158	231	8.95	8.86	1.24	0.09385
3/15/2002 3:52:40 PM	57160	233	8.96	8.87	1.23	0.08963
3/15/2002 3:52:42 PM	57162	235	8.97	8.88	1.22	0.08537
3/15/2002 3:52:44 PM	57164	237	8.98	8.89	1.21	0.08143
3/15/2002 3:52:47 PM	57167	240	9.00	8.91	1.19	0.07527
3/15/2002 3:52:49 PM	57169	242	9.01	8.92	1.18	0.07086
3/15/2002 3:52:52 PM	57172	245	9.03	8.94	1.16	0.06492
3/15/2002 3:52:54 PM	57174	247	9.04	8.95	1.15	0.06041
3/15/2002 3:52:56 PM	57176	249	9.05	8.96	1.14	0.05508
3/15/2002 3:52:59 PM	57179	252	9.07	8.98	1.12	0.04892
3/15/2002 3:53:02 PM	57182	255	9.09	9.00	1.10	0.04227
3/15/2002 3:53:04 PM	57184	257	9.10	9.01	1.09	0.03792
3/15/2002 3:53:06 PM	57186	259	9.11	9.02	1.08	0.03311
3/15/2002 3:53:08 PM	57188	261	9.12	9.03	1.07	0.02826
3/15/2002 3:53:11 PM	57191	264	9.14	9.05	1.05	0.02170
3/15/2002 3:53:13 PM	57193	266	9.15	9.06	1.04	0.01671
3/15/2002 3:53:16 PM	57196	269	9.16	9.07	1.03	0.01082
3/15/2002 3:53:19 PM	57199	272	9.18	9.09	1.01	0.00356
3/15/2002 3:53:22 PM	57202	275	9.19	9.10	1.00	-0.00121
3/15/2002 3:53:25 PM	57205	278	9.21	9.12	0.98	-0.00779
3/15/2002 3:53:28 PM	57208	281	9.22	9.13	0.97	-0.01402
3/15/2002 3:53:31 PM	57211	284	9.23	9.14	0.96	-0.01944
3/15/2002 3:53:33 PM	57213	286	9.24	9.15	0.95	-0.02446
3/15/2002 3:53:36 PM	57216	289	9.25	9.17	0.93	-0.03001
3/15/2002 3:53:39 PM	57219	292	9.27	9.18	0.92	-0.03752
3/15/2002 3:53:42 PM	57222	295	9.28	9.20	0.90	-0.04420
3/15/2002 3:53:45 PM	57225	298	9.30	9.21	0.89	-0.05001
3/15/2002 3:53:48 PM	57228	301	9.31	9.22	0.88	-0.05590
3/15/2002 3:53:50 PM	57230	303	9.32	9.23	0.87	-0.06187
3/15/2002 3:53:54 PM	57234	307	9.33	9.25	0.85	-0.06893

Table B-11. Slug test on MW-16 *(Continued from previous page)*

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:53:57 PM	57237	310	9.35	9.26	0.84	-0.07612
3/15/2002 3:54:00 PM	57240	313	9.36	9.27	0.83	-0.08185
3/15/2002 3:54:03 PM	57243	316	9.37	9.28	0.82	-0.08819
3/15/2002 3:54:07 PM	57247	320	9.39	9.30	0.80	-0.09570
3/15/2002 3:54:09 PM	57249	322	9.40	9.31	0.79	-0.10225
3/15/2002 3:54:12 PM	57252	325	9.41	9.32	0.78	-0.10889
3/15/2002 3:54:16 PM	57256	329	9.42	9.33	0.77	-0.11564
3/15/2002 3:54:19 PM	57259	332	9.43	9.35	0.75	-0.12307
3/15/2002 3:54:21 PM	57261	334	9.44	9.36	0.74	-0.12888
3/15/2002 3:54:25 PM	57265	338	9.46	9.37	0.73	-0.13595
3/15/2002 3:54:28 PM	57268	341	9.47	9.38	0.72	-0.14253
3/15/2002 3:54:32 PM	57272	345	9.48	9.39	0.71	-0.15105
3/15/2002 3:54:36 PM	57276	349	9.49	9.41	0.69	-0.15850
3/15/2002 3:54:39 PM	57279	352	9.51	9.42	0.68	-0.16607
3/15/2002 3:54:43 PM	57283	356	9.52	9.43	0.67	-0.17378
3/15/2002 3:54:47 PM	57287	360	9.53	9.44	0.66	-0.18096
3/15/2002 3:54:51 PM	57291	364	9.54	9.45	0.65	-0.18894
3/15/2002 3:54:56 PM	57296	369	9.55	9.47	0.63	-0.19844
3/15/2002 3:55:00 PM	57300	373	9.57	9.48	0.62	-0.20675
3/15/2002 3:55:04 PM	57304	377	9.58	9.49	0.61	-0.21665
3/15/2002 3:55:08 PM	57308	381	9.59	9.50	0.60	-0.22459
3/15/2002 3:55:12 PM	57312	385	9.60	9.52	0.58	-0.23342
3/15/2002 3:55:16 PM	57316	389	9.62	9.53	0.57	-0.24243
3/15/2002 3:55:20 PM	57320	393	9.63	9.54	0.56	-0.25086
3/15/2002 3:55:25 PM	57325	398	9.64	9.55	0.55	-0.26183
3/15/2002 3:55:30 PM	57330	403	9.65	9.56	0.54	-0.27146
3/15/2002 3:55:34 PM	57334	407	9.66	9.57	0.53	-0.27965
3/15/2002 3:55:38 PM	57338	411	9.68	9.59	0.51	-0.29138
3/15/2002 3:55:44 PM	57344	417	9.69	9.60	0.50	-0.30083
3/15/2002 3:55:49 PM	57349	422	9.70	9.61	0.49	-0.31316
3/15/2002 3:55:55 PM	57355	428	9.71	9.63	0.47	-0.32401
3/15/2002 3:56:01 PM	57361	434	9.73	9.64	0.46	-0.33703
3/15/2002 3:56:07 PM	57367	440	9.74	9.65	0.45	-0.34850
3/15/2002 3:56:13 PM	57373	446	9.75	9.66	0.44	-0.35929
3/15/2002 3:56:17 PM	57377	450	9.76	9.67	0.43	-0.37138
3/15/2002 3:56:23 PM	57383	456	9.77	9.69	0.41	-0.38381
3/15/2002 3:56:28 PM	57388	461	9.79	9.70	0.40	-0.39553
3/15/2002 3:56:35 PM	57395	468	9.80	9.71	0.39	-0.40868
3/15/2002 3:56:37 PM	57397	470	9.80	9.71	0.39	-0.41091
3/15/2002 3:56:42 PM	57402	475	9.81	9.72	0.38	-0.42224
3/15/2002 3:56:48 PM	57408	481	9.82	9.73	0.37	-0.43506
3/15/2002 3:56:56 PM	57416	489	9.83	9.74	0.36	-0.44949
3/15/2002 3:57:04 PM	57424	497	9.84	9.76	0.34	-0.46442
3/15/2002 3:57:13 PM	57433	506	9.86	9.77	0.33	-0.47856
3/15/2002 3:57:20 PM	57440	513	9.87	9.78	0.32	-0.49454
3/15/2002 3:57:29 PM	57449	522	9.88	9.79	0.31	-0.50972
3/15/2002 3:57:38 PM	57458	531	9.89	9.80	0.30	-0.52691
3/15/2002 3:57:47 PM	57467	540	9.90	9.81	0.29	-0.54481
3/15/2002 3:57:55 PM	57475	548	9.92	9.83	0.27	-0.56507
3/15/2002 3:58:07 PM	57487	560	9.93	9.84	0.26	-0.58132
3/15/2002 3:58:19 PM	57499	572	9.94	9.85	0.25	-0.60515
3/15/2002 3:58:34 PM	57514	587	9.95	9.86	0.24	-0.62483

Table B-11. Slug test on MW-16

(Continued from previous page)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:58:44 PM	57524	597	9.96	9.87	0.23	-0.64738
3/15/2002 3:58:57 PM	57537	610	9.97	9.89	0.21	-0.66912
3/15/2002 3:59:13 PM	57553	626	9.99	9.90	0.20	-0.69847
3/15/2002 3:59:34 PM	57574	647	10.00	9.91	0.19	-0.72531
3/15/2002 3:59:43 PM	57583	656	10.01	9.92	0.18	-0.73938

Table B-11. Slug test on MW-16 *(Continued from previous page)*

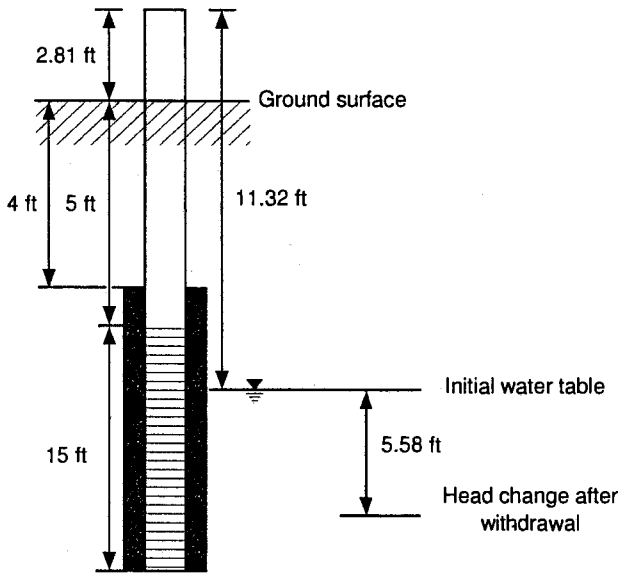
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	11.32	ft
Initial Head Change:	5.58	ft
Total well length:	22.81	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	2.01	ft
Drawdown at time = t (y_t):	0.39	ft
Elapsed Time between y_0 and y_t (t):	340	sec
Initial water column in well (L_w):	11.49	ft
$\ln(R_e/r_w)$ =	2.23	
K =	1.53E-05	ft/sec
	4.65E-04	
	481.22	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Table B-12. Slug test on MW-9RR

Offset in logger reading (feet):	0.01	Date:	3/15/2002
Initial depth to water table (feet):	18.3		
Depth of probe below water table (feet):	5.75		

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 2:59:39 PM	53979	0	0.59	0.58	5.17	0.71362
3/15/2002 2:59:40 PM	53980	1	0.62	0.61	5.14	0.71133
3/15/2002 2:59:41 PM	53981	2	0.85	0.83	4.92	0.69182
3/15/2002 2:59:42 PM	53982	3	1.00	0.99	4.76	0.67782
3/15/2002 2:59:43 PM	53983	4	1.14	1.12	4.63	0.66543
3/15/2002 2:59:44 PM	53984	5	1.25	1.23	4.52	0.65489
3/15/2002 2:59:45 PM	53985	6	1.34	1.33	4.42	0.64546
3/15/2002 2:59:46 PM	53986	7	1.42	1.41	4.34	0.63753
3/15/2002 2:59:47 PM	53987	8	1.49	1.48	4.27	0.63067
3/15/2002 2:59:48 PM	53988	9	1.55	1.54	4.21	0.62463
3/15/2002 2:59:49 PM	53989	10	1.61	1.59	4.16	0.61903
3/15/2002 2:59:50 PM	53990	11	1.65	1.63	4.12	0.61483
3/15/2002 2:59:51 PM	53991	12	1.68	1.67	4.08	0.61081
3/15/2002 2:59:52 PM	53992	13	1.72	1.70	4.05	0.60728
3/15/2002 2:59:53 PM	53993	14	1.74	1.73	4.02	0.60470
3/15/2002 2:59:54 PM	53994	15	1.76	1.75	4.00	0.60243
3/15/2002 2:59:55 PM	53995	16	1.78	1.76	3.99	0.60069
3/15/2002 2:59:56 PM	53996	17	1.79	1.77	3.98	0.59938
3/15/2002 2:59:57 PM	53997	18	1.80	1.79	3.96	0.59807
3/15/2002 2:59:58 PM	53998	19	1.81	1.80	3.95	0.59697
3/15/2002 2:59:59 PM	53999	20	1.82	1.81	3.94	0.59554
3/15/2002 3:00:01 PM	54001	22	1.85	1.83	3.92	0.59311
3/15/2002 3:00:02 PM	54002	23	1.86	1.84	3.91	0.59178
3/15/2002 3:00:03 PM	54003	24	1.87	1.86	3.89	0.59022
3/15/2002 3:00:04 PM	54004	25	1.88	1.87	3.88	0.58887
3/15/2002 3:00:05 PM	54005	26	1.90	1.88	3.87	0.58731
3/15/2002 3:00:06 PM	54006	27	1.91	1.89	3.86	0.58607
3/15/2002 3:00:07 PM	54007	28	1.92	1.91	3.84	0.58471
3/15/2002 3:00:08 PM	54008	29	1.93	1.92	3.83	0.58336
3/15/2002 3:00:09 PM	54009	30	1.95	1.93	3.82	0.58199
3/15/2002 3:00:10 PM	54010	31	1.96	1.94	3.81	0.58063
3/15/2002 3:00:12 PM	54012	33	1.98	1.96	3.79	0.57822
3/15/2002 3:00:14 PM	54014	35	2.00	1.98	3.77	0.57581
3/15/2002 3:00:16 PM	54016	37	2.02	2.00	3.75	0.57384
3/15/2002 3:00:18 PM	54018	39	2.03	2.02	3.73	0.57199
3/15/2002 3:00:20 PM	54020	41	2.05	2.04	3.71	0.56977
3/15/2002 3:00:22 PM	54022	43	2.07	2.05	3.70	0.56813
3/15/2002 3:00:24 PM	54024	45	2.08	2.07	3.68	0.56613
3/15/2002 3:00:27 PM	54027	48	2.10	2.09	3.66	0.56388
3/15/2002 3:00:29 PM	54029	50	2.12	2.10	3.65	0.56222
3/15/2002 3:00:31 PM	54031	52	2.13	2.12	3.63	0.55995
3/15/2002 3:00:33 PM	54033	54	2.15	2.13	3.62	0.55827
3/15/2002 3:00:34 PM	54034	55	2.16	2.14	3.61	0.55695
3/15/2002 3:00:36 PM	54036	57	2.18	2.16	3.59	0.55490
3/15/2002 3:00:38 PM	54038	59	2.19	2.18	3.57	0.55320
3/15/2002 3:00:40 PM	54040	61	2.20	2.19	3.56	0.55150
3/15/2002 3:00:42 PM	54042	63	2.22	2.21	3.54	0.54942
3/15/2002 3:00:44 PM	54044	65	2.24	2.22	3.53	0.54770

Table B-12. Slug test on MW-9RR

(Continued from previous page)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:00:46 PM	54046	67	2.25	2.24	3.51	0.54560
3/15/2002 3:00:48 PM	54048	69	2.27	2.25	3.50	0.54362
3/15/2002 3:00:50 PM	54050	71	2.28	2.27	3.48	0.54188
3/15/2002 3:00:51 PM	54051	72	2.29	2.28	3.47	0.54038
3/15/2002 3:00:53 PM	54053	74	2.31	2.29	3.46	0.53862
3/15/2002 3:00:55 PM	54055	76	2.33	2.31	3.44	0.53648
3/15/2002 3:00:57 PM	54057	78	2.34	2.33	3.42	0.53446
3/15/2002 3:00:59 PM	54059	80	2.36	2.34	3.41	0.53229
3/15/2002 3:01:01 PM	54061	82	2.37	2.35	3.40	0.53089
3/15/2002 3:01:02 PM	54062	83	2.38	2.37	3.38	0.52935
3/15/2002 3:01:03 PM	54063	84	2.39	2.38	3.37	0.52807
3/15/2002 3:01:05 PM	54065	86	2.41	2.39	3.36	0.52626
3/15/2002 3:01:07 PM	54067	88	2.42	2.41	3.34	0.52380
3/15/2002 3:01:09 PM	54069	90	2.44	2.42	3.33	0.52197
3/15/2002 3:01:11 PM	54071	92	2.45	2.44	3.31	0.51988
3/15/2002 3:01:13 PM	54073	94	2.47	2.46	3.29	0.51764
3/15/2002 3:01:15 PM	54075	96	2.49	2.47	3.28	0.51579
3/15/2002 3:01:17 PM	54077	98	2.50	2.48	3.27	0.51393
3/15/2002 3:01:19 PM	54079	100	2.51	2.50	3.25	0.51207
3/15/2002 3:01:21 PM	54081	102	2.53	2.51	3.24	0.51019
3/15/2002 3:01:23 PM	54083	104	2.54	2.52	3.23	0.50858
3/15/2002 3:01:25 PM	54085	106	2.55	2.54	3.21	0.50669
3/15/2002 3:01:26 PM	54086	107	2.56	2.55	3.20	0.50534
3/15/2002 3:01:28 PM	54088	109	2.58	2.56	3.19	0.50371
3/15/2002 3:01:30 PM	54090	111	2.59	2.57	3.18	0.50180
3/15/2002 3:01:31 PM	54091	112	2.60	2.59	3.16	0.50029
3/15/2002 3:01:33 PM	54093	114	2.61	2.60	3.15	0.49864
3/15/2002 3:01:35 PM	54095	116	2.63	2.61	3.14	0.49671
3/15/2002 3:01:37 PM	54097	118	2.64	2.62	3.13	0.49504
3/15/2002 3:01:38 PM	54098	119	2.65	2.63	3.12	0.49365
3/15/2002 3:01:40 PM	54100	121	2.66	2.64	3.11	0.49212
3/15/2002 3:01:41 PM	54101	122	2.67	2.65	3.10	0.49071
3/15/2002 3:01:43 PM	54103	124	2.68	2.67	3.08	0.48875
3/15/2002 3:01:45 PM	54105	126	2.70	2.68	3.07	0.48677
3/15/2002 3:01:47 PM	54107	128	2.71	2.70	3.05	0.48478
3/15/2002 3:01:49 PM	54109	130	2.72	2.71	3.04	0.48307
3/15/2002 3:01:51 PM	54111	132	2.74	2.72	3.03	0.48135
3/15/2002 3:01:53 PM	54113	134	2.75	2.73	3.02	0.47934
3/15/2002 3:01:55 PM	54115	136	2.76	2.75	3.00	0.47732
3/15/2002 3:01:57 PM	54117	138	2.78	2.76	2.99	0.47558
3/15/2002 3:01:59 PM	54119	140	2.79	2.77	2.98	0.47383
3/15/2002 3:02:01 PM	54121	142	2.80	2.79	2.96	0.47179
3/15/2002 3:02:03 PM	54123	144	2.82	2.80	2.95	0.46973
3/15/2002 3:02:05 PM	54125	146	2.83	2.81	2.94	0.46796
3/15/2002 3:02:07 PM	54127	148	2.84	2.82	2.93	0.46618
3/15/2002 3:02:09 PM	54129	150	2.85	2.84	2.91	0.46455
3/15/2002 3:02:11 PM	54131	152	2.86	2.85	2.90	0.46275
3/15/2002 3:02:13 PM	54133	154	2.87	2.86	2.89	0.46096
3/15/2002 3:02:14 PM	54134	155	2.89	2.87	2.88	0.45915
3/15/2002 3:02:17 PM	54137	158	2.90	2.89	2.86	0.45673
3/15/2002 3:02:20 PM	54140	161	2.92	2.90	2.85	0.45414
3/15/2002 3:02:22 PM	54142	163	2.93	2.92	2.83	0.45246

Table B-12. Slug test on MW-9RR

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:02:25 PM	54145	166	2.95	2.93	2.82	0.45015
3/15/2002 3:02:28 PM	54148	169	2.96	2.95	2.80	0.44768
3/15/2002 3:02:30 PM	54150	171	2.98	2.96	2.79	0.44551
3/15/2002 3:02:33 PM	54153	174	2.99	2.97	2.78	0.44332
3/15/2002 3:02:35 PM	54155	176	3.00	2.99	2.76	0.44144
3/15/2002 3:02:37 PM	54157	178	3.01	3.00	2.75	0.43955
3/15/2002 3:02:40 PM	54160	181	3.03	3.01	2.74	0.43702
3/15/2002 3:02:42 PM	54162	183	3.04	3.03	2.72	0.43511
3/15/2002 3:02:44 PM	54164	185	3.05	3.04	2.71	0.43319
3/15/2002 3:02:46 PM	54166	187	3.07	3.05	2.70	0.43126
3/15/2002 3:02:49 PM	54169	190	3.08	3.07	2.68	0.42868
3/15/2002 3:02:51 PM	54171	192	3.09	3.08	2.67	0.42706
3/15/2002 3:02:53 PM	54173	194	3.10	3.09	2.66	0.42527
3/15/2002 3:02:55 PM	54175	196	3.12	3.10	2.65	0.42282
3/15/2002 3:02:58 PM	54178	199	3.13	3.12	2.63	0.42051
3/15/2002 3:03:01 PM	54181	202	3.15	3.13	2.62	0.41787
3/15/2002 3:03:03 PM	54183	204	3.16	3.14	2.61	0.41587
3/15/2002 3:03:05 PM	54185	206	3.17	3.15	2.60	0.41420
3/15/2002 3:03:07 PM	54187	208	3.18	3.17	2.58	0.41236
3/15/2002 3:03:10 PM	54190	211	3.19	3.18	2.57	0.41000
3/15/2002 3:03:12 PM	54192	213	3.21	3.19	2.56	0.40797
3/15/2002 3:03:14 PM	54194	215	3.22	3.20	2.55	0.40592
3/15/2002 3:03:16 PM	54196	217	3.23	3.22	2.53	0.40387
3/15/2002 3:03:19 PM	54199	220	3.24	3.23	2.52	0.40181
3/15/2002 3:03:22 PM	54202	223	3.26	3.24	2.51	0.39939
3/15/2002 3:03:24 PM	54204	225	3.27	3.25	2.50	0.39731
3/15/2002 3:03:26 PM	54206	227	3.28	3.26	2.49	0.39539
3/15/2002 3:03:28 PM	54208	229	3.29	3.27	2.48	0.39364
3/15/2002 3:03:30 PM	54210	231	3.30	3.29	2.46	0.39153
3/15/2002 3:03:34 PM	54214	235	3.32	3.30	2.45	0.38870
3/15/2002 3:03:36 PM	54216	237	3.33	3.32	2.43	0.38621
3/15/2002 3:03:38 PM	54218	239	3.34	3.33	2.42	0.38406
3/15/2002 3:03:41 PM	54221	242	3.36	3.34	2.41	0.38118
3/15/2002 3:03:43 PM	54223	244	3.37	3.36	2.39	0.37901
3/15/2002 3:03:45 PM	54225	246	3.39	3.37	2.38	0.37646
3/15/2002 3:03:47 PM	54227	248	3.40	3.38	2.37	0.37427
3/15/2002 3:03:49 PM	54229	250	3.41	3.39	2.36	0.37243
3/15/2002 3:03:51 PM	54231	252	3.42	3.41	2.34	0.36984
3/15/2002 3:03:53 PM	54233	254	3.44	3.42	2.33	0.36724
3/15/2002 3:03:55 PM	54235	256	3.45	3.43	2.32	0.36462
3/15/2002 3:03:57 PM	54237	258	3.47	3.45	2.30	0.36161
3/15/2002 3:03:58 PM	54238	259	3.48	3.46	2.29	0.35972
3/15/2002 3:03:59 PM	54239	260	3.49	3.47	2.28	0.35705
3/15/2002 3:04:00 PM	54240	261	3.50	3.49	2.26	0.35476
3/15/2002 3:04:01 PM	54241	262	3.52	3.50	2.25	0.35206
3/15/2002 3:04:02 PM	54242	263	3.53	3.52	2.23	0.34896
3/15/2002 3:04:03 PM	54243	264	3.55	3.53	2.22	0.34604
3/15/2002 3:04:04 PM	54244	265	3.56	3.55	2.20	0.34289
3/15/2002 3:04:05 PM	54245	266	3.58	3.56	2.19	0.33953
3/15/2002 3:04:06 PM	54246	267	3.60	3.58	2.17	0.33594
3/15/2002 3:04:07 PM	54247	268	3.61	3.60	2.15	0.33252
3/15/2002 3:04:08 PM	54248	269	3.63	3.62	2.13	0.32927

Table B-12. Slug test on MW-9RR

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:04:09 PM	54249	270	3.65	3.63	2.12	0.32580
3/15/2002 3:04:10 PM	54250	271	3.66	3.65	2.10	0.32251
3/15/2002 3:04:11 PM	54251	272	3.68	3.67	2.08	0.31898
3/15/2002 3:04:12 PM	54252	273	3.69	3.68	2.07	0.31605
3/15/2002 3:04:13 PM	54253	274	3.71	3.70	2.05	0.31268
3/15/2002 3:04:14 PM	54254	275	3.73	3.71	2.04	0.30950
3/15/2002 3:04:15 PM	54255	276	3.74	3.73	2.02	0.30608
3/15/2002 3:04:16 PM	54256	277	3.76	3.74	2.01	0.30306
3/15/2002 3:04:17 PM	54257	278	3.77	3.75	2.00	0.30003
3/15/2002 3:04:18 PM	54258	279	3.78	3.77	1.98	0.29741
3/15/2002 3:04:19 PM	54259	280	3.80	3.78	1.97	0.29433
3/15/2002 3:04:20 PM	54260	281	3.81	3.79	1.96	0.29168
3/15/2002 3:04:21 PM	54261	282	3.82	3.80	1.95	0.28901
3/15/2002 3:04:22 PM	54262	283	3.83	3.82	1.93	0.28632
3/15/2002 3:04:24 PM	54264	285	3.85	3.84	1.91	0.28158
3/15/2002 3:04:26 PM	54266	287	3.87	3.86	1.89	0.27678
3/15/2002 3:04:28 PM	54268	289	3.89	3.88	1.87	0.27240
3/15/2002 3:04:30 PM	54270	291	3.91	3.89	1.86	0.26867
3/15/2002 3:04:31 PM	54271	292	3.92	3.90	1.85	0.26632
3/15/2002 3:04:33 PM	54273	294	3.93	3.92	1.83	0.26349
3/15/2002 3:04:36 PM	54276	297	3.95	3.93	1.82	0.25969
3/15/2002 3:04:38 PM	54278	299	3.96	3.94	1.81	0.25681
3/15/2002 3:04:40 PM	54280	301	3.97	3.96	1.79	0.25343
3/15/2002 3:04:43 PM	54283	304	3.99	3.97	1.78	0.25003
3/15/2002 3:04:46 PM	54286	307	4.00	3.99	1.76	0.24659
3/15/2002 3:04:49 PM	54289	310	4.01	4.00	1.75	0.24363
3/15/2002 3:04:52 PM	54292	313	4.02	4.01	1.74	0.24065
3/15/2002 3:04:56 PM	54296	317	4.04	4.02	1.73	0.23764
3/15/2002 3:04:59 PM	54299	320	4.05	4.03	1.72	0.23487
3/15/2002 3:05:02 PM	54302	323	4.06	4.04	1.71	0.23182
3/15/2002 3:05:06 PM	54306	327	4.07	4.06	1.69	0.22876
3/15/2002 3:05:10 PM	54310	331	4.08	4.07	1.68	0.22567
3/15/2002 3:05:14 PM	54314	335	4.09	4.08	1.67	0.22282
3/15/2002 3:05:19 PM	54319	340	4.11	4.09	1.66	0.21890
3/15/2002 3:05:23 PM	54323	344	4.12	4.11	1.64	0.21521
3/15/2002 3:05:28 PM	54328	349	4.14	4.12	1.63	0.21202
3/15/2002 3:05:31 PM	54331	352	4.15	4.13	1.62	0.20908
3/15/2002 3:05:35 PM	54335	356	4.16	4.14	1.61	0.20585
3/15/2002 3:05:40 PM	54340	361	4.17	4.16	1.59	0.20259
3/15/2002 3:05:44 PM	54344	365	4.18	4.17	1.58	0.19931
3/15/2002 3:05:49 PM	54349	370	4.20	4.18	1.57	0.19545
3/15/2002 3:05:54 PM	54354	375	4.21	4.19	1.56	0.19212
3/15/2002 3:05:58 PM	54358	379	4.22	4.21	1.54	0.18763
3/15/2002 3:06:04 PM	54364	385	4.24	4.22	1.53	0.18423
3/15/2002 3:06:08 PM	54368	389	4.25	4.24	1.51	0.18024
3/15/2002 3:06:13 PM	54373	394	4.26	4.25	1.50	0.17620
3/15/2002 3:06:17 PM	54377	398	4.28	4.26	1.49	0.17272
3/15/2002 3:06:22 PM	54382	403	4.29	4.28	1.47	0.16861
3/15/2002 3:06:26 PM	54386	407	4.30	4.29	1.46	0.16506
3/15/2002 3:06:30 PM	54390	411	4.31	4.30	1.45	0.16178
3/15/2002 3:06:34 PM	54394	415	4.33	4.31	1.44	0.15818
3/15/2002 3:06:38 PM	54398	419	4.34	4.32	1.43	0.15454

Table B-12. Slug test on MW-9RR

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Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:06:43 PM	54403	424	4.35	4.34	1.41	0.15026
3/15/2002 3:06:48 PM	54408	429	4.36	4.35	1.40	0.14656
3/15/2002 3:06:52 PM	54412	433	4.38	4.36	1.39	0.14282
3/15/2002 3:06:57 PM	54417	438	4.39	4.37	1.38	0.13842
3/15/2002 3:07:03 PM	54423	444	4.40	4.39	1.36	0.13398
3/15/2002 3:07:08 PM	54428	449	4.42	4.40	1.35	0.12949
3/15/2002 3:07:13 PM	54433	454	4.43	4.41	1.34	0.12561
3/15/2002 3:07:19 PM	54439	460	4.44	4.43	1.32	0.12169
3/15/2002 3:07:25 PM	54445	466	4.46	4.44	1.31	0.11640
3/15/2002 3:07:31 PM	54451	472	4.47	4.45	1.30	0.11240
3/15/2002 3:07:37 PM	54457	478	4.48	4.47	1.28	0.10768
3/15/2002 3:07:43 PM	54463	484	4.50	4.48	1.27	0.10359
3/15/2002 3:07:48 PM	54468	489	4.51	4.49	1.26	0.09981
3/15/2002 3:07:54 PM	54474	495	4.52	4.50	1.25	0.09565
3/15/2002 3:08:01 PM	54481	502	4.53	4.52	1.23	0.09075
3/15/2002 3:08:05 PM	54485	506	4.54	4.53	1.22	0.08650
3/15/2002 3:08:10 PM	54490	511	4.55	4.54	1.21	0.08292
3/15/2002 3:08:16 PM	54496	517	4.57	4.55	1.20	0.07896
3/15/2002 3:08:20 PM	54500	521	4.58	4.56	1.19	0.07386
3/15/2002 3:08:25 PM	54505	526	4.59	4.58	1.17	0.06944
3/15/2002 3:08:30 PM	54510	531	4.61	4.59	1.16	0.06423
3/15/2002 3:08:37 PM	54517	538	4.62	4.60	1.15	0.05895
3/15/2002 3:08:43 PM	54523	544	4.63	4.62	1.13	0.05361
3/15/2002 3:08:50 PM	54530	551	4.65	4.63	1.12	0.04781
3/15/2002 3:08:56 PM	54536	557	4.66	4.64	1.11	0.04351
3/15/2002 3:09:02 PM	54542	563	4.67	4.66	1.09	0.03877
3/15/2002 3:09:10 PM	54550	571	4.68	4.67	1.08	0.03398
3/15/2002 3:09:16 PM	54556	577	4.70	4.68	1.07	0.02913
3/15/2002 3:09:23 PM	54563	584	4.71	4.69	1.06	0.02464
3/15/2002 3:09:29 PM	54569	590	4.72	4.70	1.05	0.01969
3/15/2002 3:09:36 PM	54576	597	4.73	4.72	1.03	0.01468
3/15/2002 3:09:42 PM	54582	603	4.74	4.73	1.02	0.00961
3/15/2002 3:09:49 PM	54589	610	4.75	4.74	1.01	0.00449
3/15/2002 3:09:54 PM	54594	615	4.77	4.75	1.00	-0.00027
3/15/2002 3:10:01 PM	54601	622	4.78	4.76	0.99	-0.00463
3/15/2002 3:10:07 PM	54607	628	4.79	4.77	0.98	-0.00993
3/15/2002 3:10:14 PM	54614	635	4.80	4.78	0.97	-0.01485
3/15/2002 3:10:23 PM	54623	644	4.81	4.80	0.95	-0.02028
3/15/2002 3:10:29 PM	54629	650	4.82	4.81	0.94	-0.02577
3/15/2002 3:10:37 PM	54637	658	4.83	4.82	0.93	-0.03087
3/15/2002 3:10:44 PM	54644	665	4.85	4.83	0.92	-0.03650
3/15/2002 3:10:51 PM	54651	672	4.86	4.84	0.91	-0.04125
3/15/2002 3:10:57 PM	54657	678	4.87	4.85	0.90	-0.04654
3/15/2002 3:11:03 PM	54663	684	4.88	4.86	0.89	-0.05140
3/15/2002 3:11:13 PM	54673	694	4.89	4.87	0.88	-0.05731
3/15/2002 3:11:21 PM	54681	702	4.90	4.88	0.87	-0.06279
3/15/2002 3:11:27 PM	54687	708	4.91	4.90	0.85	-0.06886
3/15/2002 3:11:33 PM	54693	714	4.92	4.91	0.84	-0.07501
3/15/2002 3:11:39 PM	54699	720	4.94	4.92	0.83	-0.08124
3/15/2002 3:11:44 PM	54704	725	4.95	4.93	0.82	-0.08704
3/15/2002 3:11:50 PM	54710	731	4.96	4.94	0.81	-0.09238
3/15/2002 3:11:57 PM	54717	738	4.97	4.95	0.80	-0.09888

Table B-12. Slug test on MW-9RR

(*Continued from previous page*)

Time	Time (sec)	Elapsed Time (sec)	Logger Reading (ft)	Correct Reading (ft)	dh (ft)	Log of dh
3/15/2002 3:11:59 PM	54719	740	4.98	4.97	0.78	-0.10658
3/15/2002 3:12:04 PM	54724	745	4.99	4.98	0.77	-0.11273
3/15/2002 3:12:10 PM	54730	751	5.01	4.99	0.76	-0.12126
3/15/2002 3:12:14 PM	54734	755	5.02	5.00	0.75	-0.12762
3/15/2002 3:12:18 PM	54738	759	5.03	5.02	0.73	-0.13467
3/15/2002 3:12:21 PM	54741	762	5.04	5.03	0.72	-0.14063
3/15/2002 3:12:24 PM	54744	765	5.06	5.04	0.71	-0.14912
3/15/2002 3:12:28 PM	54748	769	5.07	5.05	0.70	-0.15653
3/15/2002 3:12:32 PM	54752	773	5.08	5.06	0.69	-0.16343
3/15/2002 3:12:35 PM	54755	776	5.09	5.08	0.67	-0.17109
3/15/2002 3:12:39 PM	54759	780	5.10	5.09	0.66	-0.17889
3/15/2002 3:12:44 PM	54764	785	5.12	5.10	0.65	-0.18817
3/15/2002 3:12:48 PM	54768	789	5.13	5.12	0.63	-0.19765
3/15/2002 3:12:56 PM	54776	797	5.14	5.13	0.62	-0.20594
3/15/2002 3:13:04 PM	54784	805	5.16	5.14	0.61	-0.21582
3/15/2002 3:13:14 PM	54794	815	5.17	5.15	0.60	-0.22447
3/15/2002 3:13:29 PM	54809	830	5.18	5.16	0.59	-0.23256
3/15/2002 3:13:44 PM	54824	845	5.19	5.18	0.57	-0.24155
3/15/2002 3:14:00 PM	54840	861	5.20	5.19	0.56	-0.25074
3/15/2002 3:14:23 PM	54863	884	5.22	5.20	0.55	-0.26012
3/15/2002 3:14:46 PM	54886	907	5.23	5.21	0.54	-0.26891
3/15/2002 3:15:21 PM	54921	942	5.24	5.22	0.53	-0.27870
3/15/2002 3:15:43 PM	54943	964	5.25	5.24	0.51	-0.28871
3/15/2002 3:16:03 PM	54963	984	5.26	5.25	0.50	-0.29896
3/15/2002 3:16:28 PM	54988	1009	5.27	5.26	0.49	-0.30858
3/15/2002 3:16:44 PM	55004	1025	5.28	5.27	0.48	-0.31751
3/15/2002 3:17:08 PM	55028	1049	5.30	5.28	0.47	-0.32847
3/15/2002 3:17:27 PM	55047	1068	5.31	5.29	0.46	-0.33877
3/15/2002 3:17:45 PM	55065	1086	5.32	5.30	0.45	-0.35029
3/15/2002 3:18:03 PM	55083	1104	5.33	5.31	0.44	-0.36013
3/15/2002 3:18:28 PM	55108	1129	5.34	5.32	0.43	-0.37122
3/15/2002 3:18:51 PM	55131	1152	5.35	5.34	0.41	-0.38365
3/15/2002 3:19:00 PM	55140	1161	5.36	5.35	0.40	-0.39644
3/15/2002 3:19:36 PM	55176	1197	5.38	5.36	0.39	-0.40962
3/15/2002 3:19:51 PM	55191	1212	5.39	5.37	0.38	-0.42322
3/15/2002 3:20:16 PM	55216	1237	5.40	5.38	0.37	-0.43606
3/15/2002 3:20:38 PM	55238	1259	5.41	5.39	0.36	-0.44808
3/15/2002 3:21:04 PM	55264	1285	5.42	5.40	0.35	-0.46170
3/15/2002 3:21:24 PM	55284	1305	5.43	5.41	0.34	-0.47187

Table B-12. Slug test on MW-9RR

(Continued from previous page)

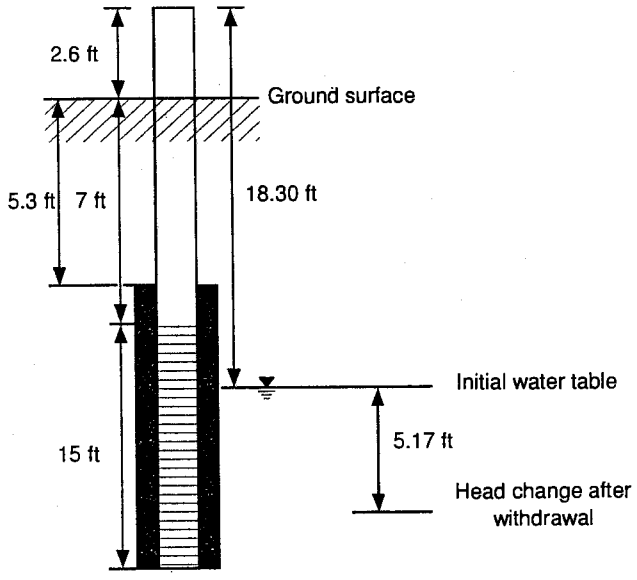
NOTES

1. Pump method was used.
2. Initial water table was below both the top of screen and the top of sand pack column. Adjusted radius of well casing was therefore used as r_c.
3. Values of dimensionless parameters A and B are taken from **Figure B-10.**

Slug Test by Bouwer and Rice

Initial depth to water table from top of pipe:	18.30	ft
Initial Head Change:	5.17	ft
Total well length:	24.6	ft
Radius of well casing	0.0833	ft
Assumed porosity of sand/gravel pack:	30%	
Adjusted radius of well casing (r_c):	0.2061	
Radius of gravel pack (r_w):	0.3542	ft
Length of open section (L_e):	15	ft
A (dimensionless):	2.81	
B (dimensionless):	0.46	
Drawdown at time = 0 (y_0):	1.72	ft
Drawdown at time = t (y_t):	0.83	ft
Elapsed Time between y_0 and y_t (t):	400	sec
Initial water column in well (L_w):	6.30	ft
$\ln(R_e/r_w)$ =	1.95	
K =	5.02E-06	ft/sec
	1.53E-04	
	158.41	ft/yr

Schematic Diagram of Field Slug Test *



* NOTE: This diagram is not to scale.

Figure B-1. Bouwer & Rice curve, CD-1

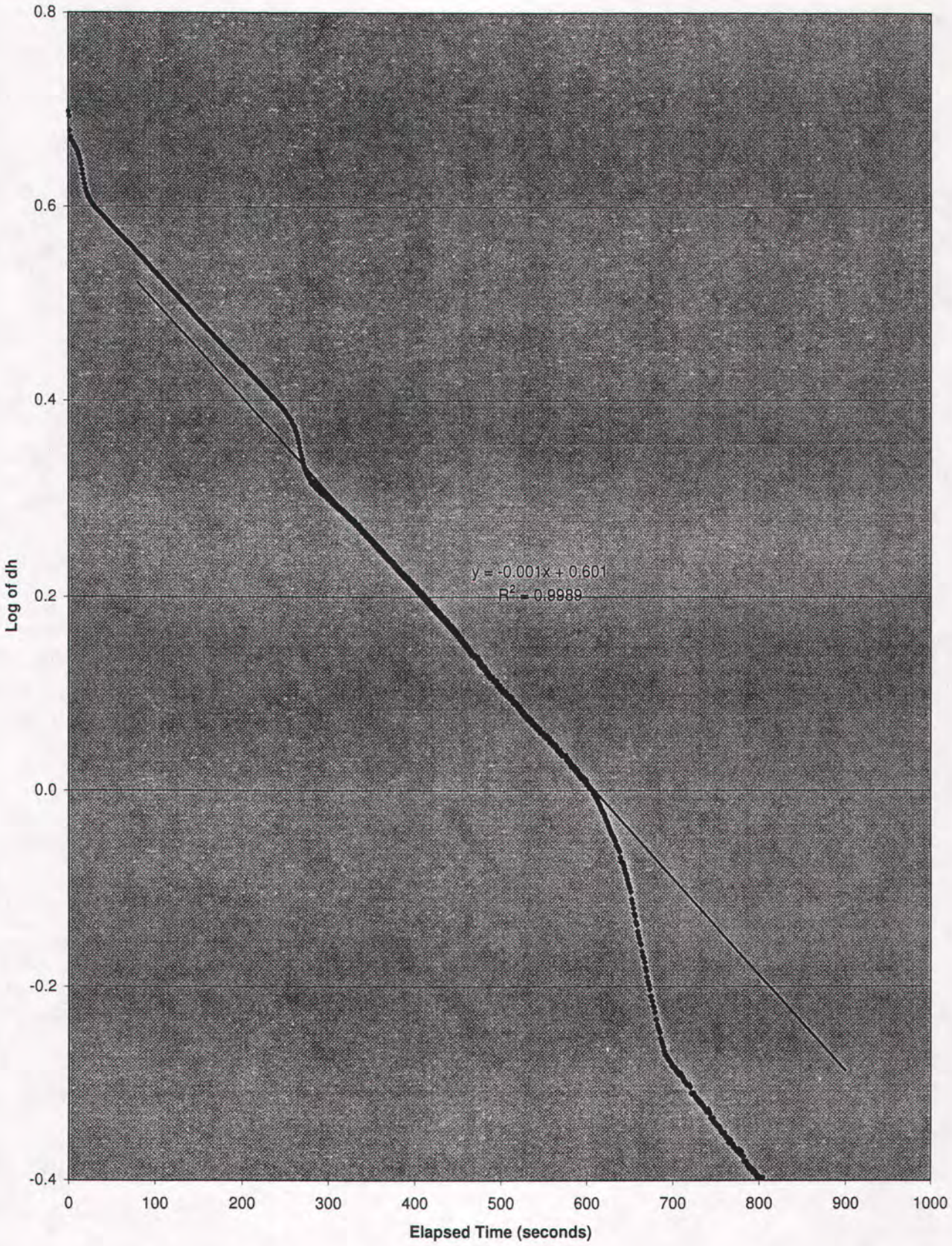


Figure B-2. Bouwer & Rice curve, CD-2

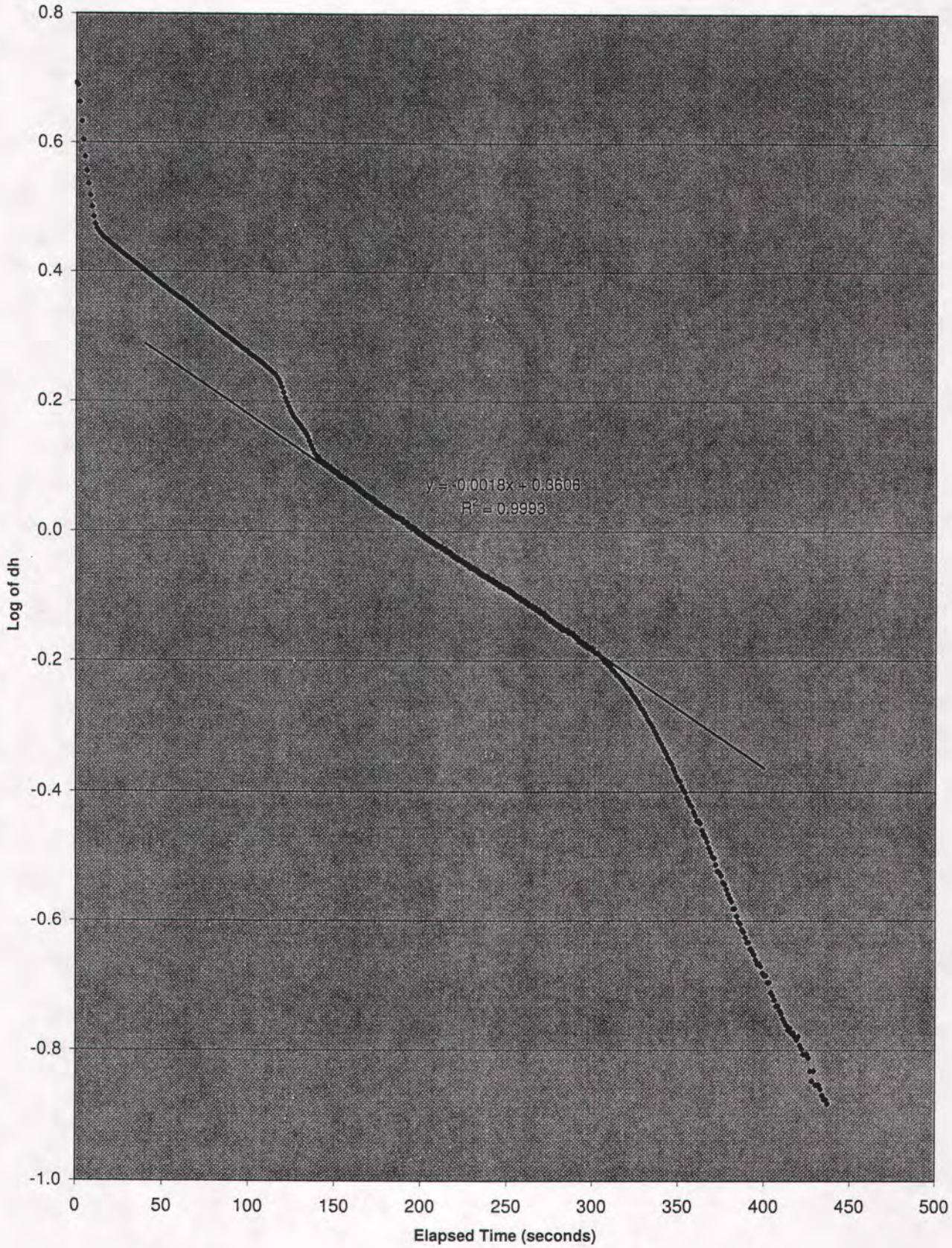


Figure B-3. Bouwer & Rice curve, CD-3

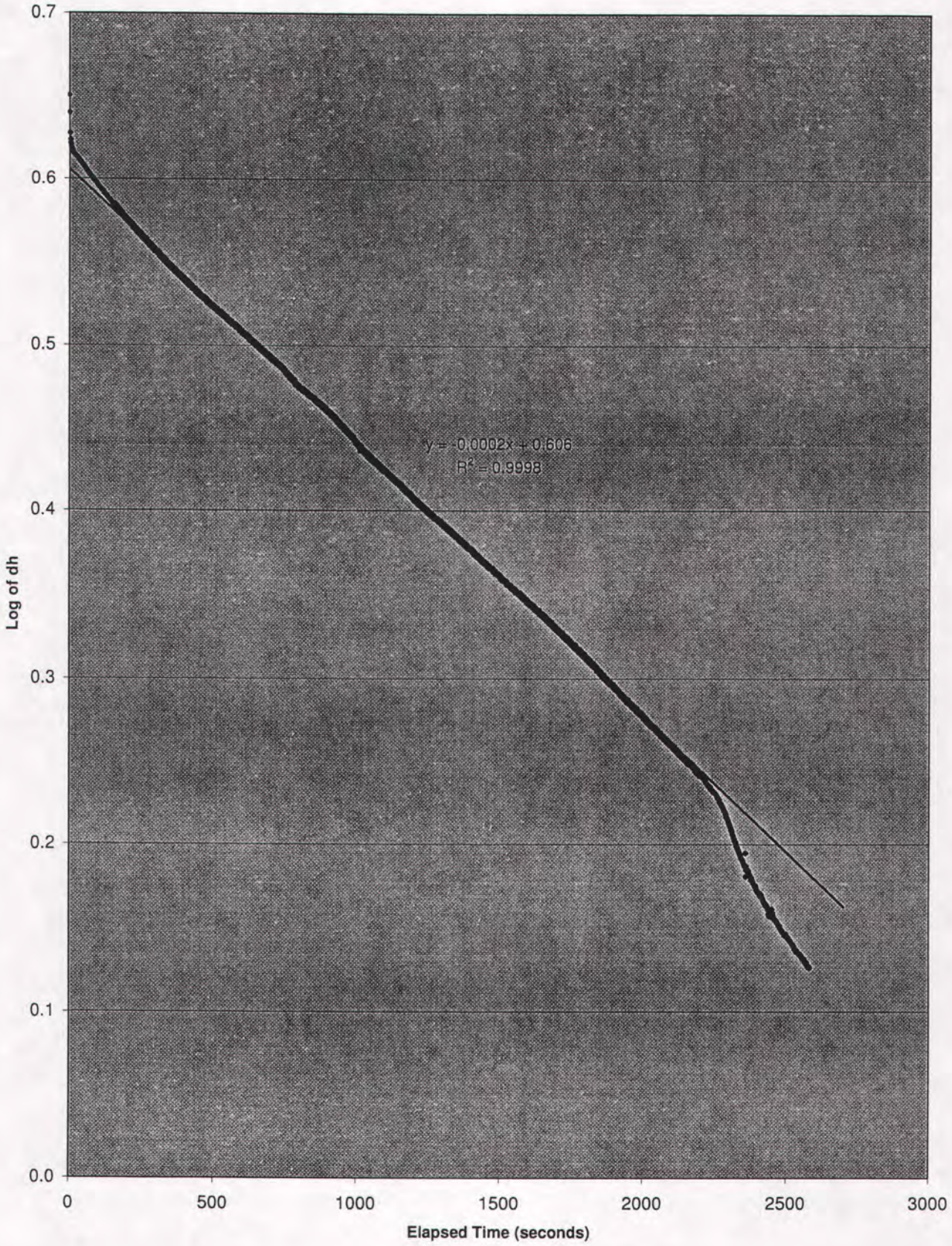


Figure B-4. Bouwer & Rice curve, CD-4

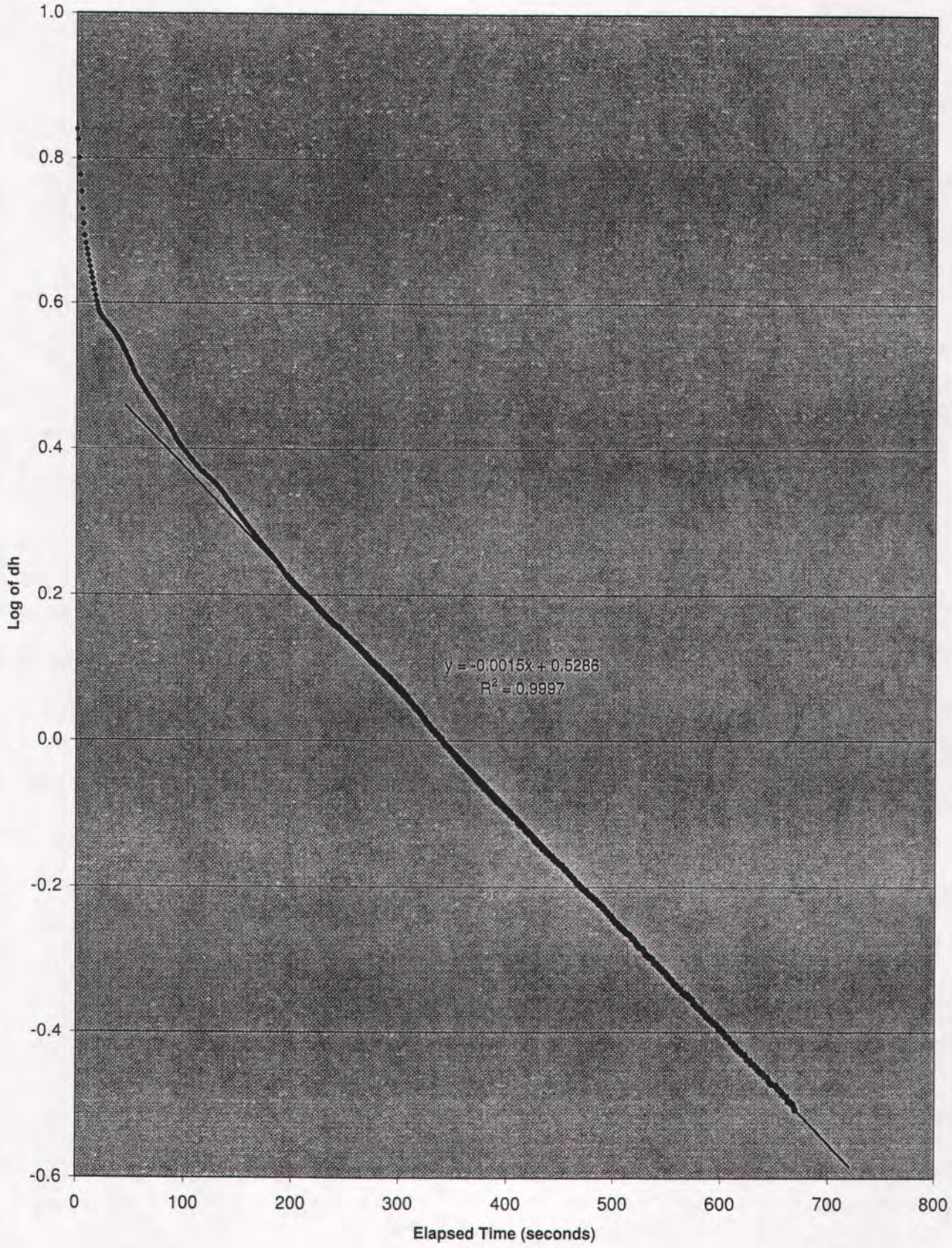


Figure B-5. Bouwer & Rice curve, CD-5

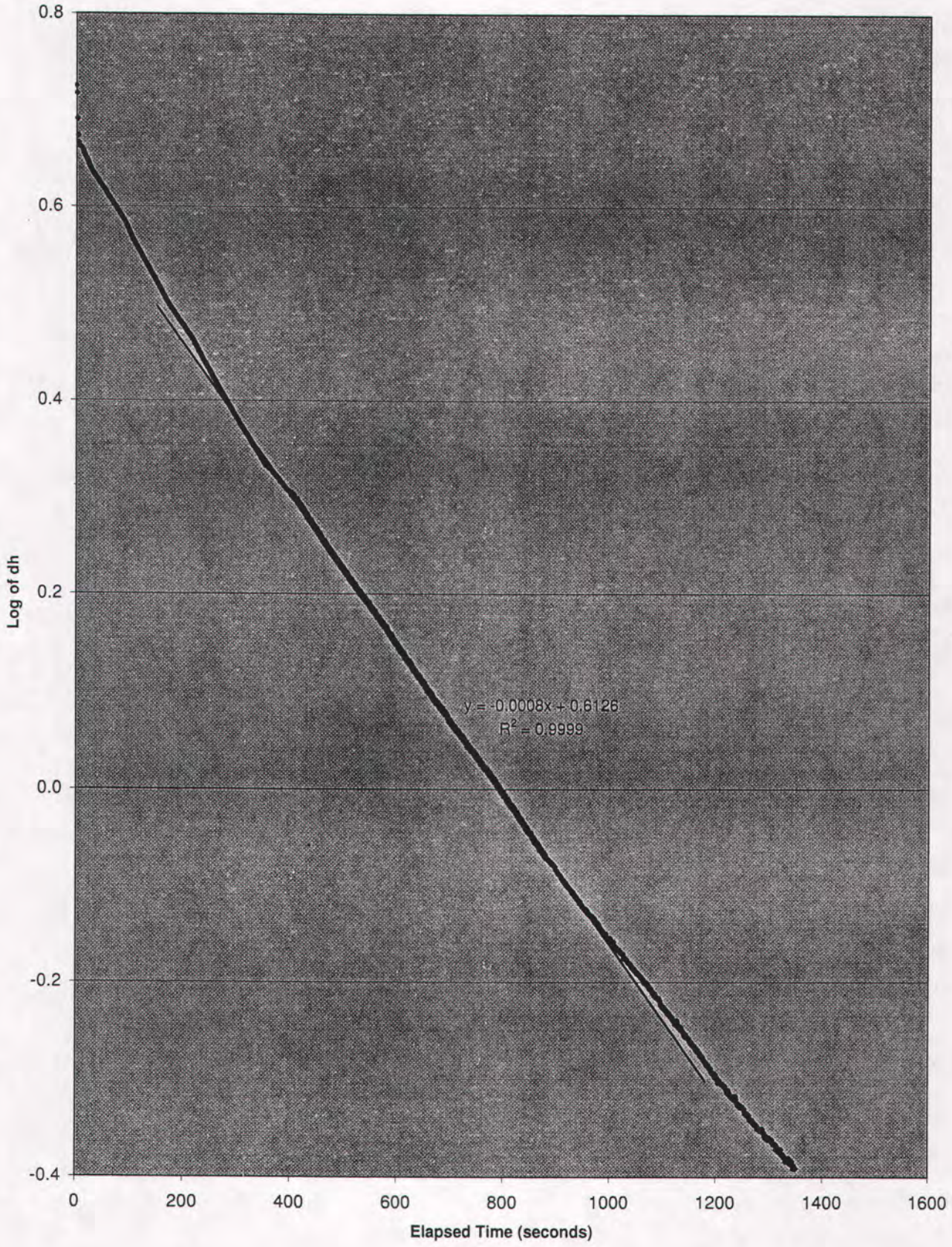


Figure B-6. Bouwer & Rice curve, CD-6

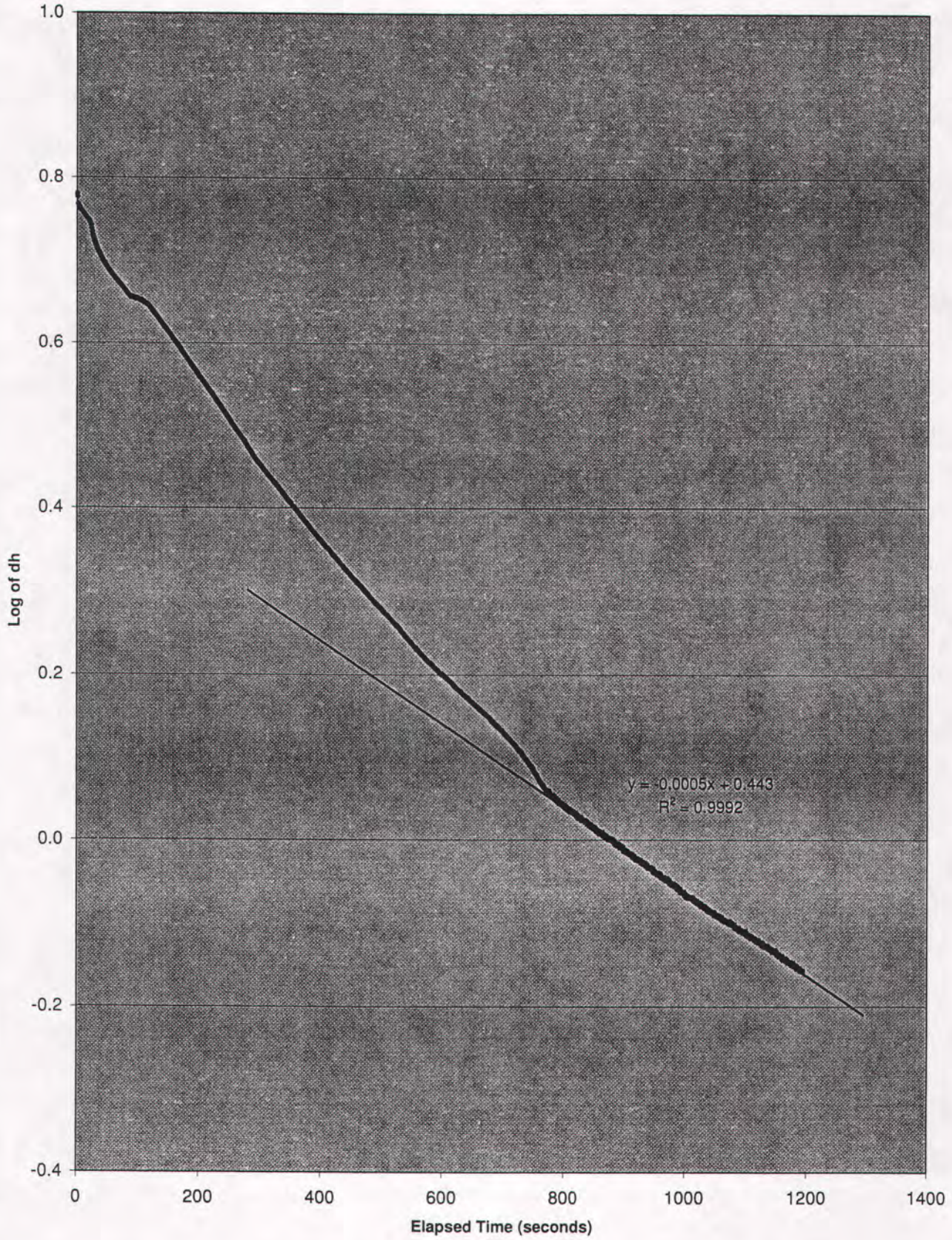


Figure B-7. Bouwer & Rice curve, CD-7

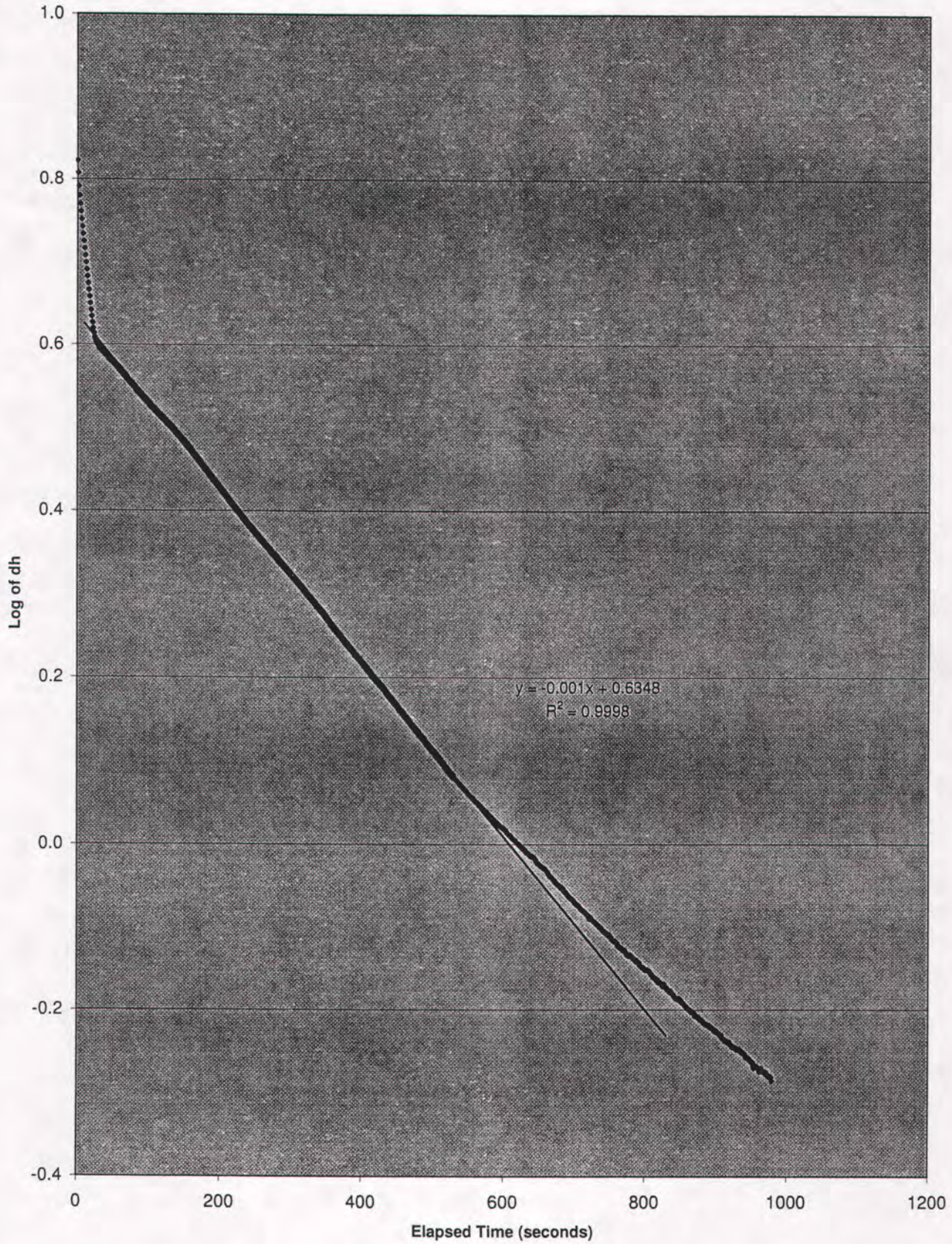


Figure B-8. Bouwer & Rice curve, MW-16

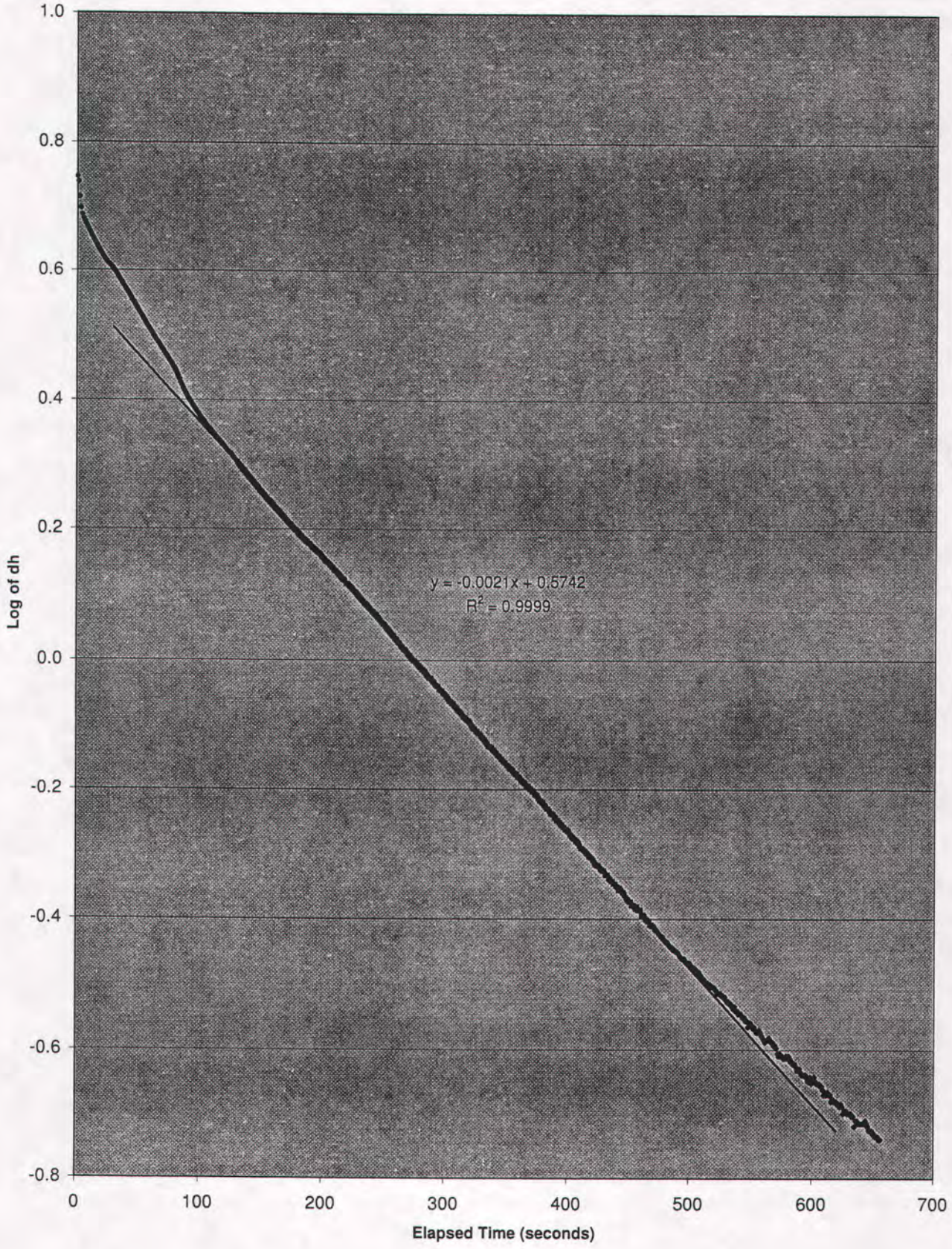
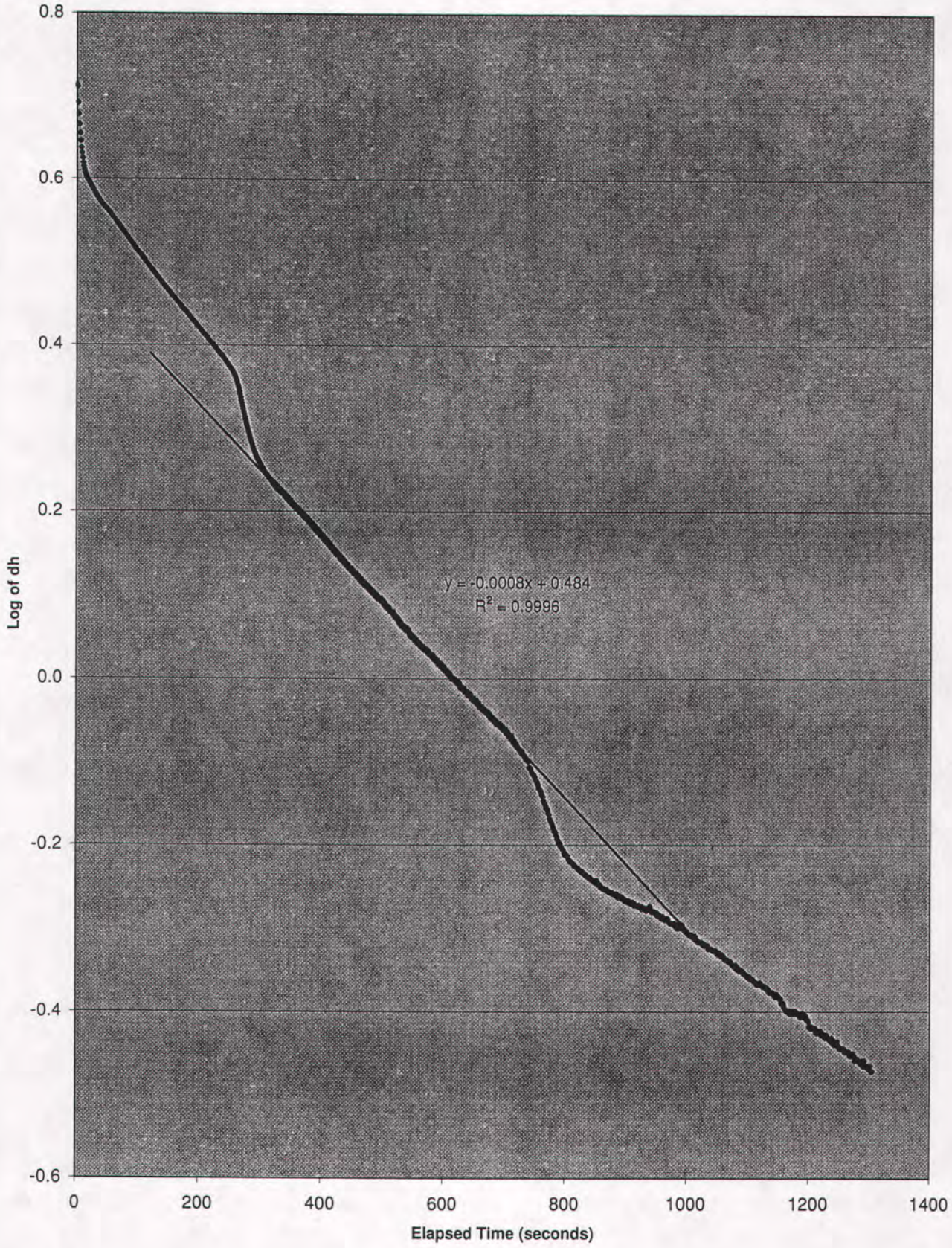


Figure B-9. Bouwer & Rice curve, MW-9RR



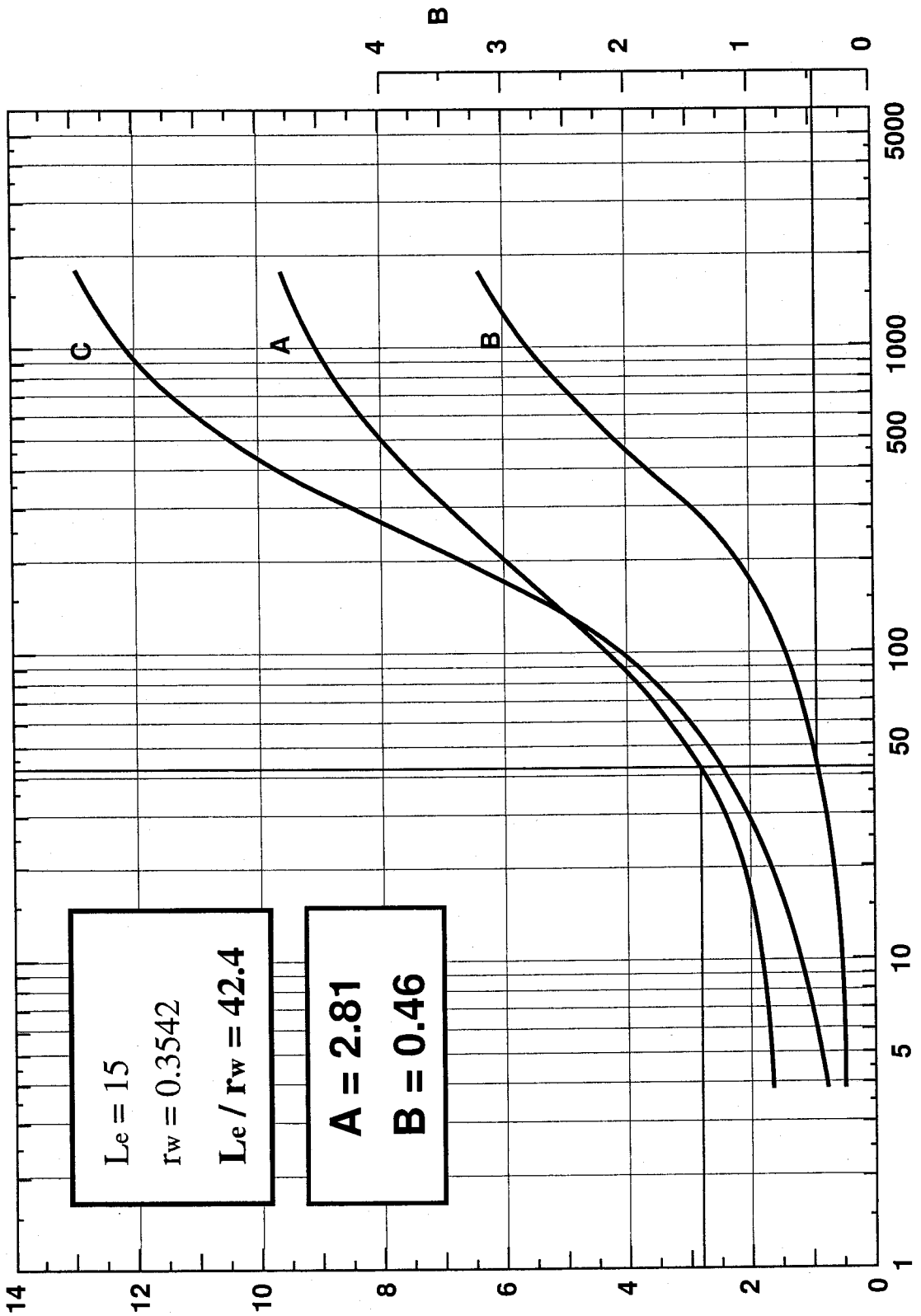


Figure B-10. Dimensionless parameters A, B, and C as a function of L_e/r_w ($L_e = 15$, $r_w = 0.3542$)

From ***Figure 2*** in *H. Bouwer, 1989, The Bouwer and Rice slug test - an update: Ground Water, v. 27, n. 3, p. 304-309.*

APPENDIX C

Table C-1. Summary of laboratory analyses of soil samples

Boring No.	Sample Depth (ft)	Unit Dry Weight (pcf)	Specific Gravity	Moisture Content (%)	Atterberg Limit (%)			USCS Symbol	Permeability (cm/sec)	Porosity (%)
					Liquid Limit	Plastic Limit	Plasticity			
CD-3	3.0 - 4.65	95.1	2.72	18.9	41	23	18	CL	6.70E-05	44
CD-5	17.0 - 18.85	80.1	2.73	26.5	45	37	8	ML	3.60E-05	53
CD-6	20.0 - 21.8	87.4	2.76	34.1	43	30	13	SM	3.60E-07	49
CD-7	7.0 - 9.15	84.2	2.79	31.0		Non-Plastic		ML	7.80E-05	52

Table C-2. Summary of effective porosity calculations

Boring No.	Sample Depth (ft)	%Sand	%Silt	%Clay	Texture	Effective Porosity (%)
CD-3	3.0 - 4.65	36.1	19.4	44.5	sandy clay	7
CD-5	17.0 - 18.85	53.8	35.9	10.3	silty sand	18.4
CD-6	20.0 - 21.8	53.1	33.8	13.1	silty sand	16.2
CD-7	7.0 - 9.15	53.9	41.7	4.4	silty sand	22.7

Table C-3. Published effective porosity values

Material	Effective Porosity		
	Maximum	Minimum	Average
Clay	5	0	2
Sandy clay	12	3	7
Silt	19	3	18
Fine sand	28	10	21
Medium sand	32	15	26
Coarse sand	35	20	27
Gravelly sand	35	20	25
Fine gravel	35	21	25
Medium gravel	26	13	23
Coarse gravel	26	12	22

NOTE

1. Results presented in Table C-1 are excerpted from the laboratory report submitted to MESCO by Geotechnics. Copies of the submitted report are enclosed in Appendix C.
2. The compositions of sand, silt and clay presented in Table C-2 are recalculated per definitions given in Johnson (1967),[12] which conforms to the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. This particle-size classification scheme is also used by the U.S. Geological Survey in its publications.[10][11]
3. Textures given in Table C-2 are determined via trilinear graph, and differ from those reported by the laboratory.
4. The effective porosity of 7% for the sample taken from CD-3 (Table C-2) was the average value for sand clay excerpted from Table C-3. The effective porosities for all the other samples were determined by using the trilinear graph (Figures C-1 through C-4).
5. Figures presented in Table C-3 are excerpted directly from Johnson (1967),[12] and are also given in Fetter (1994).[6]

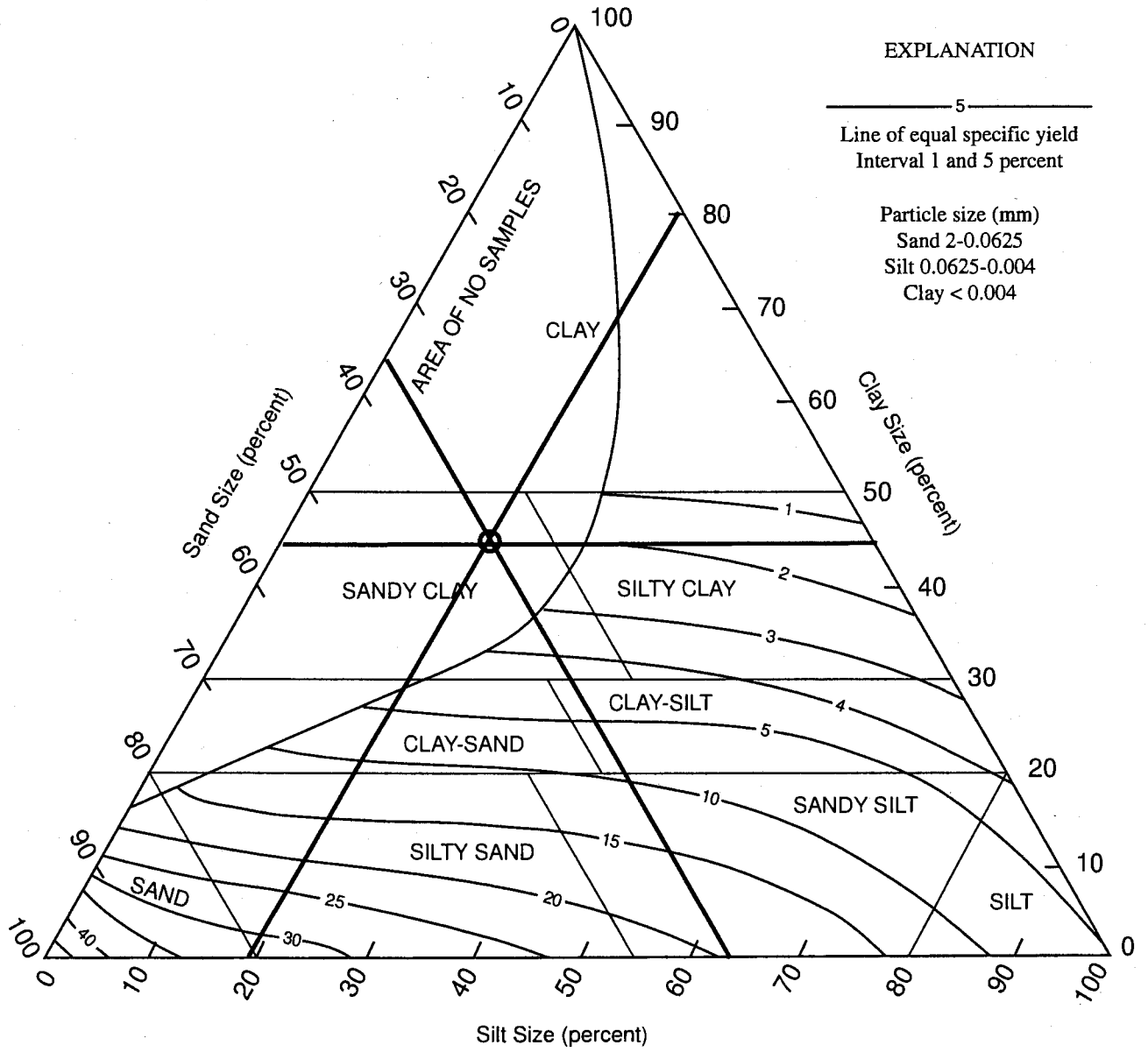
Table C-4. Porosity summary by soil texture

Boring No.	Sample Depth (ft)	Texture	Total Porosity (%)				Effective Porosity (%)			
			Individual	Average	S.D.	S.E.	Individual	Average	S.D.	S.E.
CD-3	3.0 - 4.65	sandy clay	44	44	-	-	7	7	-	-
CD-5	17.0 - 18.85	silty sand	53				18			
CD-6	20.0 - 21.8	silty sand	49	51	2	1	16	19	3	2
CD-7	7.0 - 9.15	silty sand	52				23			

NOTE

1. Values of the total and effective porosities are excerpted from Tables C-1 and C-2, respectively, and are grouped by soil texture (sandy clay and silty sand).
2. S.D. and S.E. stand for the standard deviation and the standard error of the samples, respectively.

Figure C-1. Trilinear graph of textural classification for determining effective porosity (CD-3)



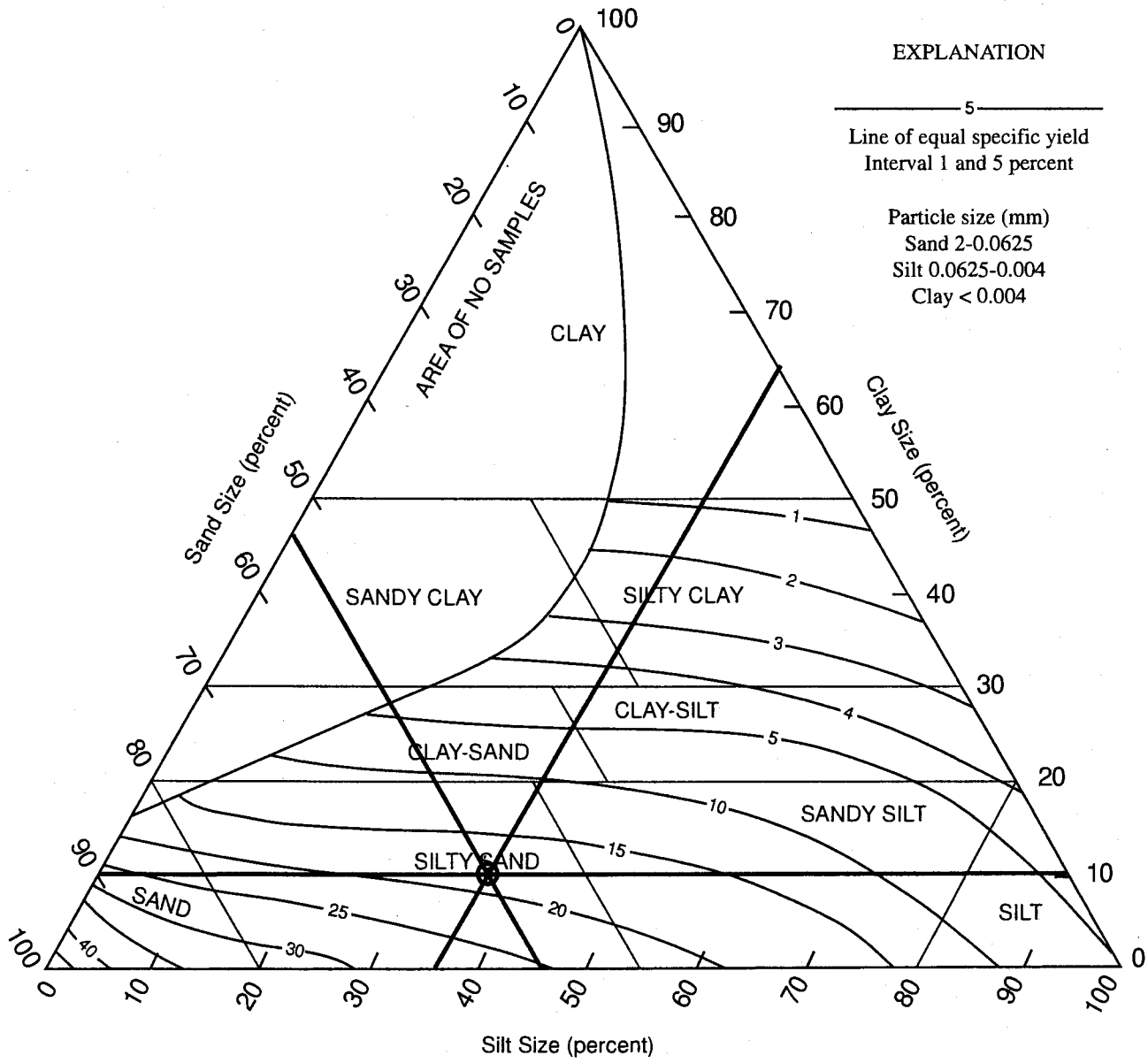
From **Figure 4.11** in *Fetter, C. W., 1994, Applied hydrogeology 3rd ed.: Prentice Hall, New Jersey, p. 93.*

CD-3 (6 - 7 ft)

%Sand = 36.1 %Silt = 19.4 %Clay = 44.5

n_e = N/A

Figure C-2. Trilinear graph of textural classification for determining effective porosity (CD-5)



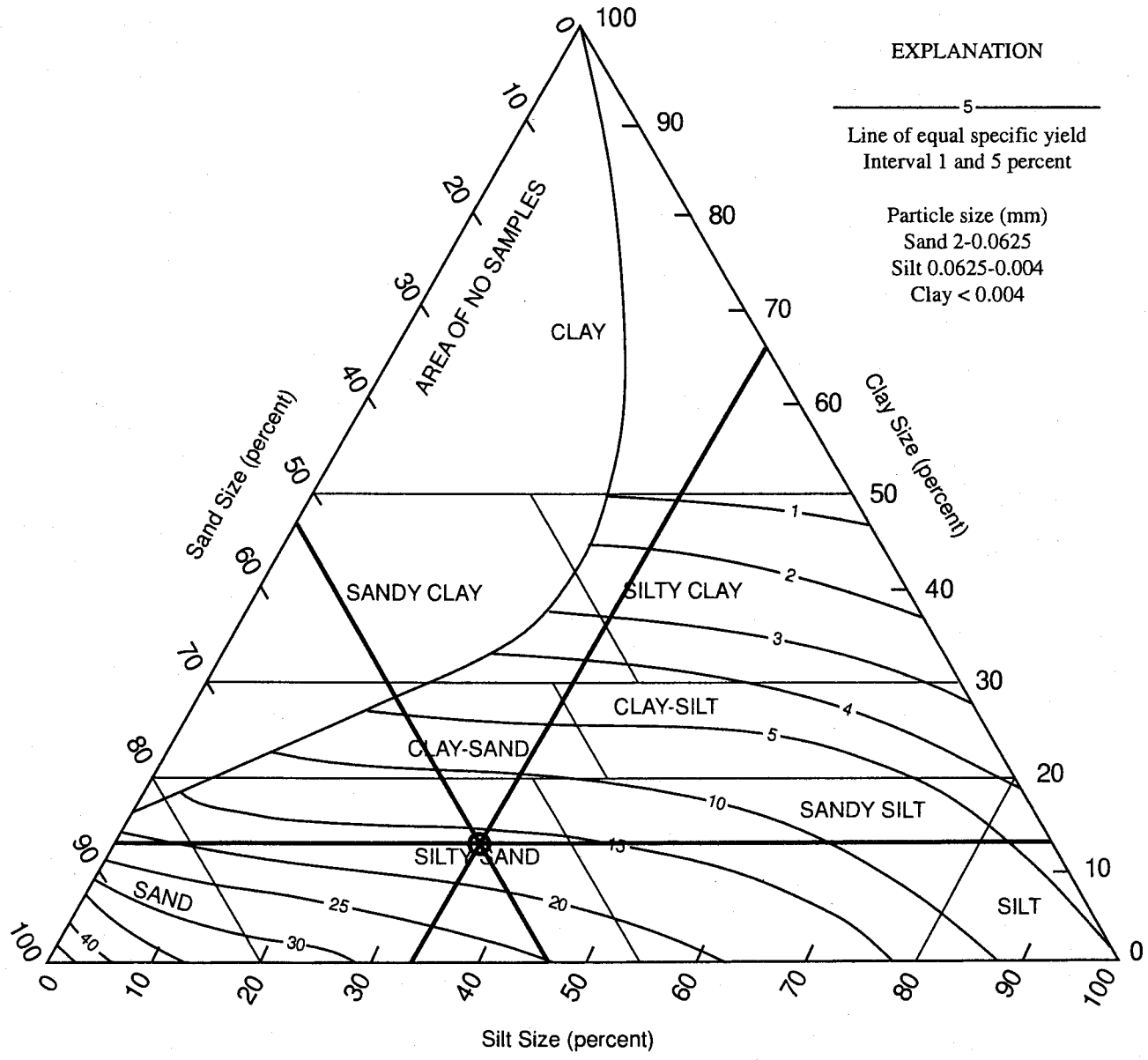
From **Figure 4.11** in *Fetter, C. W., 1994, Applied hydrogeology 3rd ed.: Prentice Hall, New Jersey, p. 93.*

CD-5 (17 - 18.85)

%Sand = 53.8 %Silt = 35.9 %Clay = 10.3

n_e = **18.4%**

Figure C-3. Trilinear graph of textural classification for determining effective porosity (CD-6)



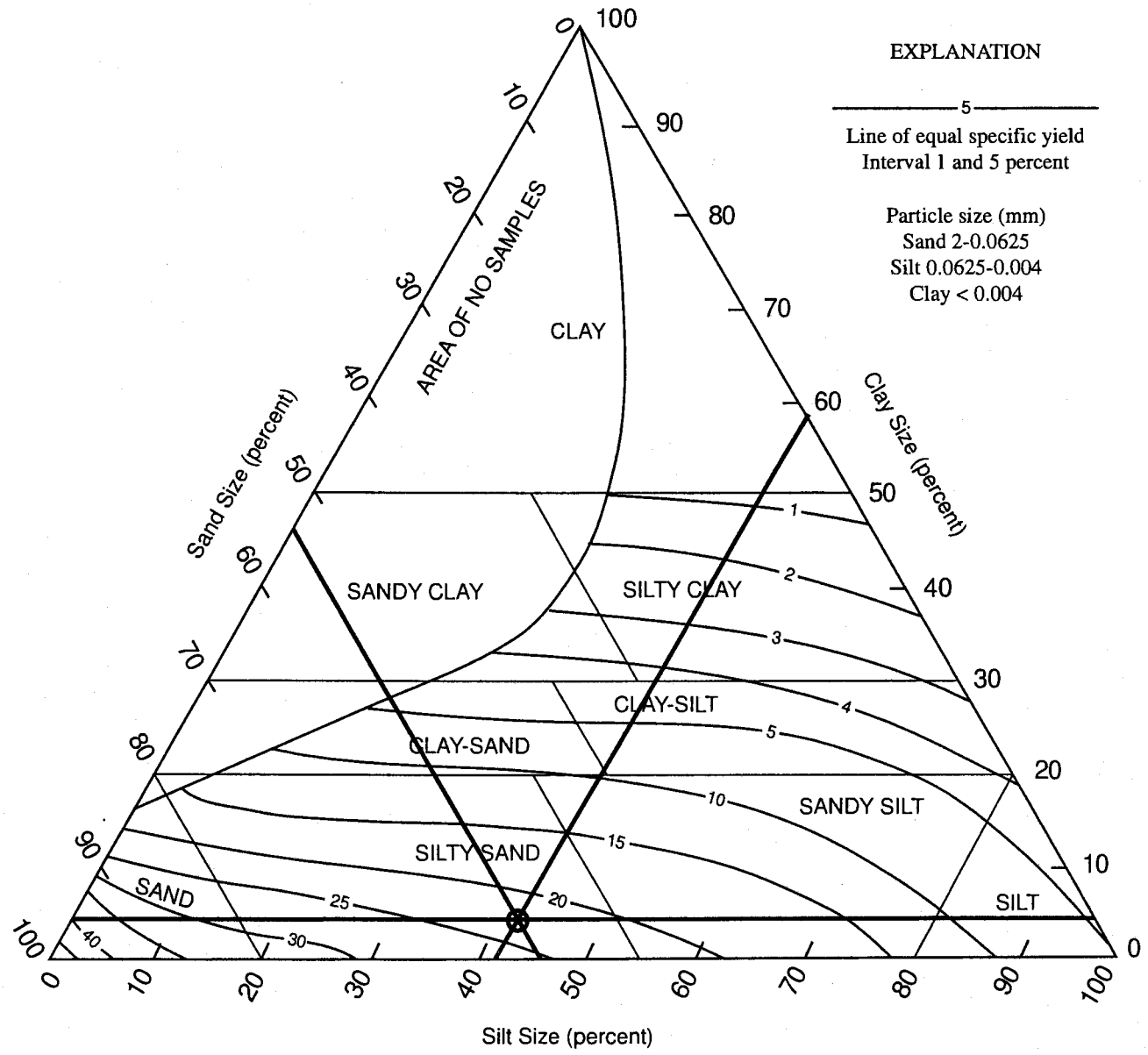
From **Figure 4.11** in *Fetter, C. W., 1994, Applied hydrogeology 3rd ed.: Prentice Hall, New Jersey, p. 93.*

CD-6 (20 - 21.8)

%Sand = 53.1 %Silt = 33.8 %Clay = 13.1

n_e = **16.2%**

Figure C-4. Trilinear graph of textural classification for determining effective porosity (CD-7)



From **Figure 4.11** in *Fetter, C. W., 1994, Applied hydrogeology 3rd ed.: Prentice Hall, New Jersey, p. 93.*

CD-7 (7 - 9.15)

%Sand = 53.9 %Silt = 41.7 %Clay = 4.4

n_e = 22.7%

Geotechnics

..... GEOTECHNICAL, GEOENVIRONMENTAL, AND GEOSYNTHETIC LABORATORIES

LABORATORY TEST REPORT

December 13, 2001

Project No. G01026.0

MUNICIPAL ENGINEERING
RECEIVED
DEC 17 2001
SERVICES COMPANY

Mr. C. Nallainthan
Municipal Engineering
P.O. Box 98
Garner, NC 27529

RE: Soils Testing – Iredell Co. C&D Landfill

Geotechnics No. R01034-01

Transmitted herein are the results of the soils testing performed for the above referenced project verified on the Project Verification Form, submitted November 29 2001. The testing was performed in accordance with the ASTM methods listed on the enclosed data sheets.

Disclaimer

The test results are believed to be representative of the samples submitted but are indicative only of the specimens which were evaluated. Geotechnics has no direct knowledge of the origin of the samples, implies no position with regard to the disposition of the test results, i.e. pass/fail, and makes no claims as to the suitability of the material for its intended use.

The test data and all associated project information provided shall be held in strict confidence and disclosed to other parties only with authorization of the Client and Geotechnics. The test data submitted herein is considered integral with this report and is not to be reproduced except in whole and only with the authorization of the Client and Geotechnics.

We are pleased to provide these testing services. Should you have any questions or if we may be of further assistance, please do not hesitate to contact our office.

Respectively submitted,

Dave A. Jenks
Laboratory Manager

3101 Stonybrook Drive • Suite 156 • Raleigh, NC 27604 • Phone (919) 876-0405 • Fax (919) 876-0460

Geotechnics

MOISTURE CONTENT

ASTM D 2216 (SOP-S1)

Client	MESCO
Client Reference	IREDELL CO. C&D LANDFILL
Project No.	R01034-01 (G01026.0)

Lab ID	.01	.02	.03	.04
Boring No.	CD-3	CD-5	CD-6	CD-7
Depth (ft)	3.0 - 4.65	17.0 - 18.85	20.0 - 21.8	7.0 - 9.15
Sample No.	NA	NA	NA	NA
Tare Number	SS-4	F-4	Y-5	Z-14
Wt. of Tare & WS (gm)	344.95	404.9	455.8	370.42
Wt. of Tare & DS (gm)	306.11	340.96	365.44	306.61
Wt. of Tare (gm)	100.41	99.89	100.14	100.61
Wt. of Water (gm)	38.84	63.94	90.36	63.81
Wt. of DS (gm)	205.7	241.07	265.3	206
Water Content (%)	**18.9**	**26.5**	**34.1**	**31.0**

Notes : *NA*

Tested By *DAJ* *Date* *11/30/01* *Checked By* *MPS* *Date* *12-13-01*

DCN: CT-S1 DATE 6-30-98 REVISION: 2

C:\Data Sheets\WATCONT.XLS]Sheet1

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Geotechnics

SPECIFIC GRAVITY

ASTM D 854-00 (SOP - S5)

Client	MESCO	Boring No.	CD-3
Client Reference	IREDELL CO. C&D LF	Depth (ft)	3.0 - 4.65
Project No.	R01034-01 (G01026-01)	Sample No.	NA
Lab ID	R01034-01.01	Visual Description	**REDDISH-BROWN SANDY LEAN CLAY** (Minus No.4 sieve material, airdried)

Replicate Number	**1**	**2**
Pycnometer ID	R 29	R 30
Weight of Pycnometer + Soil + Water (gm)	751.7	750.5
Temperature, T (°Celsius)	22.4	22.5
Weight of Pycnometer + Water (gm)	692.49	687.18
Tare Number	C-3	C-4
Weight of Tare + Dry Soil (gm)	317.85	326.28
Weight of Tare (gm)	224.26	226.08
Weight of Dry Soil (gm)	93.59	100.20
Specific Gravity of Soil @ T	2.722	2.717
Specific Gravity of Water @ T	0.9977	0.9977
Conversion Factor for Temperature T	0.9995	0.9995
Specific Gravity @ 20° Celsius	2.724	2.719

Average Specific Gravity @ 20° Celsius	2.72

Tested By DAJ *Date* 12/3/01 *Checked By* MBS *Date* 12-13-01

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Geotechnics

ATTERBERG LIMITS

ASTM D 4318-98 / AASHTO T89 (SOP - S4A)

Client	MESCO	Boring No.	CD-3
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.01	Soil Description	**REDDISH-BROWN LEAN CLAY**

Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description. (Minus No. 40 sieve material)

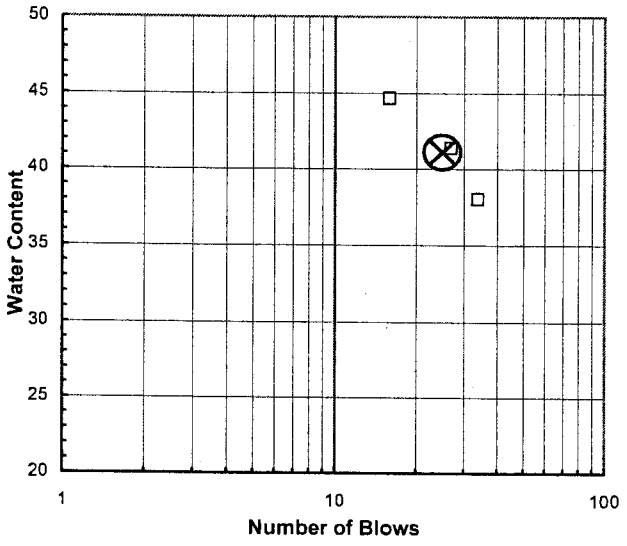
Liquid Limit Test	**1**	**2**	**3**	
				M
Tare Number	A-L	A-H	A-P	**U**
Wt. of Tare & WS (gm)	29.29	29.78	30.07	**L**
Wt. of Tare & DS (gm)	25.49	25.39	25.82	**T**
Wt. of Tare (gm)	15.48	15.55	15.54	**I**
Wt. of Water (gm)	3.8	4.4	4.3	**P**
Wt. of DS (gm)	10.0	9.8	10.3	**O**
				I
Moisture Content (%)	**38.0**	**44.6**	**41.3**	**N**
Number of Blows	**34**	**16**	**27**	**T**

Plastic Limit Test	**1**	**2**	**Range**
Tare Number	T	M	
Wt. of Tare & WS (gm)	23.57	22.64	
Wt. of Tare & DS (gm)	21.98	21.23	
Wt. of Tare (gm)	15.19	15.12	
Wt. of Water (gm)	1.6	1.4	
Wt. of DS (gm)	6.8	6.1	
Moisture Content (%)	**23.4**	**23.1**	**0.3**

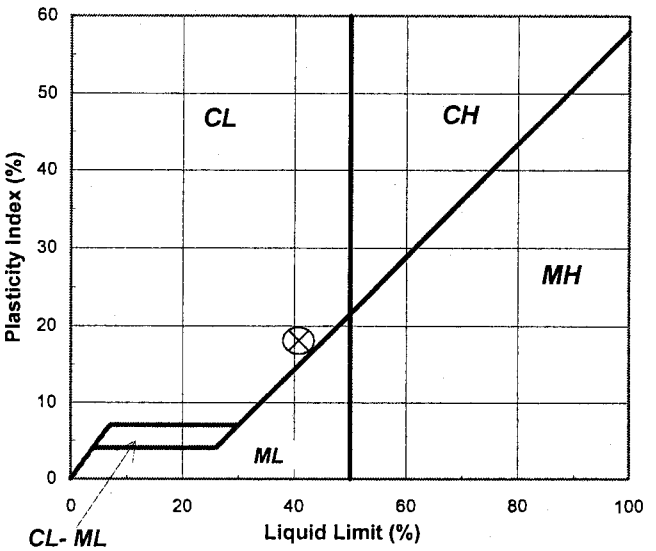
Note: The acceptable range of the two Moisture contents is ± 2.6

Test Results	
Liquid Limit (%)	**41**
Plastic Limit (%)	**23**
Plasticity Index (%)	**18**
USCS Symbol	**CL**

Flow Curve



Plasticity Chart



Tested By DAJ *Date* 12/12/01 *Checked By* MMS *Date* 12-13-01

page 1 of 1 **DCN:** CT-S4B **DATE:** 10/18/00 **REVISION:** 1

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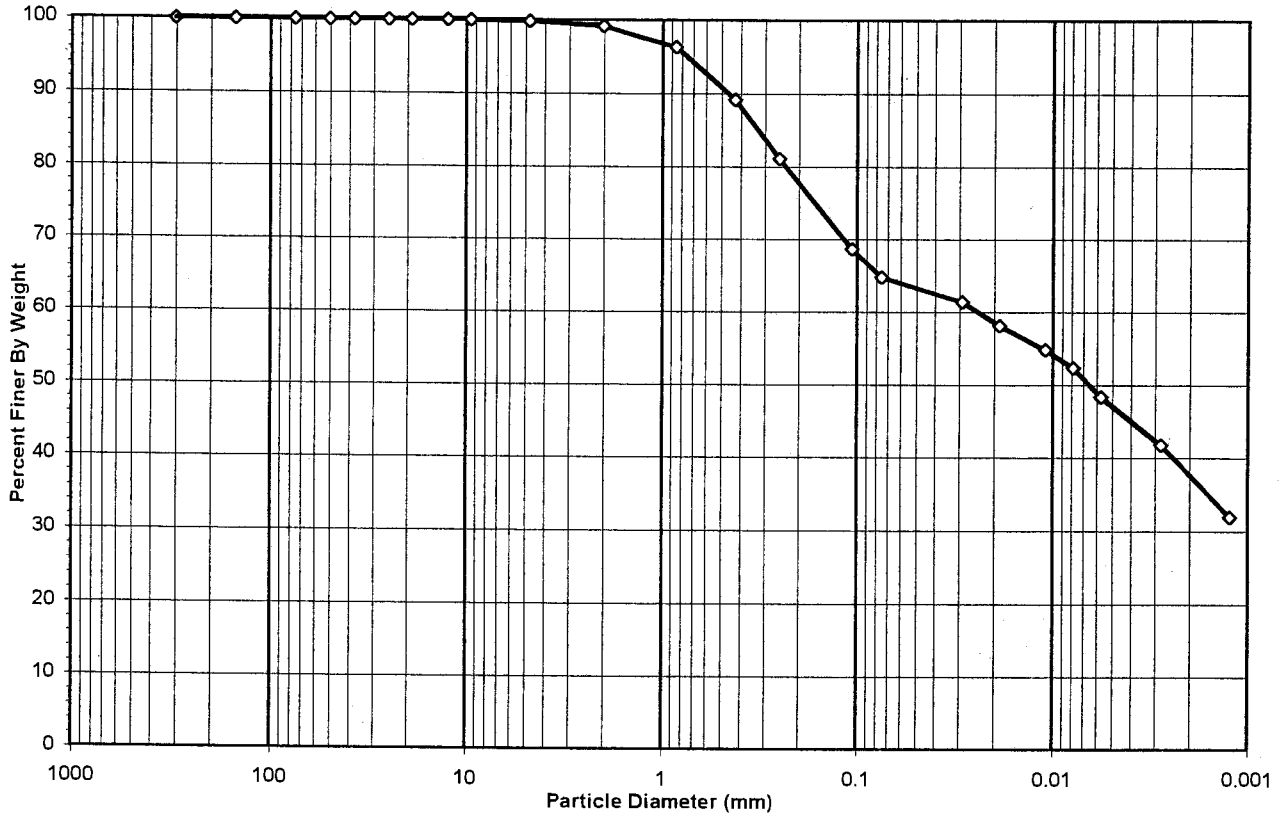
SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-3
Client Reference	IREDELL CO. C&C LANDFILL	Depth (ft)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.01	Soil Color	**REDDISH-BROWN**

	SIEVE ANALYSIS			HYDROMETER	
USCS	cobbles	gravel	sand	silt and clay fraction	
USDA	cobbles	gravel	sand	silt	clay

12" 6" 3" 3/4" 3/8" #4 #10 #20 #40 #140 #200



USCS Summary

Sieve Sizes (mm)		Percentage
Greater Than #4	*Gravel*	0.18
#4 To #200	*Sand*	35.05
Finer Than #200	*Silt & Clay*	64.76

USCS Symbol ***CL, TESTED***

USCS Classification *SANDY LEAN CLAY*

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

C:\2001 Projects\R01034\[R01034-01.01 Sieve.xls]Sheet1

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HYDROMETER ANALYSIS

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-3
Client Reference	IREDELL CO. C&C LANDFILL	Depth (ft)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.01	Soil Color	**REDDISH-BROWN**

Bulb Ser.# **667986**

Elapsed Time (min)		R Measured	Temp. (°C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	45.0	44.0	18.5	6.69	37.3	61.9	0.01361	0.0290	**61.4**
5		42.0	18.5	6.69	35.3	58.6	0.01361	0.0187	**58.1**
15		40.0	18.5	6.69	33.3	55.2	0.01361	0.0110	**54.8**
30		38.5	18.5	6.69	31.8	52.8	0.01361	0.0079	**52.3**
60		36.0	18.7	6.63	29.4	48.7	0.01358	0.0057	**48.3**
251		31.5	20.5	6.10	25.4	42.1	0.01329	0.0028	**41.8**
1440		26.0	19	6.54	19.5	32.3	0.01353	0.0012	**32.0**

Soil Specimen Data		**Other Corrections**	
Tare + Dry Material (gm)	59.46	a - Factor	0.986
Weight of Tare (gm)	0		
Weight of Deflocculant (gm)	5.0	Percent Finer than # 10	99.20
Weight of Dry Material (gm)	59.46		
		Specific Gravity	2.72 Measured

Note:

Tested By DAJ Date 12/4/01 Checked By MRS Date 12-13-01

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

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Geotechnics

WASH SIEVE ANALYSIS #10 SPLIT

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-3
Client Reference	IREDELL CO. C&C LANDFILL	Depth (ft)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.01	Soil Color	**REDDISH-BROWN**

Moisture Content/sieve +10 Material		Moisture Content for Hydrometer Portion	
Tare No.	G-3	Tare No.	B-1
Wgt.Tare + Wet Soil (gm)	610.00	Wgt.Tare + Wet Soil (gm)	241.02
Wgt.Tare + Dry Soil (gm)	533.90	Wgt.Tare + Dry Soil (gm)	237.64
Weight of Tare (gm)	155.83	Weight of Tare (gm)	100.24
Weight of Water (gm)	76.10	Weight of Water (gm)	3.38
Weight of Dry Soil (gm)	378.07	Weight of Dry Soil (gm)	137.40
Moisture Content (%)	**20.1**	**Moisture Content (%)**	**2.5**

Soil Specimen Data			
Wet Weight +#10 Material (gm)	454.17	Weight of the Dry Sample (gm)	437.53
Dry Weight +#10 Material(gm)	378.1	Weight of minus #200 material (gm)	38.82
Wet Weight Hydro. Material.(gm)	60.92	Weight of plus #200 material (gm)	398.71
Dry Weight Hydro. Material (gm)	59.46		
Total Dry Weight Sample (gm)	437.53	**J-FACTOR (%FINER THAN #10)**	**0.9920**

Sieve Size	Sieve Opening (mm)	Wgt.of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	Accumulated **Percent Finer (%)**
12"	300	0.00	0.00	0.00	100.00	**100.00**
6"	150	0.00	0.00	0.00	100.00	**100.00**
3"	75	0.00	0.00	0.00	100.00	**100.00**
2"	50	0.00	0.00	0.00	100.00	**100.00**
1 1/2"	37.5	0.00	0.00	0.00	100.00	**100.00**
1"	25.0	0.00	0.00	0.00	100.00	**100.00**
3/4"	19.0	0.00	0.00	0.00	100.00	**100.00**
1/2"	12.5	0.00	0.00	0.00	100.00	**100.00**
3/8"	9.50	0.00	0.00	0.00	100.00	**100.00**
#4	4.75	0.69	0.18	0.18	99.82	**99.82**
#10	2.00	2.33	0.62	0.80	99.20	**99.20**
#20	0.85	1.72	2.89	2.89	97.11	**96.33**
#40	0.425	4.30	7.23	10.12	89.88	**89.16**
#60	0.250	4.82	8.11	18.23	81.77	**81.12**
#140	0.106	7.47	12.56	30.80	69.20	**68.65**
#200	0.075	2.33	3.92	34.71	65.29	**64.76**
Pan	-	38.82	65.29	100.00	-	-

Notes :

Tested By DAJ Date 12/6/01 Checked By MHS Date 12-13-01

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

C:\2001 Projects\R01034\[R01034-01.01 Sieve.xls]Sheet1

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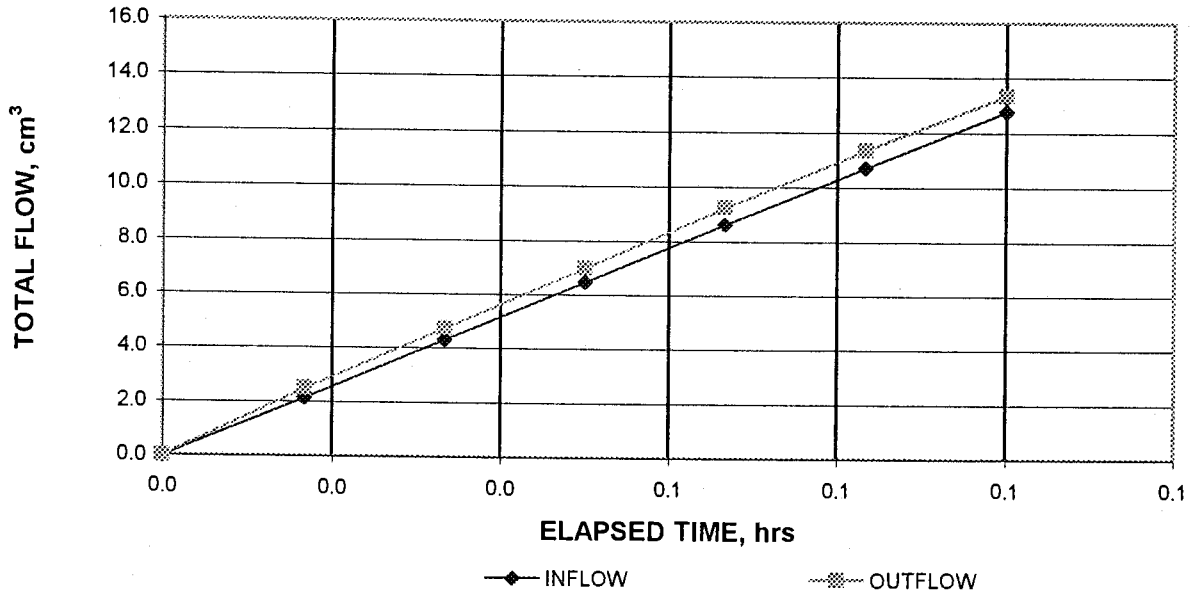
PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

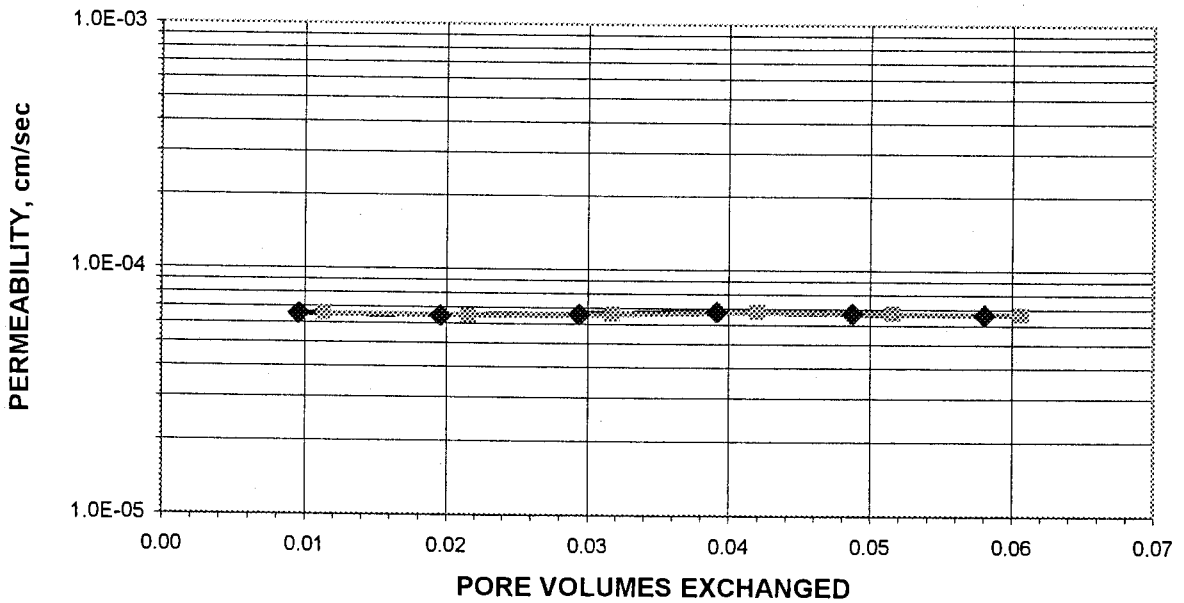
Client	MESCO	Boring No.	CD-3
Client Project	IREDELL CO. C&D LF	Depth (ft.)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.01		

AVERAGE PERMEABILITY = 6.7E-05 cm/sec @ 20°C
AVERAGE PERMEABILITY = 6.7E-07 m/sec @ 20°C

TOTAL FLOW vs. ELAPSED TIME



PORE VOLUMES EXCHANGED vs. PERMEABILITY



Tested By: DAJ Date: 11/30/01 Checked By: MHS Date: 12-13-01

DCN: CT-22 DATE: 01-08-99 REVISION:2 C:\2001 Projects\R01034\[R01034-01.01 Mesco.xls]Sheet1

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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-3
Client Project	IREDELL CO. C&D LF	Depth (ft.)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.01		
		Specific Gravity	2.72 Measured
		Sample Condition	Undisturbed

Visual Description: REDDISH-BROWN, SANDY LEAN CLAY.

MOISTURE CONTENT:	BEFORE TEST	AFTER TEST
Tare Number	SS-4	G-14
Wt. of Tare & WS (gm.)	344.95	1132.10
Wt. of Tare & DS (gm.)	306.11	925.80
Wt. of Tare (gm.)	100.41	154.02
Wt. of Water (gm.)	38.84	206.30
Wt. of DS (gm.)	205.70	771.78
Moisture Content (%)	**18.9**	**26.7**

SPECIMEN:	BEFORE TEST	AFTER TEST
Wt. of Tube & WS (gm.)	923.50	NA
Wt. of Tube (gm.)	0.00	NA
Wt. of WS (gm.)	923.50	984.47
Length 1 (in.)	4.840	4.760
Length 2 (in.)	4.864	4.826
Length 3 (in.)	4.817	4.768
Top Diameter (in.)	2.876	2.868
Middle Diameter (in.)	2.840	2.841
Bottom Diameter (in.)	2.868	2.888
Average Length (in.)	4.84	4.78
Average Area (in.^{2})	6.43	6.45
Sample Volume (cm^3)	509.88	505.55
Unit Wet Wt. (gm./ cm^3)	1.81	1.95
Unit Wet Wt. (pcf)	113.1	121.6
Unit Dry Wt. (pcf)	95.1	95.9
Unit Dry Wt. (gm./ cm^3)	1.52	1.54
Void Ratio, e	0.79	0.77
Porosity, n	0.44	0.44
Pore Volume (cm^3)	224.3	220.0

Tested By: DAJ Date: 11/30/01 Checked By: MPS Date: 12-13-01

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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-3
Client Project	IREDELL CO. C&D LF	Depth (ft.)	3.0 - 4.65
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.01		

Pressure Heads (Constant)

Top Cap (psi)	63.0
Bottom Cap (psi)	65.0
Cell (psi)	75.0
Total Pressure Head (cm)	140.6
Hydraulic Gradient	11.57

Final Sample Dimensions

Sample Length (cm), L	12.15
Sample Diameter (cm)	7.28
Sample Area (cm^2), A	41.60
Inflow Burette Area (cm^2), a-in	0.956
Outflow Burette Area (cm^2), a-out	0.975
B Parameter (%)	97

AVERAGE PERMEABILITY = 6.7E-05 cm/sec @ 20°C
AVERAGE PERMEABILITY = 6.7E-07 m/sec @ 20°C

DATE	TIME		ELAPSED TIME t	TOTAL INFLOW	TOTAL OUTFLOW	TOTAL HEAD h	FLOW (0 flow)	TEMP.	INCREMENTAL PERMEABILITY @ 20°C
(mm/dd/yy)	(hr)	(min)	(hr)	(cm^3)	(cm^3)	(cm)	(1 stop)	(°C)	(cm/sec)
12/3/01	16	51	0.0	0.0	0.0	163.9	0	22.7	NA
12/3/01	16	52	0.0	2.1	2.5	159.2	0	22.7	6.5E-05
12/3/01	16	53	0.0	4.3	4.8	154.6	0	22.7	6.5E-05
12/3/01	16	54	0.0	6.5	7.0	150.0	0	22.7	6.6E-05
12/3/01	16	55	0.1	8.6	9.3	145.4	0	22.7	6.8E-05
12/3/01	16	56	0.1	10.7	11.4	141.1	0	22.7	6.7E-05
12/3/01	16	57	0.1	12.8	13.4	136.9	1	22.7	6.6E-05

Tested By: DAJ Date: 11/30/01 Checked By: MPS Date: 12-13-01

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SPECIFIC GRAVITY

ASTM D 854-00 (SOP - S5)

Client	MESCO	Boring No.	CD-5
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	17.0 - 18.85
Project No.	R01034-01) (G01026-01)	Sample No.	NA
Lab ID	R01034-01.02	Visual Description	**DARK YELLOW-BROWN SILTY SAND** (MInus No.4 sieve material, airdried)

Replicate Number	**1**	**2**
Pycnometer ID	R 27	R 28
Weight of Pycnometer + Soil + Water (gm)	749.7	756.3
Temperature, T (°Celsius)	22.8	22.7
Weight of Pycnometer + Water (gm)	688.02	690.83
Tare Number	C-3	C-4
Weight of Tare + Dry Soil (gm)	321.61	329.14
Weight of Tare (gm)	224.2	225.96
Weight of Dry Soil (gm)	97.41	103.18
Specific Gravity of Soil @ T	2.726	2.736
Specific Gravity of Water @ T	0.9976	0.9976
Conversion Factor for Temperature T	0.9994	0.9994
Specific Gravity @ 20° Celsius	2.728	2.737

Average Specific Gravity @ 20° Celsius	2.73

Tested By DAJ *Date* 12/4/01 *Checked By* MPS *Date* 12/18/01

DCN: CT-S5 Date 09-07-00 Revision: 7 *C:\2001 Projects\R01034\[R01034-01.02 S-Gravity.xls]Sheet1*

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ATTERBERG LIMITS

ASTM D 4318-98 / AASHTO T89 (SOP - S4A)

Client	MESCO	Boring No.	CD-5
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.02	Soil Description	**DARK YELLOW-BROWN SILT**

Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description. (Minus No. 40 sieve material)

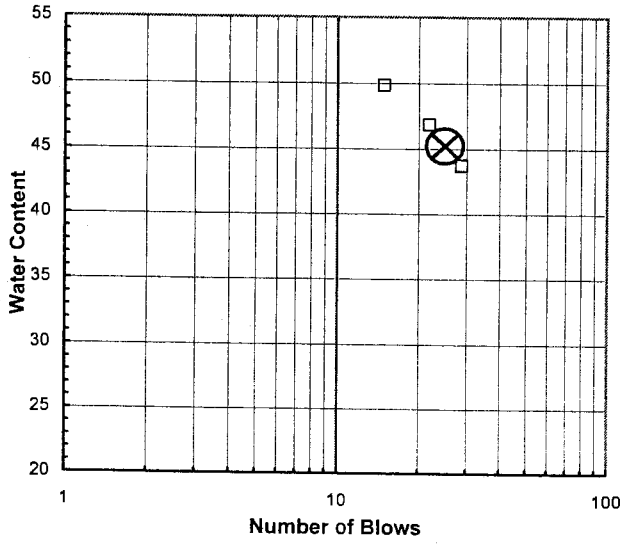
Liquid Limit Test	**1**	**2**	**3**	MULTIPOINT
Tare Number	A-R	K	A-T	
Wt. of Tare & WS (gm)	35.44	36.07	39.68	
Wt. of Tare & DS (gm)	29.41	29.44	31.68	
Wt. of Tare (gm)	15.60	15.27	15.61	
Wt. of Water (gm)	6.0	6.6	8.0	
Wt. of DS (gm)	13.8	14.2	16.1	
Moisture Content (%)	**43.7**	**46.8**	**49.8**	
Number of Blows	**29**	**22**	**15**	

Plastic Limit Test	**1**	**2**	**Range**
Tare Number	G	Q	
Wt. of Tare & WS (gm)	22.83	22.72	
Wt. of Tare & DS (gm)	20.73	20.68	
Wt. of Tare (gm)	15.03	15.20	
Wt. of Water (gm)	2.1	2.0	
Wt. of DS (gm)	5.7	5.5	
Moisture Content (%)	**36.8**	**37.2**	**-0.4**

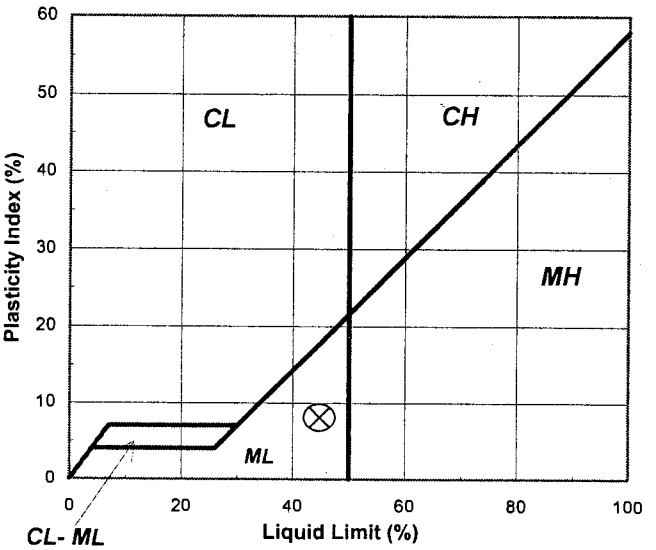
Note: The acceptable range of the two Moisture contents is ± 2.6

Test Results	
Liquid Limit (%)	**45**
Plastic Limit (%)	**37**
Plasticity Index (%)	**8**
USCS Symbol	**ML**

Flow Curve



Plasticity Chart



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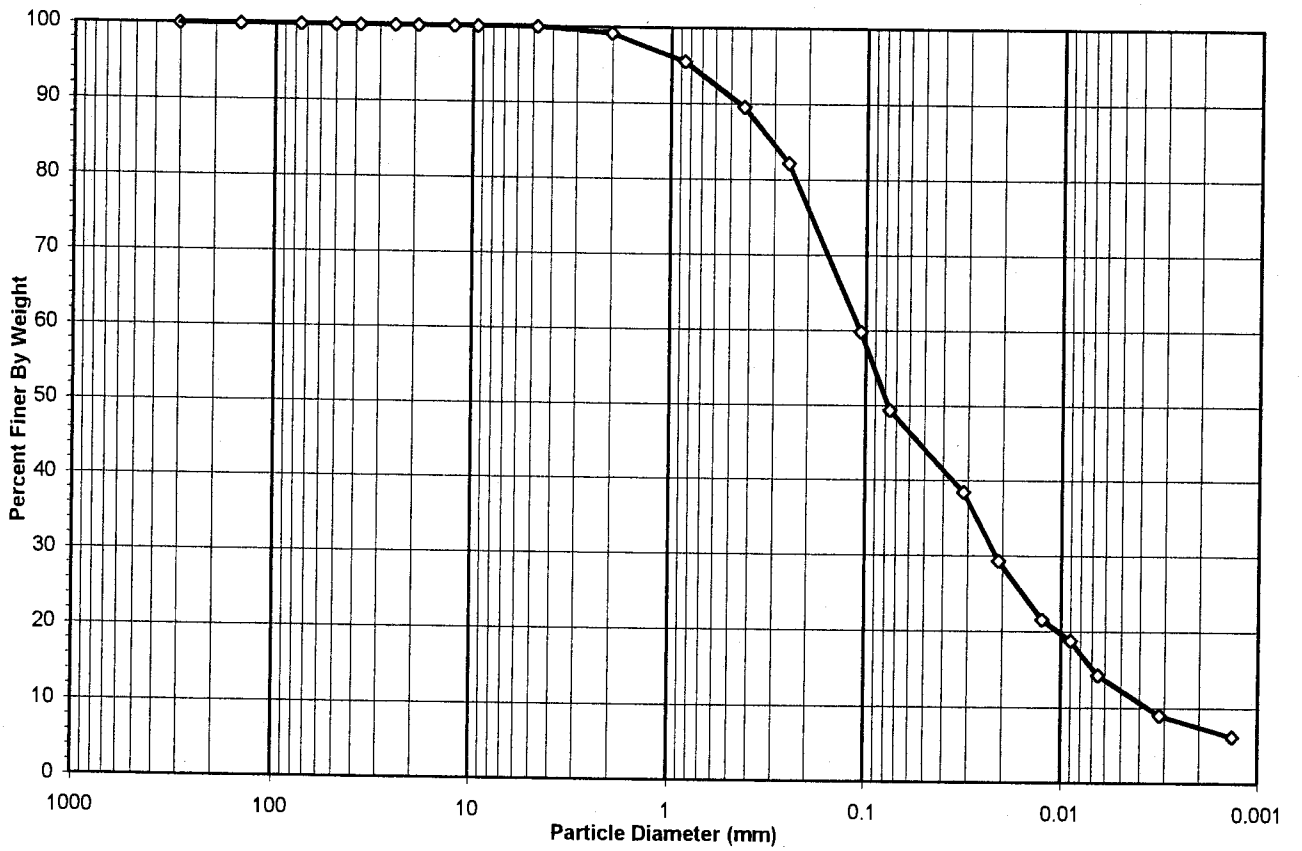
SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-5
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.02	Soil Color	DARK YELLOW-BROWN

	SIEVE ANALYSIS			HYDROMETER	
USCS	cobbles	gravel	sand	silt and clay fraction	
USDA	cobbles	gravel	sand	silt	clay

12" 6" 3" 3/4" 3/8" #4 #10 #20 #40 #140 #200



Sieve Sizes (mm)	USCS Summary	Percentage
Greater Than #4	*Gravel*	0.03
#4 To #200	*Sand*	50.60
Finer Than #200	*Silt & Clay*	49.36

USCS Symbol ***SM, TESTED***

USCS Classification ***SILTY SAND***

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

C:\2001 Projects\R01034\R01034-01.02 Sieve.xls]Sheet1

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HYDROMETER ANALYSIS

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-5
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.02	Soil Color	**DARK YELLOW-BROWN**

Bulb Ser.# **667986**

Elapsed Time (min)		R Measured	Temp. (°C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	34.0	34.0	18.6	6.66	27.3	38.8	0.01355	0.0314	**38.5**
5		27.5	18.6	6.66	20.8	29.6	0.01355	0.0208	**29.3**
15		22.0	18.6	6.66	15.3	21.8	0.01355	0.0125	**21.6**
30		20.0	18.6	6.66	13.3	18.9	0.01355	0.0089	**18.8**
60		17.0	18.0	6.83	10.2	14.4	0.01365	0.0065	**14.3**
250		12.5	20.6	6.07	6.4	9.1	0.01323	0.0032	**9.0**
1440		11.0	19.0	6.54	4.5	6.3	0.01349	0.0014	**6.3**

Soil Specimen Data		Other Corrections	
Tare + Dry Material (gm)	69.38	a - Factor	0.984
Weight of Tare (gm)	0		
Weight of Deflocculant (gm)	5.0	Percent Finer than # 10	99.25
Weight of Dry Material (gm)	69.38		
		Specific Gravity	2.73 Measured

Note:

Tested By DAJ Date 12/4/01 Checked By MDS Date 12-13-01

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Geotechnics

WASH SIEVE ANALYSIS #10 SPLIT

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-5
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.02	Soil Color	**DARK YELLOW-BROWN**

Moisture Content/sieve +10 Material		Moisture Content for Hydrometer Portion	
Tare No.	G-15	Tare No.	S-9
Wgt.Tare + Wet Soil (gm)	757.10	Wgt.Tare + Wet Soil (gm)	183.72
Wgt.Tare + Dry Soil (gm)	619.50	Wgt.Tare + Dry Soil (gm)	181.68
Weight of Tare (gm)	153.85	Weight of Tare (gm)	101.01
Weight of Water (gm)	137.60	Weight of Water (gm)	2.04
Weight of Dry Soil (gm)	465.65	Weight of Dry Soil (gm)	80.67
Moisture Content (%)	**29.6**	**Moisture Content (%)**	**2.5**

Soil Specimen Data			
Wet Weight +#10 Material (gm)	603.25	Weight of the Dry Sample (gm)	535.03
Dry Weight +#10 Material(gm)	465.7	Weight of minus #200 material (gm)	34.51
Wet Weight Hydro. Material.(gm)	71.13	Weight of plus #200 material (gm)	500.52
Dry Weight Hydro. Material (gm)	69.38		
Total Dry Weight Sample (gm)	535.03	**J-FACTOR (%FINER THAN #10)**	**0.9925**

Sieve Size	Sieve Opening (mm)	Wgt.of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	**Accumulated Percent Finer (%)**
12"	300	0.00	0.00	0.00	100.00	**100.00**
6"	150	0.00	0.00	0.00	100.00	**100.00**
3"	75	0.00	0.00	0.00	100.00	**100.00**
2"	50	0.00	0.00	0.00	100.00	**100.00**
1 1/2"	37.5	0.00	0.00	0.00	100.00	**100.00**
1"	25.0	0.00	0.00	0.00	100.00	**100.00**
3/4"	19.0	0.00	0.00	0.00	100.00	**100.00**
1/2"	12.5	0.00	0.00	0.00	100.00	**100.00**
3/8"	9.50	0.00	0.00	0.00	100.00	**100.00**
#4	4.75	0.16	0.03	0.03	99.97	**99.97**
#10	2.00	3.33	0.72	0.75	99.25	**99.25**
#20	0.85	2.57	3.70	3.70	96.30	**95.57**
#40	0.425	4.18	6.03	9.73	90.27	**89.59**
#60	0.250	5.19	7.48	17.21	82.79	**82.17**
#140	0.106	15.64	22.54	39.75	60.25	**59.79**
#200	0.075	7.29	10.51	50.26	49.74	**49.36**
Pan	-	34.51	49.74	100.00	-	**-**

Notes :

Tested By DAJ Date 12/6/01 Checked By MPS Date 12-13-01

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PERMEABILITY TEST

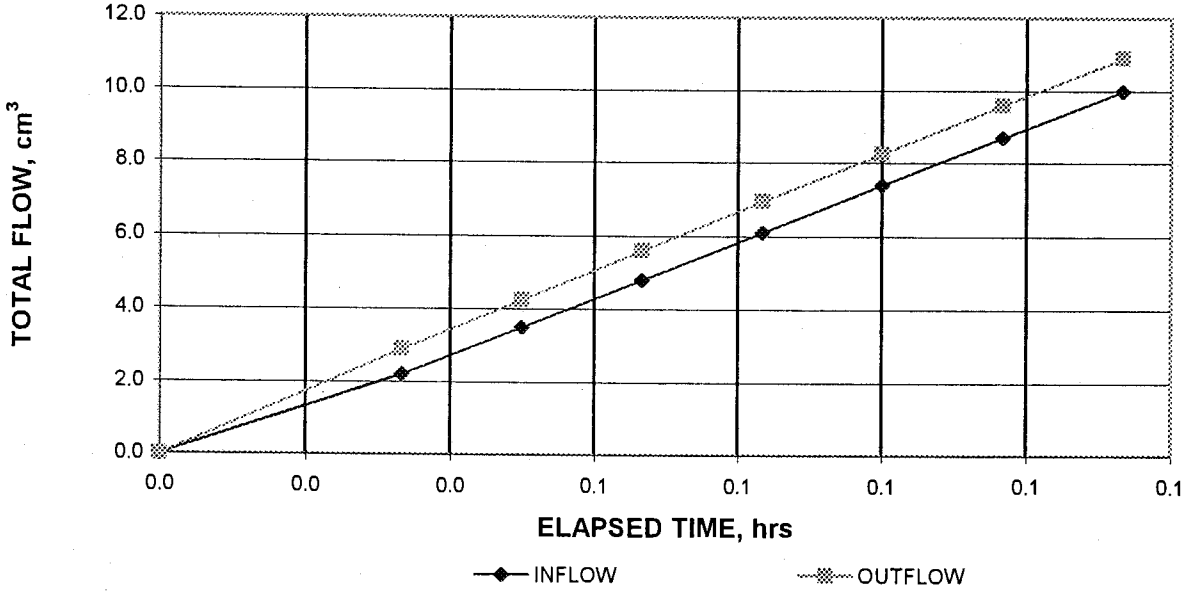
ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

geotechnics

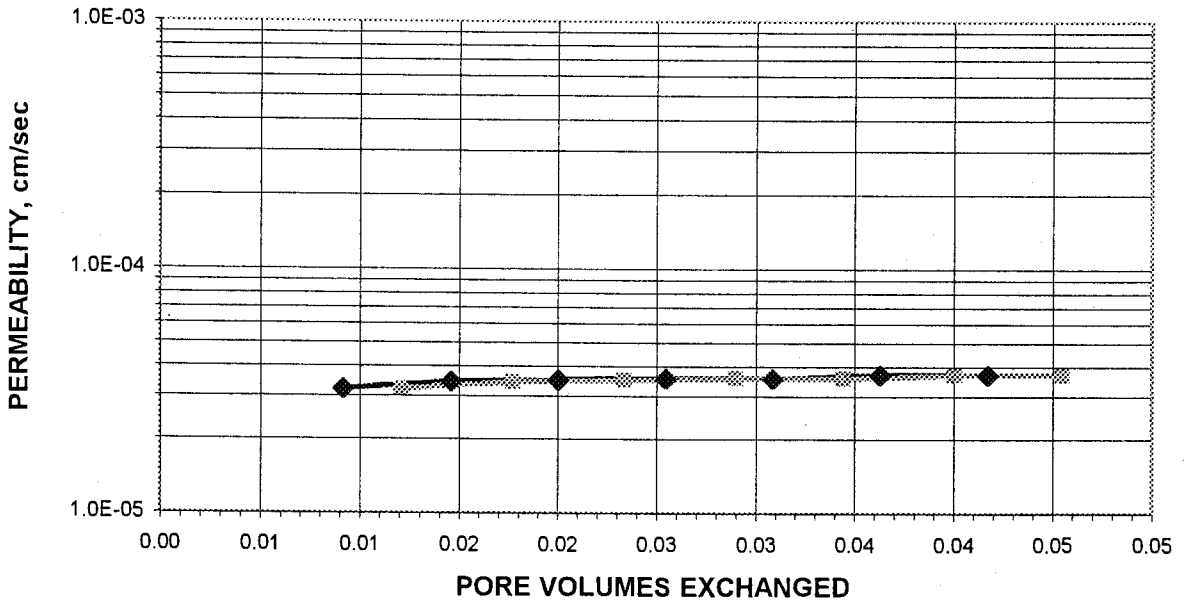
Client	MESCO	Boring No.	CD-5
Client Project	IREDELL CO. C&D LF	Depth (ft.)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.02		

AVERAGE PERMEABILITY = 3.6E-05 cm/sec @ 20°C
AVERAGE PERMEABILITY = 3.6E-07 m/sec @ 20°C

TOTAL FLOW vs. ELAPSED TIME



PORE VOLUMES EXCHANGED vs. PERMEABILITY



Tested By: DAJ Date: 11/30/01 Checked By: MWS Date: 12-13-01

DCN: CT-22 DATE: 01-08-99 REVISION:2 C:\2001 Projects\R01034\[R01034-01.02 Mesco.xls]Sheet1

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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-5
Client Project	IREDELL CO. C&D LF	Depth (ft.)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.02		
		Specific Gravity	2.73 Measured
		Sample Condition	Undisturbed

Visual Description: BROWN, SILTY SAND WITH MICA.

MOISTURE CONTENT:	BEFORE TEST	AFTER TEST
Tare Number	F-4	G-6
Wt. of Tare & WS (gm.)	404.90	966.90
Wt. of Tare & DS (gm.)	340.96	751.70
Wt. of Tare (gm.)	99.89	155.80
Wt. of Water (gm.)	63.94	215.20
Wt. of DS (gm.)	241.07	595.90
Moisture Content (%)	**26.5**	**36.1**

SPECIMEN:	BEFORE TEST	AFTER TEST
Wt. of Tube & WS (gm.)	734.80	NA
Wt. of Tube (gm.)	0.00	NA
Wt. of WS (gm.)	734.80	790.50
Length 1 (in.)	4.192	4.296
Length 2 (in.)	4.242	4.242
Length 3 (in.)	4.229	4.292
Top Diameter (in.)	2.935	2.873
Middle Diameter (in.)	2.844	2.858
Bottom Diameter (in.)	2.880	2.868
Average Length (in.)	4.22	4.28
Average Area ($in.^2$)	6.54	6.45
Sample Volume (cm^3)	452.48	452.22
Unit Wet Wt. ($gm./cm^3$)	1.62	1.75
Unit Wet Wt. (pcf)	101.4	109.1
Unit Dry Wt. (pcf)	80.1	80.2
Unit Dry Wt. ($gm./cm^3$)	1.28	1.28
Void Ratio, e	1.13	1.13
Porosity, n	0.53	0.53
Pore Volume (cm^3)	239.7	239.5

Tested By: DAJ Date: 11/30/01 Checked By: MDS Date: 12-13-01

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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-5
Client Project	IREDELL CO. C&D LF	Depth (ft.)	17.0 - 18.85
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.02		

Pressure Heads (Constant)

Top Cap (psi)	63.0
Bottom Cap (psi)	65.0
Cell (psi)	75.0
Total Pressure Head (cm)	140.6
Hydraulic Gradient	12.94

Final Sample Dimensions

Sample Length (cm), L	10.86
Sample Diameter (cm)	7.28
Sample Area (cm^2), A	41.63
Inflow Burette Area (cm^2), a-in	0.951
Outflow Burette Area (cm^2), a-out	0.972
B Parameter (%)	97

AVERAGE PERMEABILITY = 3.6E-05 cm/sec @ 20°C
AVERAGE PERMEABILITY = 3.6E-07 m/sec @ 20°C

DATE	TIME		ELAPSED TIME t	TOTAL INFLOW	TOTAL OUTFLOW	TOTAL HEAD h	FLOW (0 flow)	TEMP.	INCREMENTAL PERMEABILITY @ 20°C
(mm/dd/yy)	(hr)	(min)	(hr)	(cm^3)	(cm^3)	(cm)	(1 stop)	(°C)	(cm/sec)
12/3/01	18	7	0.0	0.0	0.0	163.9	0	22.5	NA
12/3/01	18	9	0.0	2.2	2.9	158.6	0	22.5	3.2E-05
12/3/01	18	10	0.1	3.5	4.3	155.9	0	22.5	3.4E-05
12/3/01	18	11	0.1	4.8	5.6	153.2	0	22.5	3.5E-05
12/3/01	18	12	0.1	6.1	7.0	150.4	0	22.5	3.6E-05
12/3/01	18	13	0.1	7.4	8.3	147.7	0	22.5	3.6E-05
12/3/01	18	14	0.1	8.7	9.6	145.0	0	22.5	3.7E-05
12/3/01	18	15	0.1	10.0	10.9	142.3	1	22.5	3.7E-05

Tested By: DAJ Date: 11/30/01 Checked By: MPS Date: 12-13-01

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Geotechnics

SPECIFIC GRAVITY

ASTM D 854-00 (SOP - S5)

Client	MESCO	Boring No.	CD-6
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.03	Visual Description	**LIGHT BROWN SILTY SAND** (MInus No.4 sieve material, airdried)

Replicate Number	**1**	**2**
Pycnometer ID	R 27	R 28
Weight of Pycnometer + Soil + Water (gm)	748.0	748.3
Temperature, T (°Celsius)	22.7	22.7
Weight of Pycnometer + Water (gm)	688.03	690.83
Tare Number	C-4	C-5
Weight of Tare + Dry Soil (gm)	319.79	312.63
Weight of Tare (gm)	225.79	222.56
Weight of Dry Soil (gm)	94.00	90.07
Specific Gravity of Soil @ T	2.762	2.763
Specific Gravity of Water @ T	0.9976	0.9976
Conversion Factor for Temperature T	0.9994	0.9994
Specific Gravity @ 20° Celsius	2.764	2.764

Average Specific Gravity @ 20° Celsius	2.76

Tested By DAJ *Date* 12/6/01 *Checked By* MPS *Date* 12-13-01

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Geotechnics

ATTERBERG LIMITS

ASTM D 4318-98 / AASHTO T89 (SOP - S4A)

Client	MESCO	Boring No.	CD-6
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.03	Soil Description	**LIGHT BROWN SILT**

Note: The USCS symbol used with this test refers only to the minus No. 40 sieve material. See the "Sieve and Hydrometer Analysis" graph page for the complete material description. (Minus No. 40 sieve material)

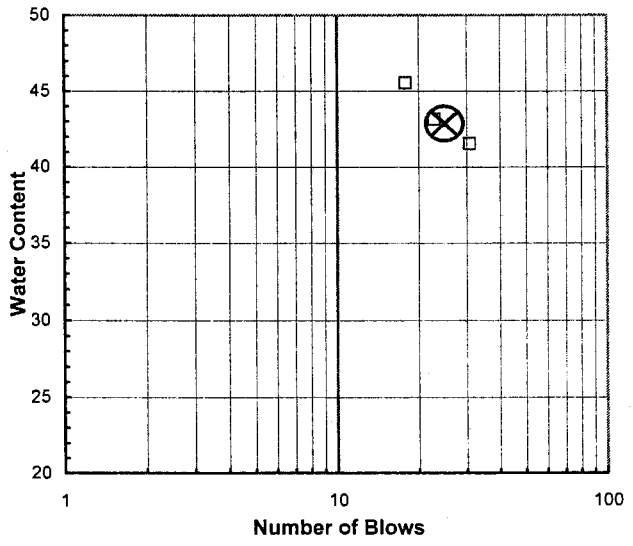
Liquid Limit Test	**1**	**2**	**3**	
				M
Tare Number	A-A	Z-Y	A-N	**U**
Wt. of Tare & WS (gm)	30.78	32.04	34.64	**L**
Wt. of Tare & DS (gm)	26.30	27.17	28.63	**T**
Wt. of Tare (gm)	15.50	15.87	15.42	**I**
Wt. of Water (gm)	4.5	4.9	6.0	**P**
Wt. of DS (gm)	10.8	11.3	13.2	**O**
				I
Moisture Content (%)	**41.5**	**43.1**	**45.5**	**N**
Number of Blows	**31**	**23**	**18**	**T**

Plastic Limit Test	**1**	**2**	**Range**
Tare Number	P	X	
Wt. of Tare & WS (gm)	22.28	22.45	
Wt. of Tare & DS (gm)	20.66	20.75	
Wt. of Tare (gm)	15.20	15.25	
Wt. of Water (gm)	1.6	1.7	
Wt. of DS (gm)	5.5	5.5	
Moisture Content (%)	**29.7**	**30.9**	**-1.2**

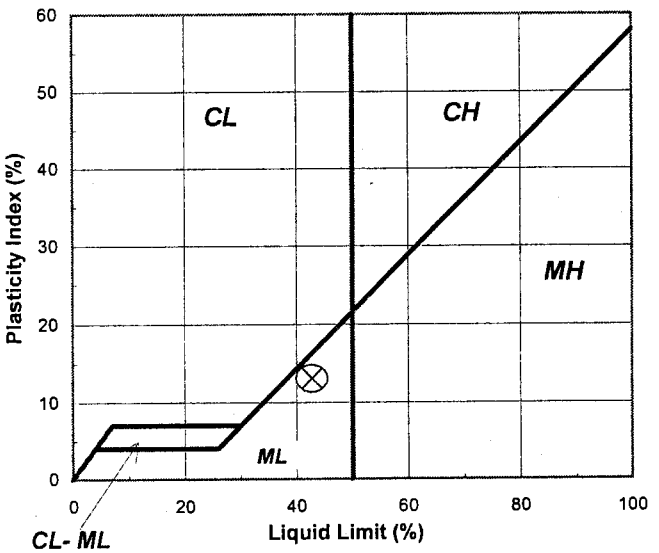
Note: The acceptable range of the two Moisture contents is ± 2.6

Test Results	
Liquid Limit (%)	**43**
Plastic Limit (%)	**30**
Plasticity Index (%)	**13**
USCS Symbol	**ML**

Flow Curve



Plasticity Chart



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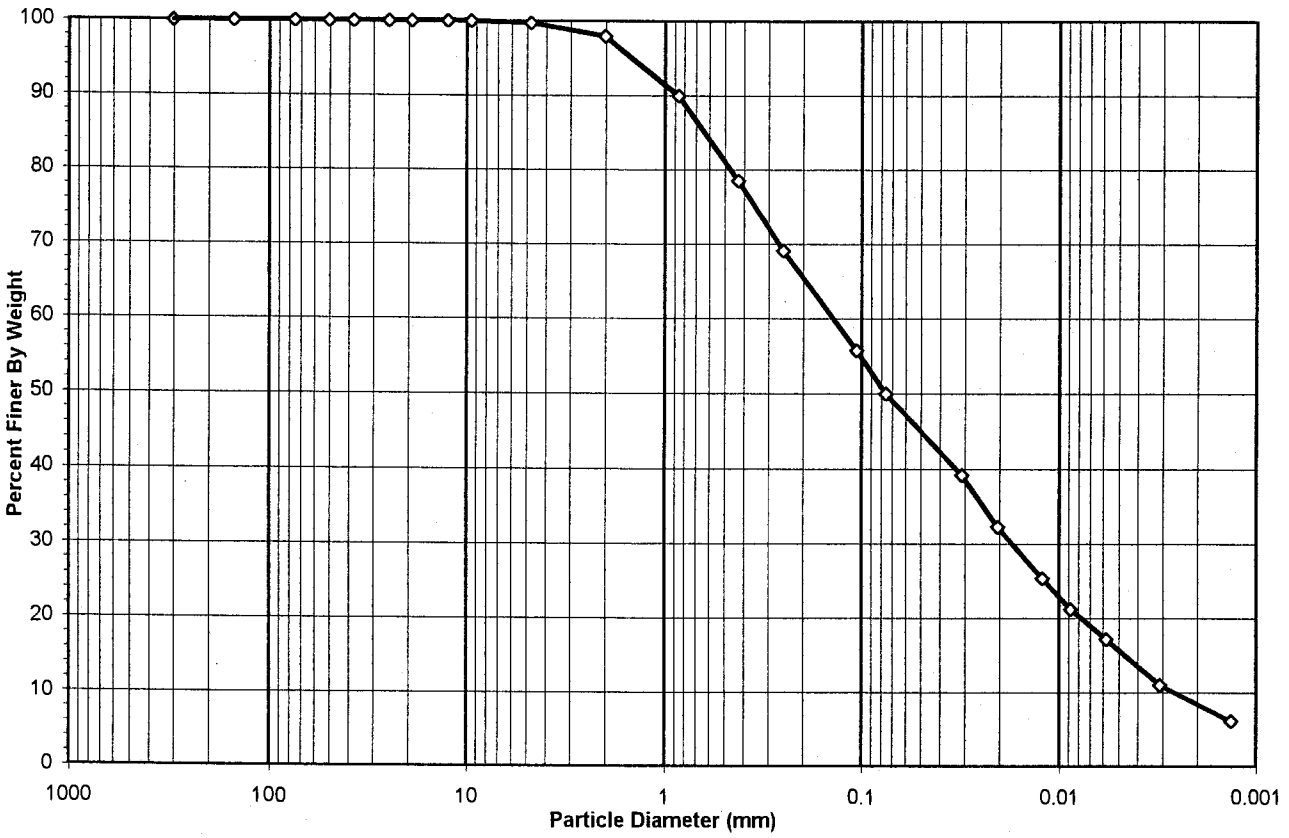
SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (SOP-S3)

Geotechnics

Client	MESCO	Boring No.	CD-6
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.03	Soil Color	**LIGHT BROWN**

	SIEVE ANALYSIS			HYDROMETER	
USCS	cobbles	gravel	sand	silt and clay fraction	
USDA	cobbles	gravel	sand	silt	clay

12" 6" 3" 3/4" 3/8" #4 #10 #20 #40 #140 #200



USCS Summary

Sieve Sizes (mm)		Percentage
Greater Than #4	*Gravel*	0.22
#4 To #200	*Sand*	49.84
Finer Than #200	*Silt & Clay*	49.94

USCS Symbol ***SM, TESTED***

USCS Classification ***SILTY SAND***

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

C:\2001 Projects\R01034\[R01034-01.03 Sieve.xls]Sheet1

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Geotechnics

HYDROMETER ANALYSIS

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-6
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.03	Soil Color	**LIGHT BROWN**

Bulb Ser.#
667986

Elapsed Time (min)		R Measured	Temp. (°C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	35.5	35.0	18.6	6.66	28.3	40.0	0.01344	0.0309	**39.2**
5		30.0	18.6	6.66	23.3	33.0	0.01344	0.0203	**32.3**
15		25.0	18.6	6.66	18.3	25.9	0.01344	0.0121	**25.4**
30		22.0	18.6	6.66	15.3	21.7	0.01344	0.0087	**21.2**
71		19.0	19.0	6.54	12.5	17.6	0.01337	0.0058	**17.2**
250		14.0	20.9	5.99	8.0	11.3	0.01307	0.0031	**11.1**
1440		11.0	19.0	6.54	4.5	6.3	0.01337	0.0013	**6.2**

Soil Specimen Data		**Other Corrections**	
Tare + Dry Material (gm)	69.24	a - Factor	0.978
Weight of Tare (gm)	0		
Weight of Deflocculant (gm)	5.0	Percent Finer than # 10	97.96
Weight of Dry Material (gm)	69.24		
		Specific Gravity	2.76 Measured

Note:

Tested By DAJ Date 12/4/01 Checked By MPS Date 12-12-01

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

C:\2001 Projects\R01034\[R01034-01.03 Sieve.xls]Sheet1

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Geotechnics

WASH SIEVE ANALYSIS #10 SPLIT

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-6
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.03	Soil Color	**LIGHT BROWN**

Moisture Content/sieve +10 Material		Moisture Content for Hydrometer Portion	
Tare No.	A-A	Tare No.	F-3
Wgt.Tare + Wet Soil (gm)	607.40	Wgt.Tare + Wet Soil (gm)	254.05
Wgt.Tare + Dry Soil (gm)	501.30	Wgt.Tare + Dry Soil (gm)	243.29
Weight of Tare (gm)	153.72	Weight of Tare (gm)	99.30
Weight of Water (gm)	106.10	Weight of Water (gm)	10.76
Weight of Dry Soil (gm)	347.58	Weight of Dry Soil (gm)	143.99
Moisture Content (%)	**30.5**	**Moisture Content (%)**	**7.5**

Soil Specimen Data			
Wet Weight +#10 Material (gm)	453.68	Weight of the Dry Sample (gm)	416.82
Dry Weight +#10 Material(gm)	347.6	Weight of minus #200 material (gm)	35.30
Wet Weight Hydro. Material.(gm)	74.41	Weight of plus #200 material (gm)	381.52
Dry Weight Hydro. Material (gm)	69.24		
Total Dry Weight Sample (gm)	416.82	**J-FACTOR (%FINER THAN #10)**	**0.9796**

Sieve Size	Sieve Opening (mm)	Wgt.of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	**Accumulated Percent Finer (%)**
12"	300	0.00	0.00	0.00	100.00	**100.00**
6"	150	0.00	0.00	0.00	100.00	**100.00**
3"	75	0.00	0.00	0.00	100.00	**100.00**
2"	50	0.00	0.00	0.00	100.00	**100.00**
1 1/2"	37.5	0.00	0.00	0.00	100.00	**100.00**
1"	25.0	0.00	0.00	0.00	100.00	**100.00**
3/4"	19.0	0.00	0.00	0.00	100.00	**100.00**
1/2"	12.5	0.00	0.00	0.00	100.00	**100.00**
3/8"	9.50	0.00	0.00	0.00	100.00	**100.00**
#4	4.75	0.77	0.22	0.22	99.78	**99.78**
#10	2.00	6.33	1.82	2.04	97.96	**97.96**
#20	0.85	5.64	8.15	8.15	91.85	**89.98**
#40	0.425	8.12	11.73	19.87	80.13	**78.49**
#60	0.250	6.65	9.60	29.48	70.52	**69.08**
#140	0.106	9.44	13.63	43.11	56.89	**55.72**
#200	0.075	4.09	5.91	49.02	50.98	**49.94**
Pan	-	35.30	50.98	100.00	-	-

Notes :

Tested By DAJ Date 12/6/01 Checked By MMS Date 12-13-01

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PERMEABILITY TEST

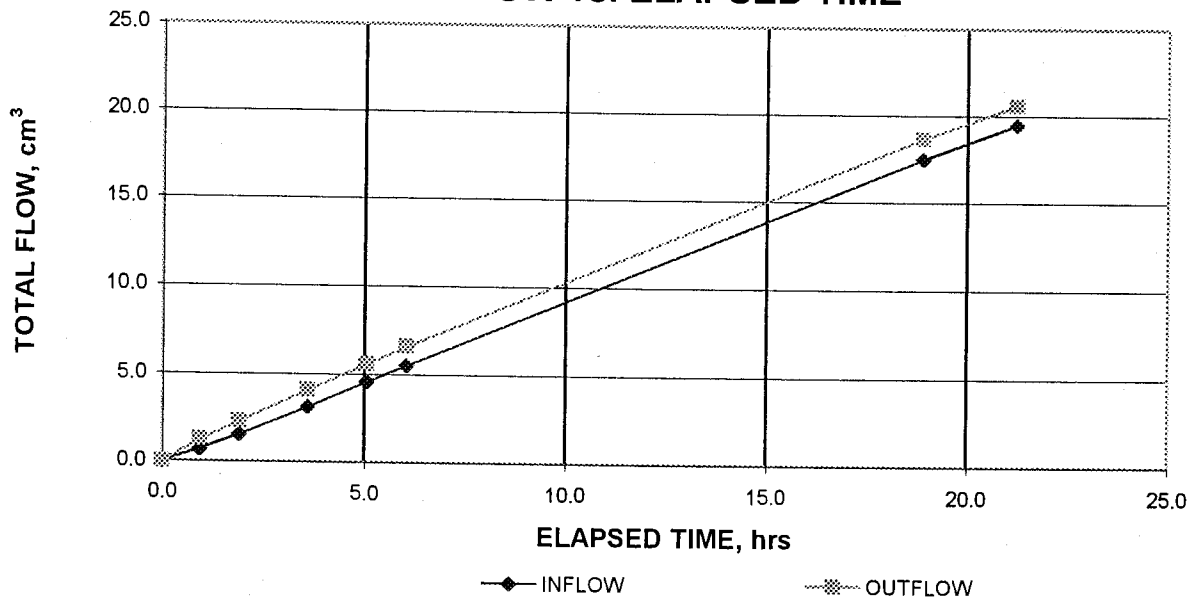
ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

geotechnics

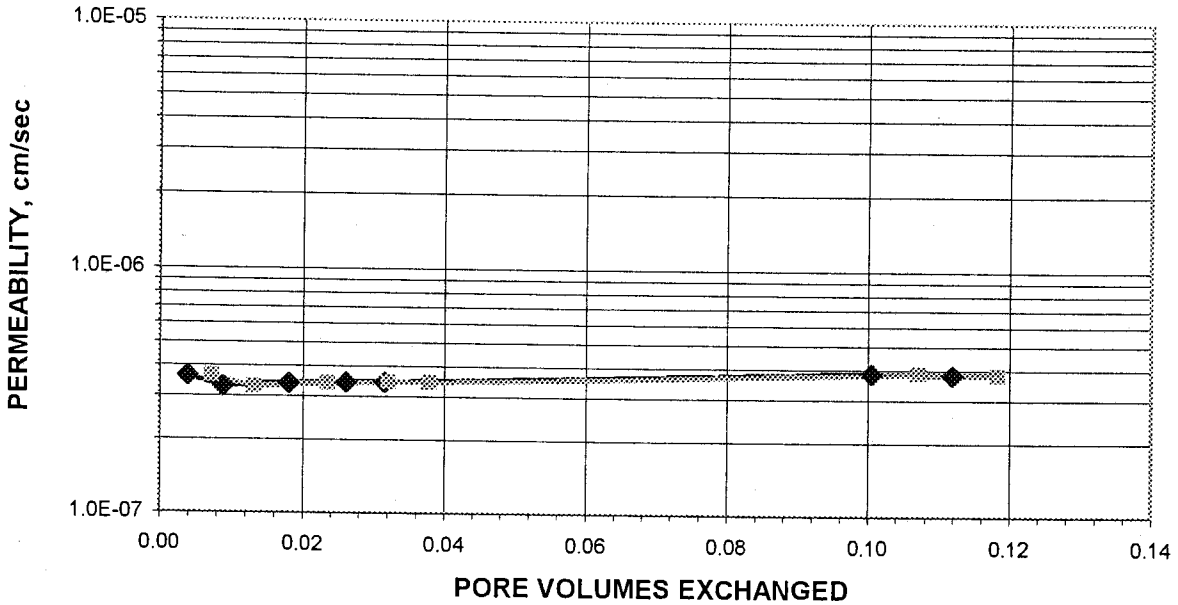
Client	MESCO	Boring No.	CD-6
Client Project	IREDELL CO. C&D LF	Depth (ft.)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.03		

AVERAGE PERMEABILITY = 3.6E-07 cm/sec @ 20°C
AVERAGE PERMEABILITY = 3.6E-09 m/sec @ 20°C

TOTAL FLOW vs. ELAPSED TIME



PORE VOLUMES EXCHANGED vs. PERMEABILITY



Tested By: DAJ Date: 11/30/01 Checked By: MAS Date: 12-13-01

DCN: CT-22 DATE: 01-08-99 REVISION:2 C:\2001 Projects\R01034\[R01034-01.03 Mesco.xls]Sheet1

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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-6
Client Project	IREDELL CO. C&D LF	Depth (ft.)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.03		
		Specific Gravity	2.76 Measured
		Sample Condition	Undisturbed

Visual Description: LIGHT BROWN, SILTY SAND.

MOISTURE CONTENT:	BEFORE TEST	AFTER TEST
Tare Number	Y-5	230
Wt. of Tare & WS (gm.)	455.80	835.00
Wt. of Tare & DS (gm.)	365.44	662.30
Wt. of Tare (gm.)	100.14	86.98
Wt. of Water (gm.)	90.36	172.70
Wt. of DS (gm.)	265.30	575.32
Moisture Content (%)	**34.1**	**30.0**

SPECIMEN:	BEFORE TEST	AFTER TEST
Wt. of Tube & WS (gm.)	780.40	NA
Wt. of Tube (gm.)	0.00	NA
Wt. of WS (gm.)	780.40	756.87
Length 1 (in.)	4.043	3.730
Length 2 (in.)	4.088	3.874
Length 3 (in.)	3.987	3.741
Top Diameter (in.)	2.809	2.824
Middle Diameter (in.)	2.830	2.782
Bottom Diameter (in.)	2.848	2.832
Average Length (in.)	4.04	3.78
Average Area ($in.^2$)	6.28	6.21
Sample Volume (cm^3)	415.94	384.94
Unit Wet Wt. ($gm./cm^3$)	1.88	1.97
Unit Wet Wt. (pcf)	117.1	122.7
Unit Dry Wt. (pcf)	87.4	94.4
Unit Dry Wt. ($gm./cm^3$)	1.40	1.51
Void Ratio, e	0.97	0.83
Porosity, n	0.49	0.45
Pore Volume (cm^3)	205.0	174.0

Tested By: DAJ Date: 11/30/01 Checked By: MPS Date: 12-13-01

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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-6
Client Project	IREDELL CO. C&D LF	Depth (ft.)	20.0 - 21.8
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.03		

Pressure Heads (Constant)

Top Cap (psi)	57.6
Bottom Cap (psi)	60.0
Cell (psi)	70.0
Total Pressure Head (cm)	168.7
Hydraulic Gradient	17.57

Final Sample Dimensions

Sample Length (cm), L	9.61
Sample Diameter (cm)	7.14
Sample Area (cm^2), A	40.08
Inflow Burette Area (cm^2), a-in	0.979
Outflow Burette Area (cm^2), a-out	0.906
B Parameter (%)	97

AVERAGE PERMEABILITY = 3.6E-07 cm/sec @ 20°C
AVERAGE PERMEABILITY = 3.6E-09 m/sec @ 20°C

DATE	TIME		ELAPSED TIME t	TOTAL INFLOW	TOTAL OUTFLOW	TOTAL HEAD h	FLOW (0 flow)	TEMP.	INCREMENTAL PERMEABILITY @ 20°C
(mm/dd/yy)	(hr)	(min)	(hr)	(cm^3)	(cm^3)	(cm)	(1 stop)	(°C)	(cm/sec)
12/3/01	12	51	0.0	0.0	0.0	191.5	0	20.6	NA
12/3/01	13	47	0.9	0.7	1.3	189.4	0	21.3	3.6E-07
12/3/01	14	45	1.9	1.6	2.3	187.4	0	22.0	3.3E-07
12/3/01	16	26	3.6	3.2	4.1	183.7	0	22.8	3.4E-07
12/3/01	17	54	5.1	4.6	5.6	180.6	0	22.5	3.4E-07
12/3/01	18	53	6.0	5.5	6.6	178.6	0	22.4	3.4E-07
12/4/01	7	45	18.9	17.5	18.7	153.0	0	18.9	3.9E-07
12/4/01	10	5	21.2	19.5	20.6	148.9	1	19.2	3.8E-07

Tested By: DAJ Date: 11/30/01 Checked By: MPS Date: 12-13-01

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Geotechnics

SPECIFIC GRAVITY

ASTM D 854-00 (SOP - S5)

Client	MESCO	Boring No.	CD-7
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.04	Visual Description	**LIGHT BROWN SOME WHITE SANDY SILT** (MInus No.4 sieve material, airdried)

Replicate Number	**1**	**2**
Pycnometer ID	R 29	R 30
Weight of Pycnometer + Soil + Water (gm)	759.5	747.9
Temperature, T (°Celsius)	22.9	22.7
Weight of Pycnometer + Water (gm)	692.43	687.15
Tare Number	C-2	C-3
Weight of Tare + Dry Soil (gm)	329.25	318.76
Weight of Tare (gm)	224.58	224.29
Weight of Dry Soil (gm)	104.67	94.47
Specific Gravity of Soil @ T	2.784	2.801
Specific Gravity of Water @ T	0.9976	0.9976
Conversion Factor for Temperature T	0.9994	0.9994
Specific Gravity @ 20° Celsius	2.786	2.803

Average Specific Gravity @ 20° Celsius	2.79

Tested By DAJ *Date* 12/6/01 *Checked By* MDS *Date* 12-13-01

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Geotechnics

ATTERBERG LIMIT

ASTM D 4318-96 (SOP - S4)

Client	MESCO	Boring No.	CD-7
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.04	Visual Description	**LIGHT BROWN SOME WHITE SILT** (MInus No. 40 sieve material)

NON - PLASTIC MATERIAL

Tested By DAJ Date 12/12/01 Checked By MPS Date 12-13-01

DCN: CT-S4C DATE: 7-11-97 REVISION : 2

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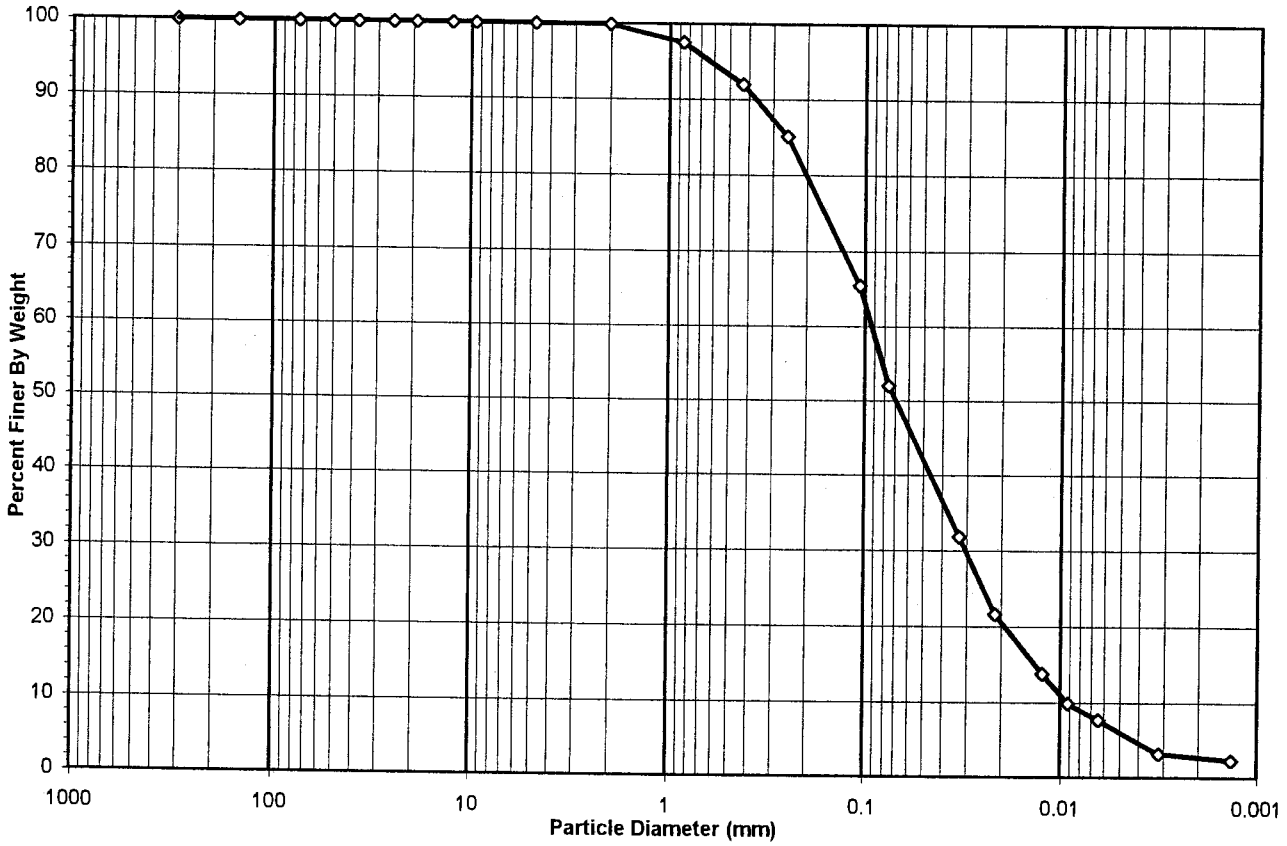
Geotechnics

SIEVE AND HYDROMETER ANALYSIS
ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-7
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.04	Soil Color	LIGHT BROWN SOME WHITE

	SIEVE ANALYSIS			HYDROMETER	
USCS	cobbles	gravel	sand	silt and clay fraction	
USDA	cobbles	gravel	sand	silt	clay

12" 6" 3" 3/4" 3/8" #4 #10 #20 #40 #140 #200



USCS Summary		
Sieve Sizes (mm)		Percentage
Greater Than #4	*Gravel*	0.00
#4 To #200	*Sand*	48.08
Finer Than #200	*Silt & Clay*	51.92

USCS Symbol ***ML, TESTED (NON-PLASTIC FINES)***

USCS Classification ***SANDY SILT***

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

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HYDROMETER ANALYSIS

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-7
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.04	Soil Color	**LIGHT BROWN SOME WHITE**

Bulb Ser.# **667986**

Elapsed Time (min)		R Measured	Temp. (°C)	Composite Correction	R Corrected	N (%)	K Factor	Diameter (mm)	N' (%)
0	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	27.0	27.0	18.65	6.64	20.4	31.8	0.01332	0.0324	**31.8**
5		20.5	18.65	6.64	13.9	21.7	0.01332	0.0214	**21.7**
16		15.5	18.65	6.64	8.9	13.9	0.01332	0.0123	**13.8**
30		13.0	18.65	6.64	6.4	9.9	0.01332	0.0092	**9.9**
62		11.5	19.0	6.54	5.0	7.8	0.01326	0.0064	**7.8**
250		8.0	21.1	5.93	2.1	3.2	0.01293	0.0032	**3.2**
1440		8.0	19.1	6.51	1.5	2.3	0.01324	0.0014	**2.3**

Soil Specimen Data		**Other Corrections**	
Tare + Dry Material (gm)	62.13	a - Factor	0.972
Weight of Tare (gm)	0		
Weight of Deflocculant (gm)	5.0	Percent Finer than # 10	99.93
Weight of Dry Material (gm)	62.13		
		Specific Gravity	2.79 Measured

Note:

Tested By DAJ Date 12/4/01 Checked By MPS Date 12-13-01

DCN: CT-S3P DATE: 03/07/01 REVISION: 5

C:\2001 Projects\R01034\[R01034-01.04 Sieve.xls]Sheet1

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Geotechnics

WASH SIEVE ANALYSIS #10 SPLIT

ASTM D 422-63 (SOP-S3)

Client	MESCO	Boring No.	CD-7
Client Reference	IREDELL CO. C&D LANDFILL	Depth (ft)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID	R01034-01.04	Soil Color	**LIGHT BROWN SOME WHITE**

Moisture Content/sieve +10 Material		Moisture Content for Hydrometer Portion	
Tare No.	K-8	Tare No.	Z-9
Wgt.Tare + Wet Soil (gm)	558.00	Wgt.Tare + Wet Soil (gm)	184.19
Wgt.Tare + Dry Soil (gm)	427.70	Wgt.Tare + Dry Soil (gm)	174.39
Weight of Tare (gm)	156.18	Weight of Tare (gm)	100.19
Weight of Water (gm)	130.30	Weight of Water (gm)	9.80
Weight of Dry Soil (gm)	271.52	Weight of Dry Soil (gm)	74.20
Moisture Content (%)	**48.0**	**Moisture Content (%)**	**13.2**

Soil Specimen Data			
Wet Weight +#10 Material (gm)	401.82	Weight of the Dry Sample (gm)	333.65
Dry Weight +#10 Material(gm)	271.5	Weight of minus #200 material (gm)	32.28
Wet Weight Hydro. Material.(gm)	70.34	Weight of plus #200 material (gm)	301.37
Dry Weight Hydro. Material (gm)	62.13		
Total Dry Weight Sample (gm)	333.65	**J-FACTOR (%FINER THAN #10)**	**0.9993**

Sieve Size	Sieve Opening (mm)	Wgt.of Soil Retained (gm)	Percent Retained (%)	Accumulated Percent Retained (%)	Percent Finer (%)	**Accumulated Percent Finer (%)**
12"	300	0.00	0.00	0.00	100.00	**100.00**
6"	150	0.00	0.00	0.00	100.00	**100.00**
3"	75	0.00	0.00	0.00	100.00	**100.00**
2"	50	0.00	0.00	0.00	100.00	**100.00**
1 1/2"	37.5	0.00	0.00	0.00	100.00	**100.00**
1"	25.0	0.00	0.00	0.00	100.00	**100.00**
3/4"	19.0	0.00	0.00	0.00	100.00	**100.00**
1/2"	12.5	0.00	0.00	0.00	100.00	**100.00**
3/8"	9.50	0.00	0.00	0.00	100.00	**100.00**
#4	4.75	0.00	0.00	0.00	100.00	**100.00**
#10	2.00	0.19	0.07	0.07	99.93	**99.93**
#20	0.85	1.49	2.40	2.40	97.60	**97.53**
#40	0.425	3.46	5.57	7.97	92.03	**91.97**
#60	0.250	4.25	6.84	14.81	85.19	**85.13**
#140	0.106	12.22	19.67	34.47	65.53	**65.48**
#200	0.075	8.43	13.57	48.04	51.96	**51.92**
Pan	-	32.28	51.96	100.00	-	-

Notes :

Tested By DAJ Date 12/6/01 Checked By MPS Date 12-13-01

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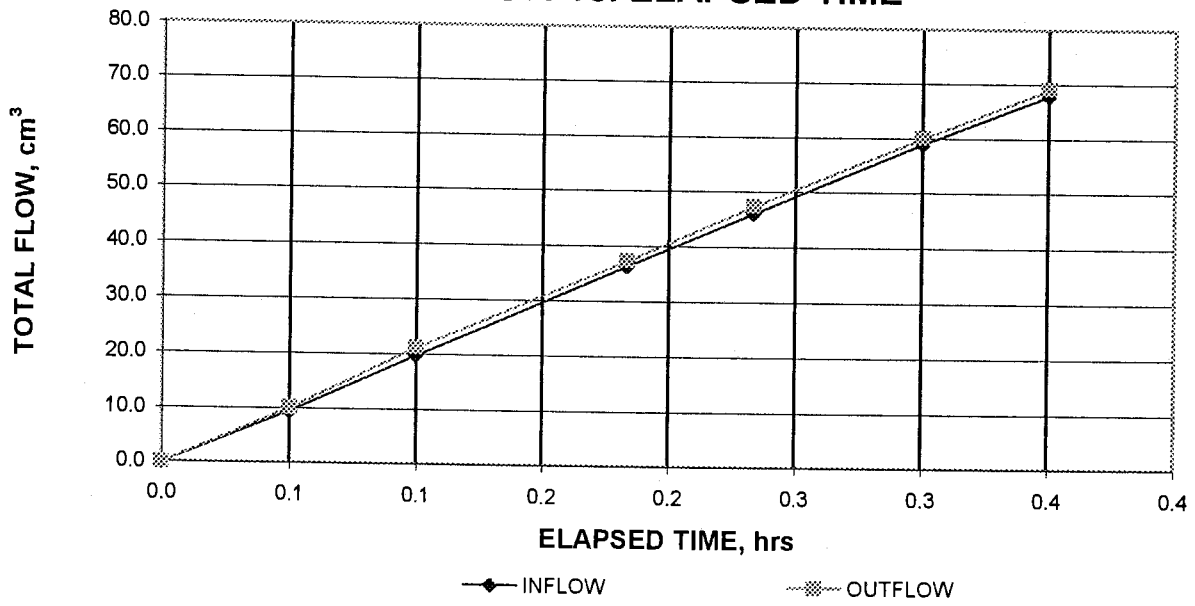
PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

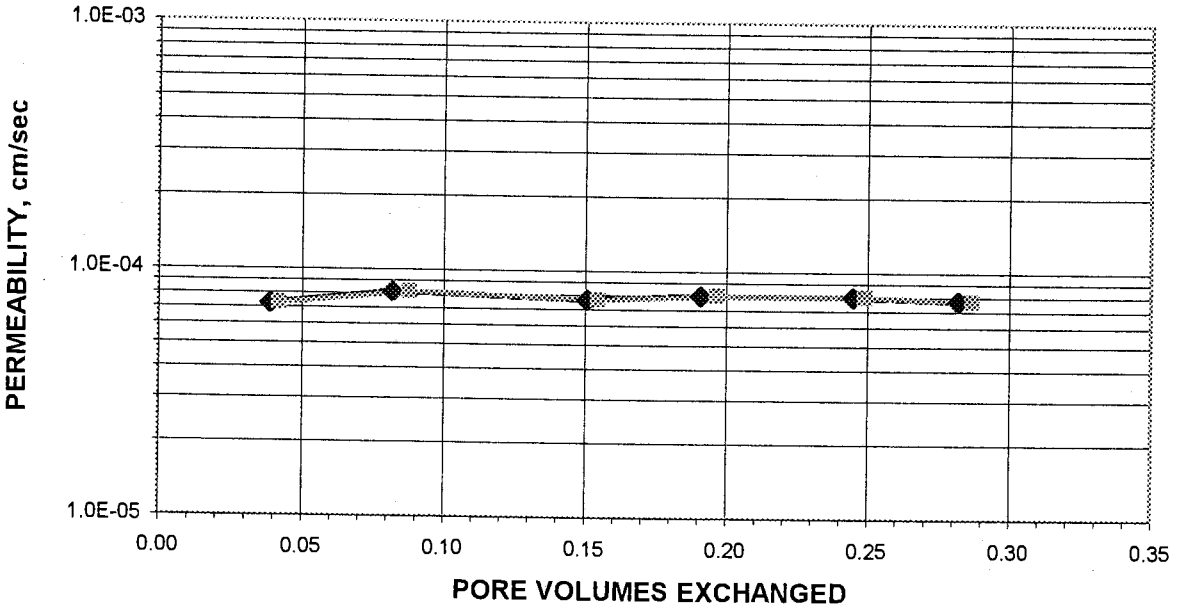
Client	MESCO	Boring No.	CD-7
Client Project	IREDELL CO. C&D LF	Depth (ft.)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.04		

AVERAGE PERMEABILITY = 7.8E-05 cm/sec @ 20°C
AVERAGE PERMEABILITY = 7.8E-07 m/sec @ 20°C

TOTAL FLOW vs. ELAPSED TIME



PORE VOLUMES EXCHANGED vs. PERMEABILITY



Tested By: DAJ Date: 11/30/01 Checked By: MPS Date: 12-13-01

DCN: CT-22 DATE: 01-08-99 REVISION:2 C:\2001 Projects\R01034\[R01034-01.04 Mesco.xls]Sheet1
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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-7
Client Project	IREDELL CO. C&D LF	Depth (ft.)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.04		
		Specific Gravity	2.79 Measured
		Sample Condition	Undisturbed

Visual Description: LIGHT BROWN-SOME WHITE, SANDY SILT.

MOISTURE CONTENT:	BEFORE TEST	AFTER TEST
Tare Number	Z-14	G-4
Wt. of Tare & WS (gm.)	370.42	1018.70
Wt. of Tare & DS (gm.)	306.61	791.30
Wt. of Tare (gm.)	100.61	153.71
Wt. of Water (gm.)	63.81	227.40
Wt. of DS (gm.)	206.00	637.59
Moisture Content (%)	**31.0**	**35.7**

SPECIMEN:	BEFORE TEST	AFTER TEST
Wt. of Tube & WS (gm.)	844.30	NA
Wt. of Tube (gm.)	0.00	NA
Wt. of WS (gm.)	844.30	874.53
Length 1 (in.)	4.517	4.496
Length 2 (in.)	4.546	4.450
Length 3 (in.)	4.523	4.493
Top Diameter (in.)	2.870	2.855
Middle Diameter (in.)	2.852	2.869
Bottom Diameter (in.)	2.871	2.859
Average Length (in.)	4.53	4.48
Average Area ($in.^2$)	6.44	6.43
Sample Volume (cm^3)	478.13	471.71
Unit Wet Wt. ($gm./cm^3$)	1.77	1.85
Unit Wet Wt. (pcf)	110.2	115.7
Unit Dry Wt. (pcf)	84.2	85.3
Unit Dry Wt. ($gm./cm^3$)	1.35	1.37
Void Ratio, e	1.07	1.04
Porosity, n	0.52	0.51
Pore Volume (cm^3)	247.1	240.7

Tested By: DAJ Date: 11/30/01 Checked By: MMS Date: 12-12-01

DCN: CT-22 DATE: 01-08-99 REVISION:2 C:\2001 Projects\R01034\[R01034-01.04 Mesco.xls]Sheet1
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PERMEABILITY TEST

ASTM D 5084-90(Reapproved 1997)
(SOP-S22A & S22B)

Geotechnics

Client	MESCO	Boring No.	CD-7
Client Project	IREDELL CO. C&D LF	Depth (ft.)	7.0 - 9.15
Project No.	R01034-01 (G01026.0)	Sample No.	NA
Lab ID No.	R01034-01.04		

Pressure Heads (Constant)

Top Cap (psi)	57.4
Bottom Cap (psi)	60.0
Cell (psi)	70.0
Total Pressure Head (cm)	182.8
Hydraulic Gradient	16.07

Final Sample Dimensions

Sample Length (cm), L	11.38
Sample Diameter (cm)	7.27
Sample Area (cm^2), A	41.46
Inflow Burette Area (cm^2), a-in	4.426
Outflow Burette Area (cm^2), a-out	4.873
B Parameter (%)	99

AVERAGE PERMEABILITY = 7.8E-05 cm/sec @ 20°C
AVERAGE PERMEABILITY = 7.8E-07 m/sec @ 20°C

DATE	TIME		ELAPSED TIME t	TOTAL INFLOW	TOTAL OUTFLOW	TOTAL HEAD h	FLOW (0 flow)	TEMP.	INCREMENTAL PERMEABILITY @ 20°C
(mm/dd/yy)	(hr)	(min)	(hr)	(cm^3)	(cm^3)	(cm)	(1 stop)	(°C)	(cm/sec)
12/3/01	11	8	0.0	0.0	0.0	206.3	0	20.1	NA
12/3/01	11	11	0.1	9.4	10.1	202.1	0	20.1	7.3E-05
12/3/01	11	14	0.1	19.8	21.2	197.4	0	20.1	8.2E-05
12/3/01	11	19	0.2	36.3	37.2	190.4	0	20.1	7.7E-05
12/3/01	11	22	0.2	46.0	47.3	186.2	0	20.1	8.0E-05
12/3/01	11	26	0.3	58.9	59.9	180.7	0	20.1	7.9E-05
12/3/01	11	29	0.4	67.9	69.0	176.8	1	20.1	7.7E-05

Tested By: DAJ Date: 11/30/01 Checked By: MHS Date: 12-13-01

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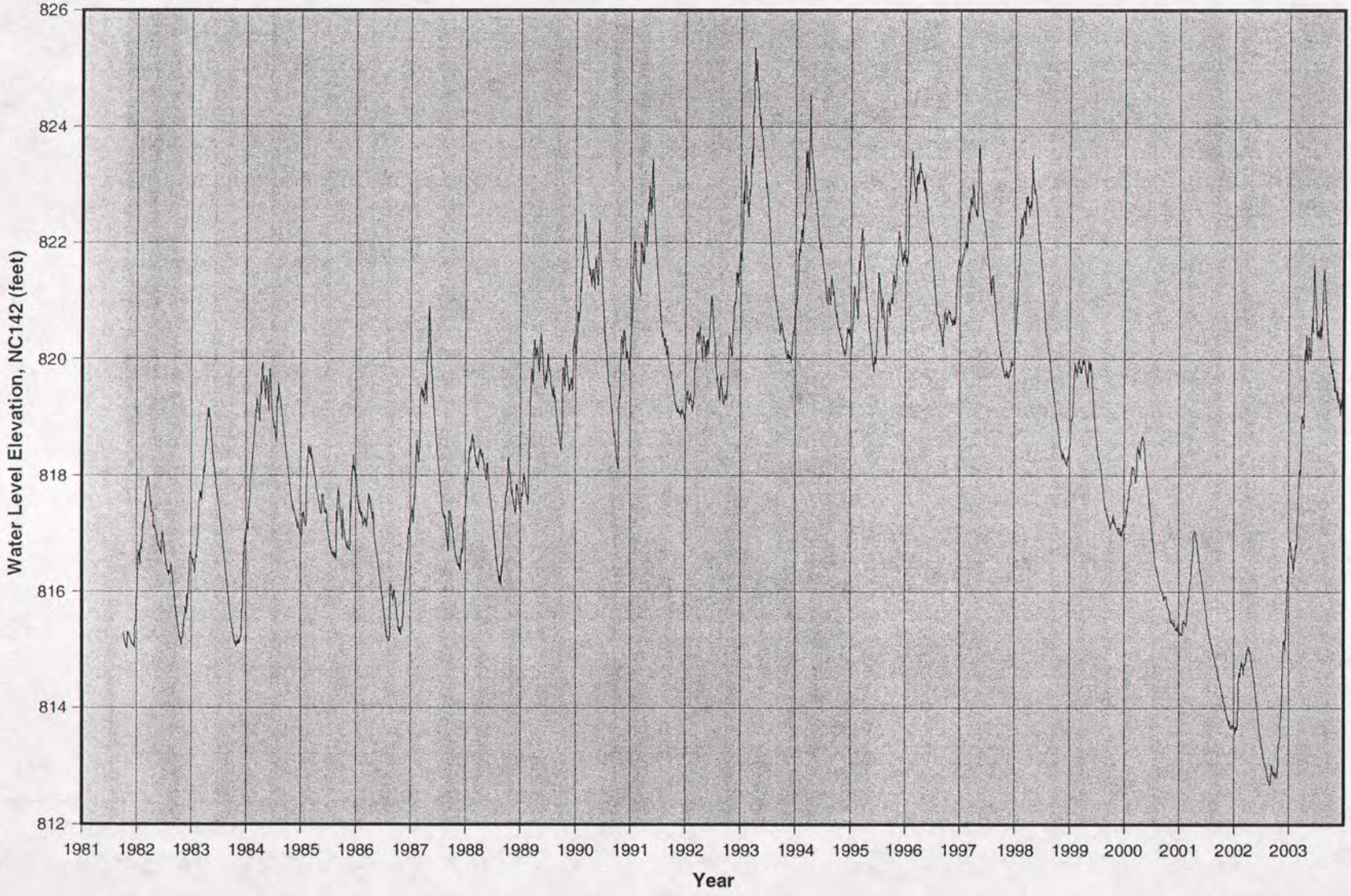
APPENDIX D

APPENDIX D

Figure D-1. Daily water level, USGS NC-142, Mocksville (Davie County), North Carolina



NOTE

1. Data provided by the USGS for the period of October 1, 1981 through December 17, 2003. All data after December 30, 2003 are provisional, and are subject to revision.
2. Water level elevations were calculated from the elevation of the datum, which is 836 feet above mean sea level.

Table D-1. Average water table elevation by month, NC-142

Month	Total	Day Count	Daily Average Depth	Daily Average Elevation	Std. Dev.	Std. Err.
JAN	11278.80	650	17.35	**818.65**	2.39	0.09
FEB	9580.10	574	16.69	**819.31**	2.48	0.10
MAR	10937.51	679	16.11	**819.89**	2.44	0.09
APR	10529.39	660	15.95	**820.05**	2.44	0.10
MAY	11013.55	680	16.20	**819.80**	2.50	0.10
JUN	10954.98	657	16.67	**819.33**	2.48	0.10
JUL	11795.04	681	17.32	**818.68**	2.41	0.09
AUG	11491.12	649	17.71	**818.29**	2.41	0.09
SEP	11310.19	630	17.95	**818.05**	2.28	0.09
OCT	12494.25	688	18.16	**817.84**	2.38	0.09
NOV	12240.17	676	18.11	**817.89**	2.31	0.09
DEC	12394.19	697	17.78	**818.22**	2.22	0.08

NOTE

1. All tabulated water level data are in units of feet.
2. Figures under column *Day Count* represent the numbers of days for the respective months.
3. An average daily depth represents the depth to the water table below datum, which is 836 feet above mean sea level.
4. Both the standard deviation and the standard error for a month are associated with either the daily average water table elevation for the respective month.

Figure D-2. Average water table elevation by month, NC-142

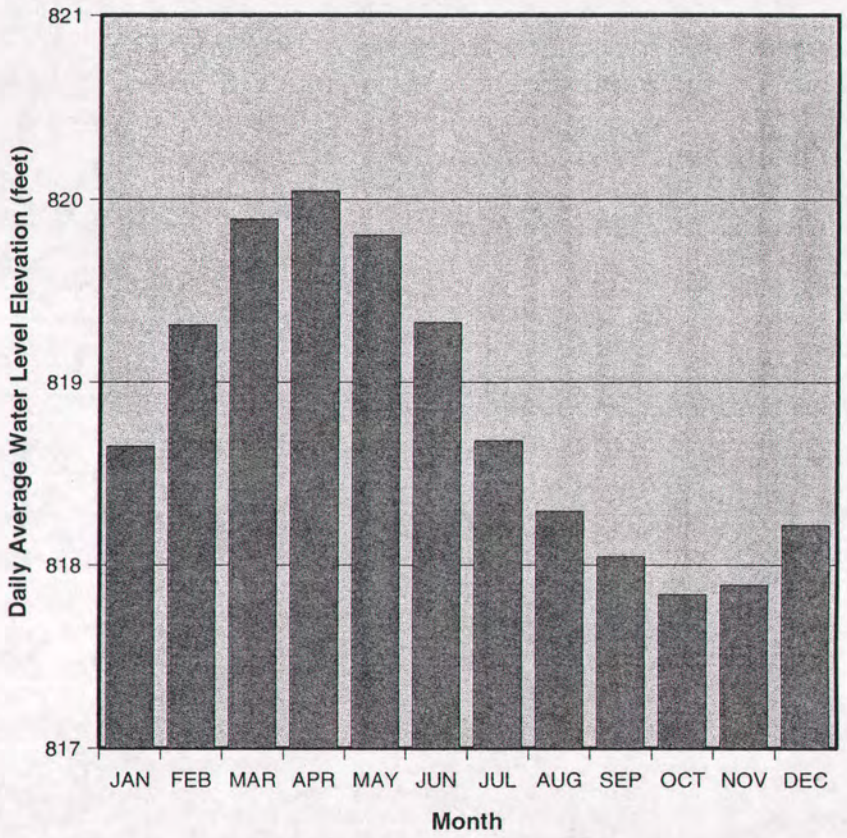
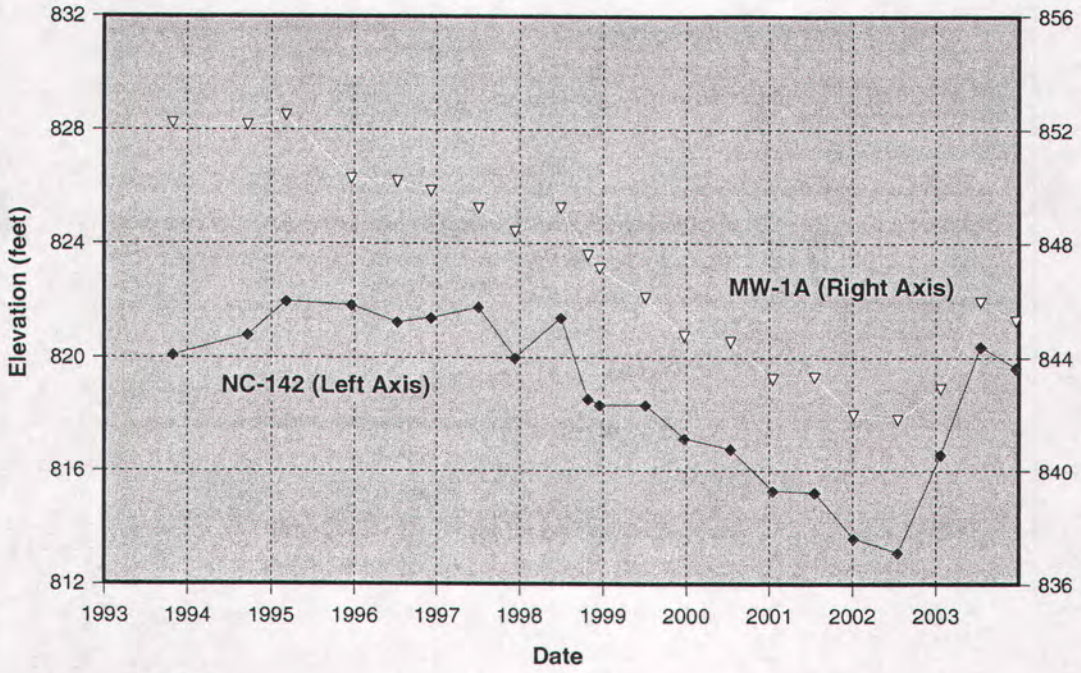


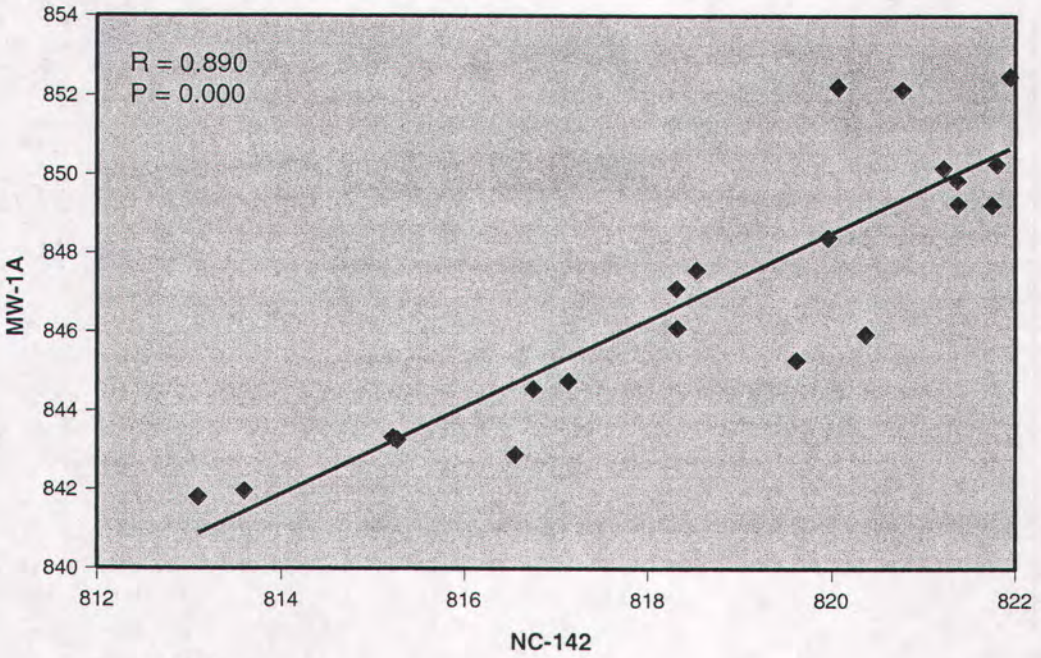
Figure D-3. Hydrograph, NC-142 and MW-1A



NOTE

1. Although water levels are recorded daily in NC-142, only a subset of the data is used in order to match the measurement dates of MW-1A.

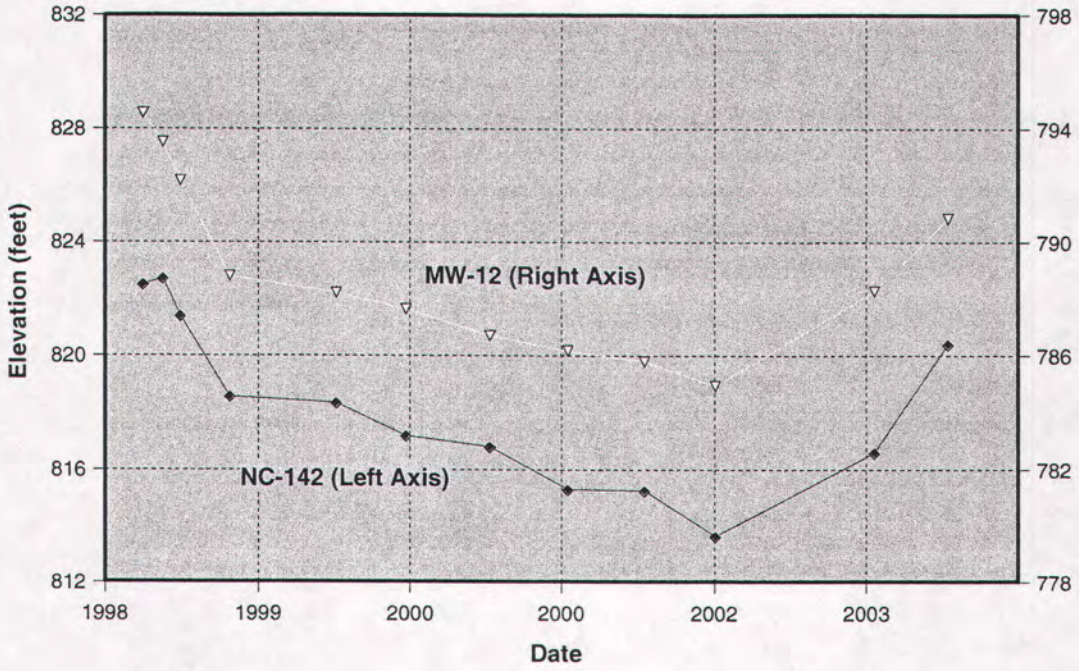
Figure D-4. Scatterplot, NC-142 and MW-1A



NOTE

1. The displayed R and P represent the correlation coefficient (Section 4.5.1) and the probability value (Section 4.5.2) of the compared pair.

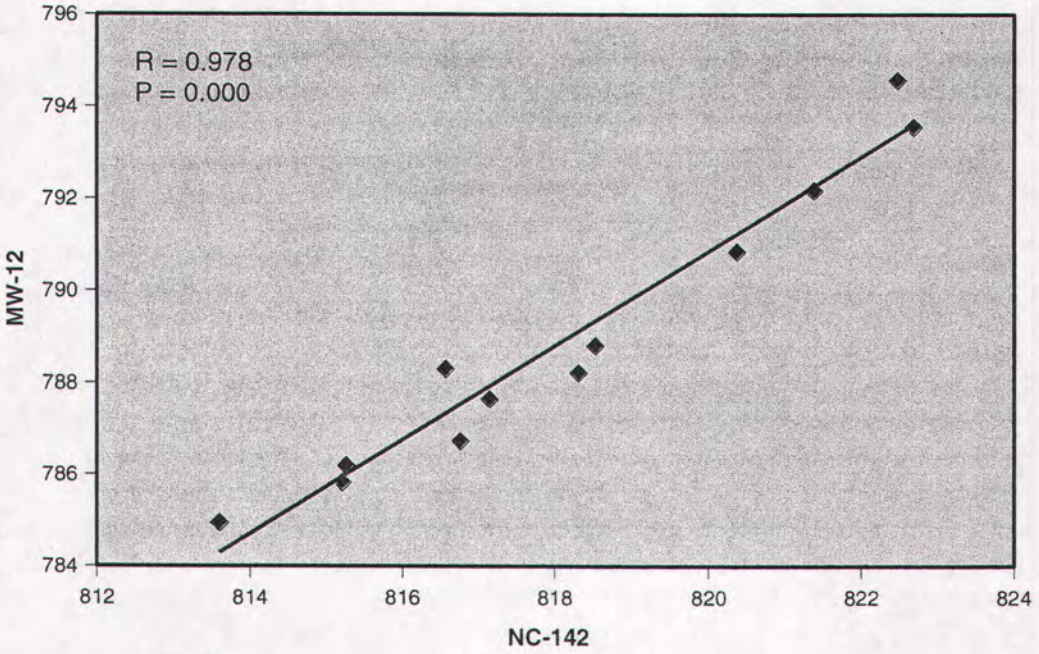
Figure D-5. Hydrograph, NC-142 and MW-12



NOTE

1. Although water levels are recorded daily in NC-142, only a subset of the data is used in order to match the measurement dates of MW-12.

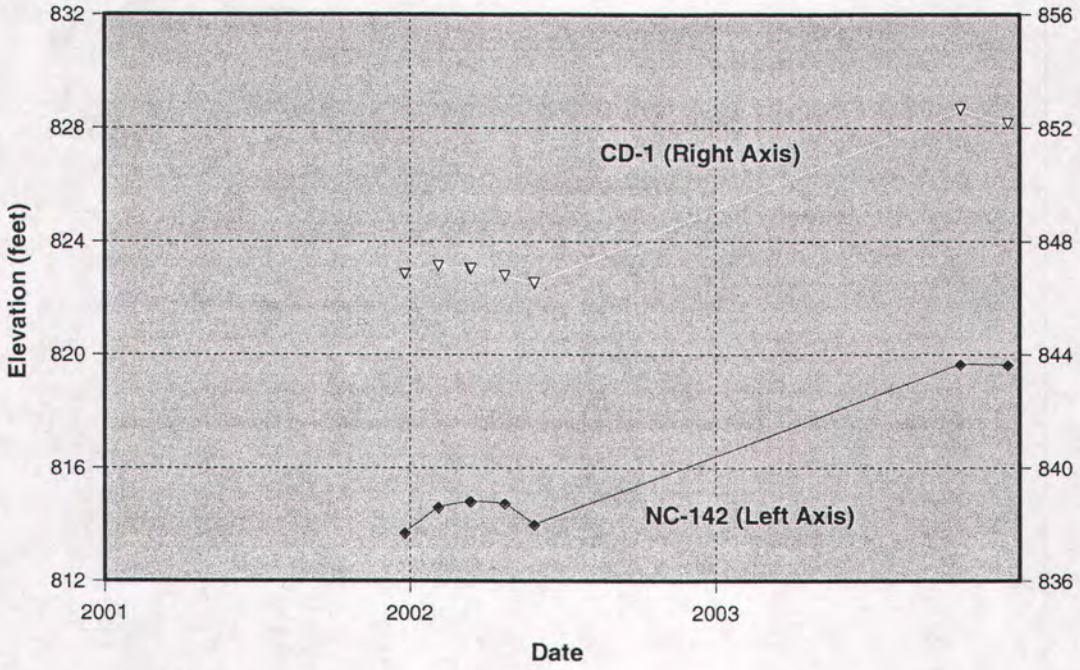
Figure D-6. Scatterplot, NC-142 and MW-12



NOTE

1. The displayed R and P represent the correlation coefficient (Section 4.5.1) and the probability value (Section 4.5.2) of the compared pair.

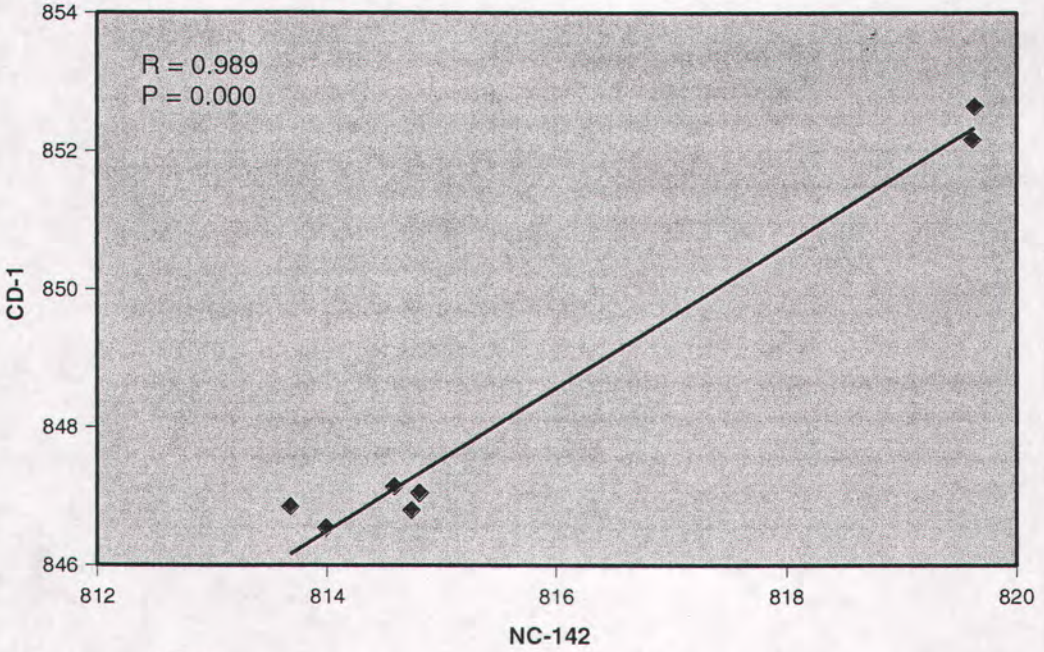
Figure D-7. Hydrograph, NC-142 and CD-1



NOTE

1. Although water levels are recorded daily in NC-142, only a subset of the data is used in order to match the measurement dates of CD-1.

Figure D-8. Scatterplot, NC-142 and CD-1



NOTE

1. The displayed R and P represent the correlation coefficient (Section 4.5.1) and the probability value (Section 4.5.2) of the compared pair.

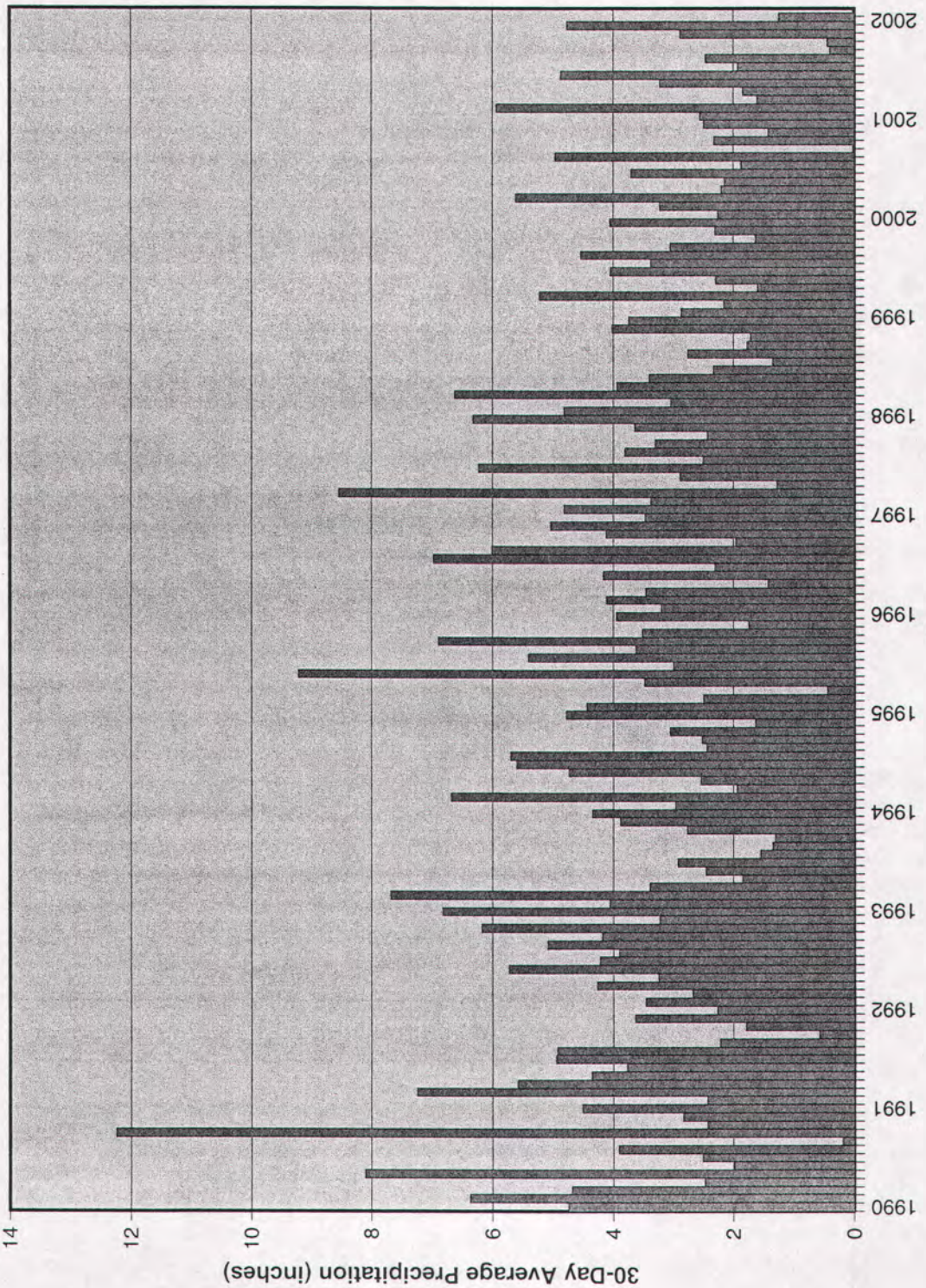


Figure D-9. Monthly average precipitation, Statesville 2 NNE, Iredell County, North Carolina

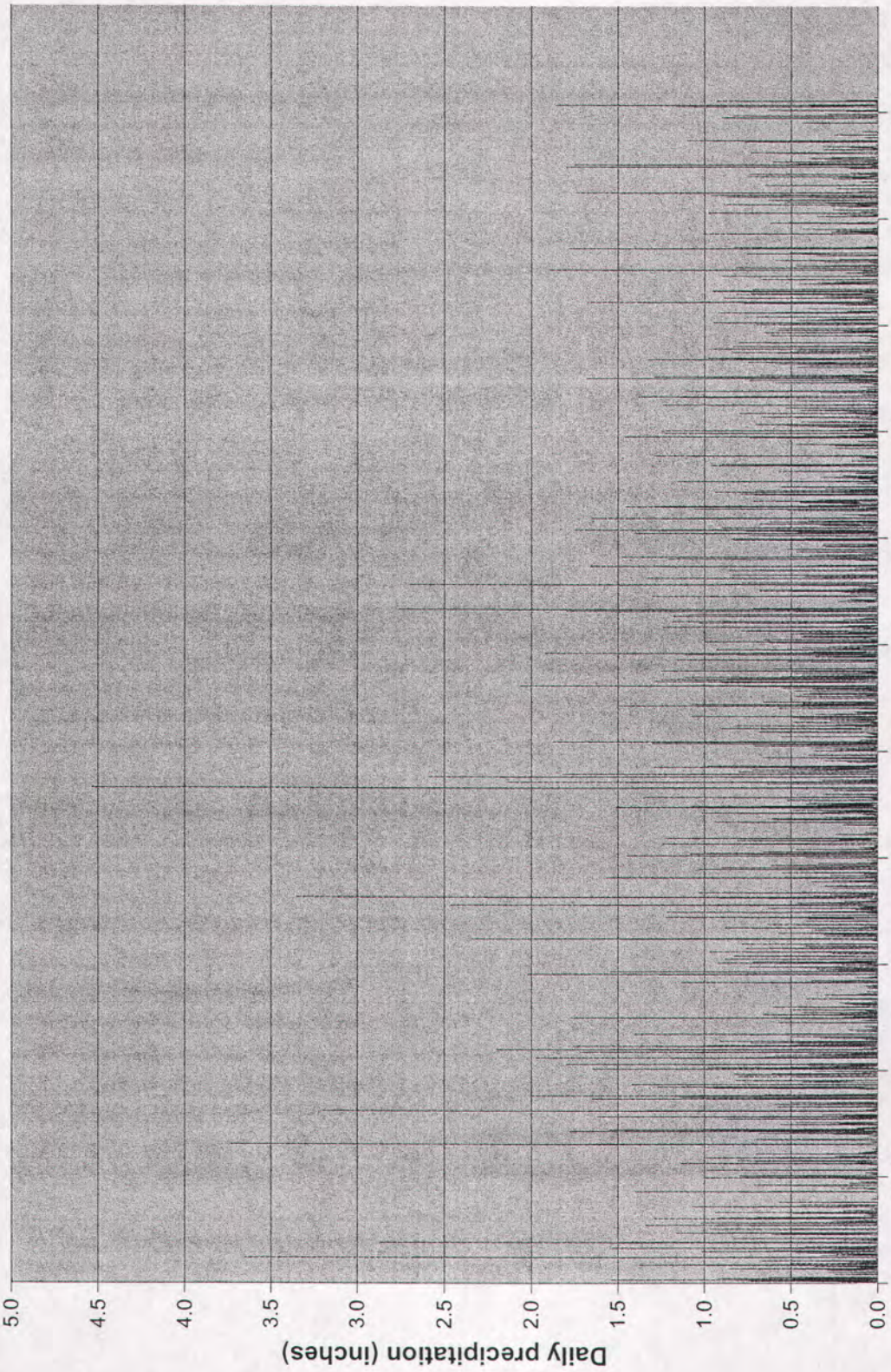
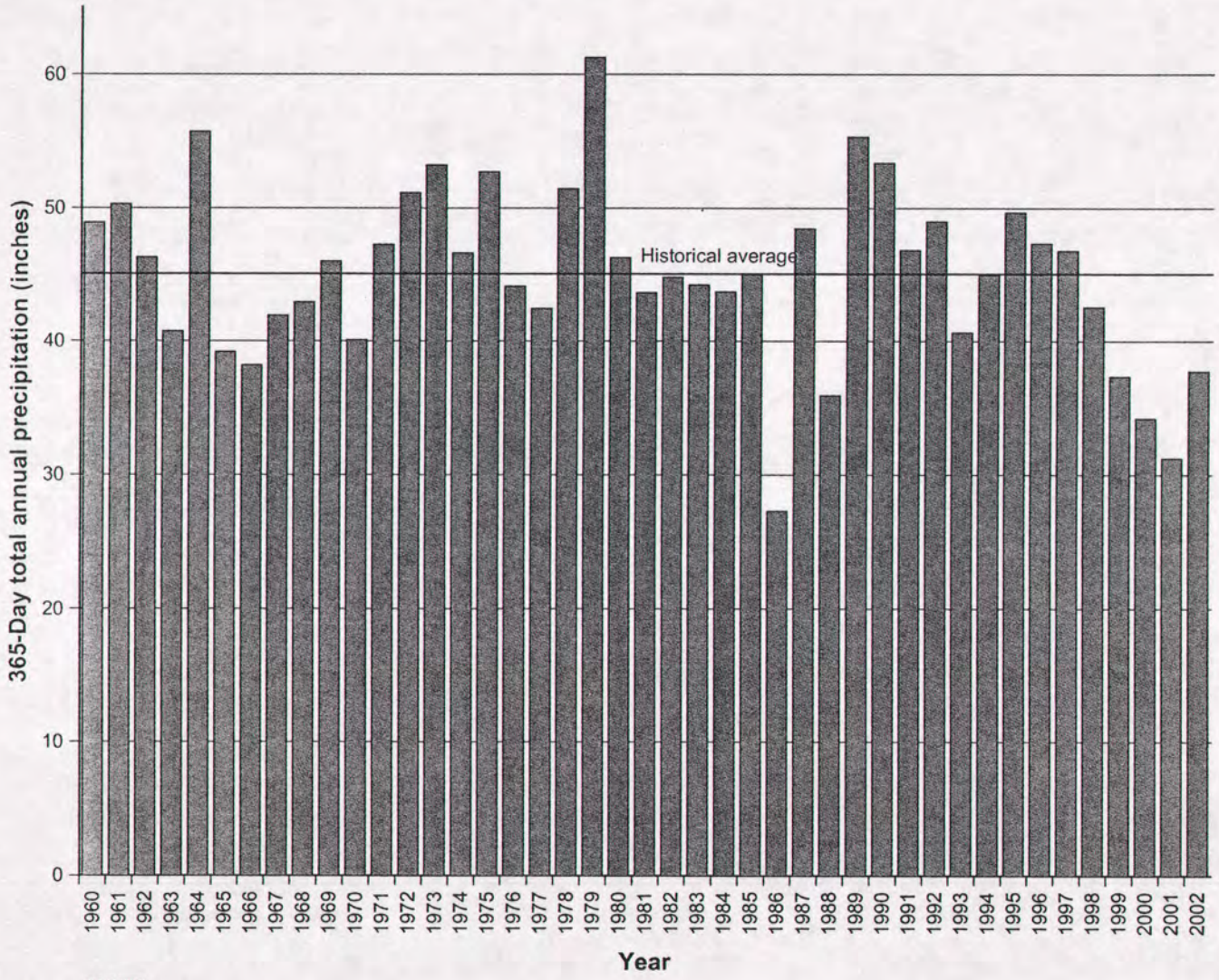


Figure D-10. Daily precipitation, Statesville 2 NNE, Iredell County, North Carolina

Figure D-11. Annual precipitation, Statesville 2 NNE, Iredell County, North Carolina



Year	365-Day Total
1960	48.93
1961	50.32
1962	46.30
1963	40.74
1964	55.71
1965	39.20
1966	38.18
1967	41.94
1968	42.93
1969	46.01
1970	40.08
1971	47.28
1972	51.15
1973	53.23
1974	46.64
1975	52.72
1976	44.12
1977	42.45
1978	51.48
1979	61.24
1980	46.27
1981	43.63
1982	44.79
1983	44.25
1984	43.72
1985	45.06
1986	27.29
1987	48.46
1988	35.91
1989	55.32
1990	53.37
1991	46.85
1992	49.02
1993	40.66
1994	44.97
1995	49.69
1996	47.35
1997	46.80
1998	42.57
1999	37.34
2000	34.20
2001	31.22
2002	37.74

NOTE

1. All precipitation amounts are quantified in inches.
2. The 365-Day annual total precipitation for a year was calculated by multiplying the daily average by 365 in order to factor out the inconsistent numbers of days in leap years.
3. The "historical average" line in the above graph indicates the average over the period between 1960 and 2002.

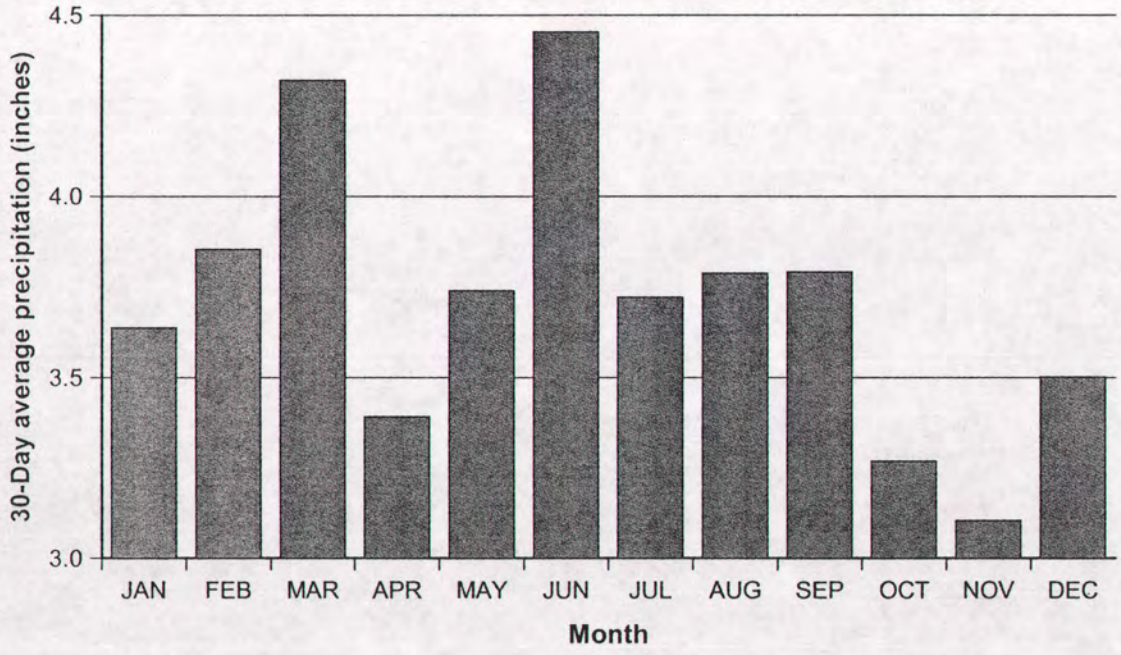
Table D-2. Precipitation statistics by month, Statesville 2 NNE, Iredell County, North Carolina

Month	Total	Count	Average	Std. Dev.	Std. Err.	30-Day Average	30-Day Std. Dev.	30-Day Std. Err.
JAN	5.21	43	0.121	0.034	0.0002	3.637	1.005	0.005
FEB	5.52	43	0.128	0.034	0.0002	3.854	1.032	0.005
MAR	6.05	42	0.144	0.044	0.0003	4.322	1.314	0.009
APR	4.75	42	0.113	0.033	0.0002	3.393	0.996	0.005
MAY	5.24	42	0.125	0.034	0.0002	3.740	1.033	0.005
JUN	6.24	42	0.149	0.036	0.0002	4.455	1.067	0.006
JUL	5.21	42	0.124	0.034	0.0002	3.721	1.008	0.005
AUG	5.18	41	0.126	0.032	0.0002	3.787	0.968	0.005
SEP	5.31	42	0.126	0.035	0.0002	3.790	1.046	0.006
OCT	4.58	42	0.109	0.032	0.0002	3.269	0.975	0.005
NOV	4.35	42	0.103	0.032	0.0002	3.105	0.956	0.005
DEC	4.90	42	0.117	0.033	0.0002	3.502	1.005	0.005

NOTE

1. All figures presented in the table except for the counts are in units of inches.
2. Figures in column Total represent the cumulative sums of the monthly average precipitations for the measurement period.
3. Figures in column Average represent the average daily precipitations for the respective months.
4. The 30-day averages are calculated by multiplying the daily average by 30 in order to factor out the inconsistent numbers of days in some months of a year.

Figure D-12. Precipitation statistics by month, Statesville 2 NNE, Iredell County, North Carolina



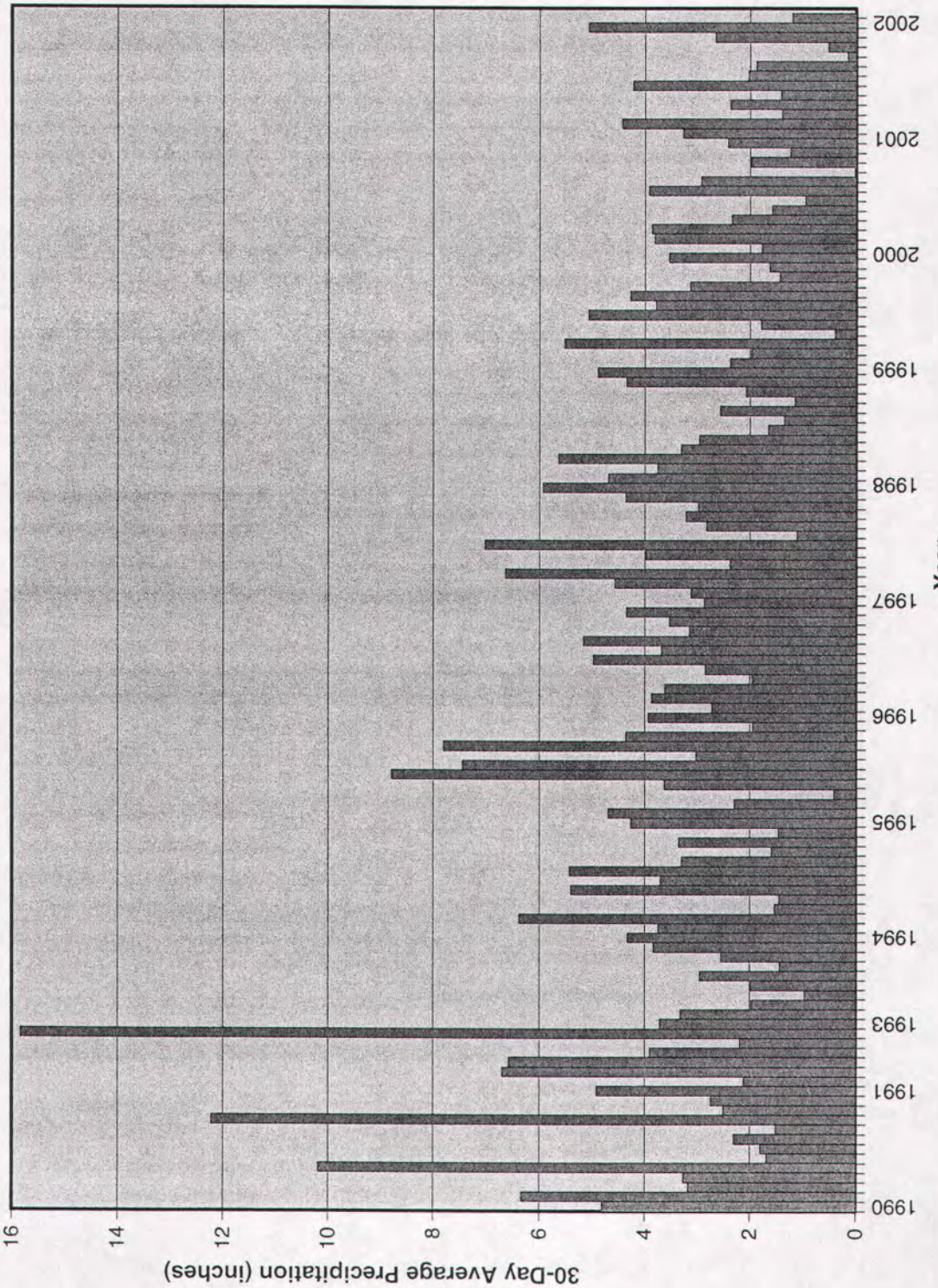


Figure D-13. Monthly average precipitation, Mocksville 5 SE, Davie County, North Carolina

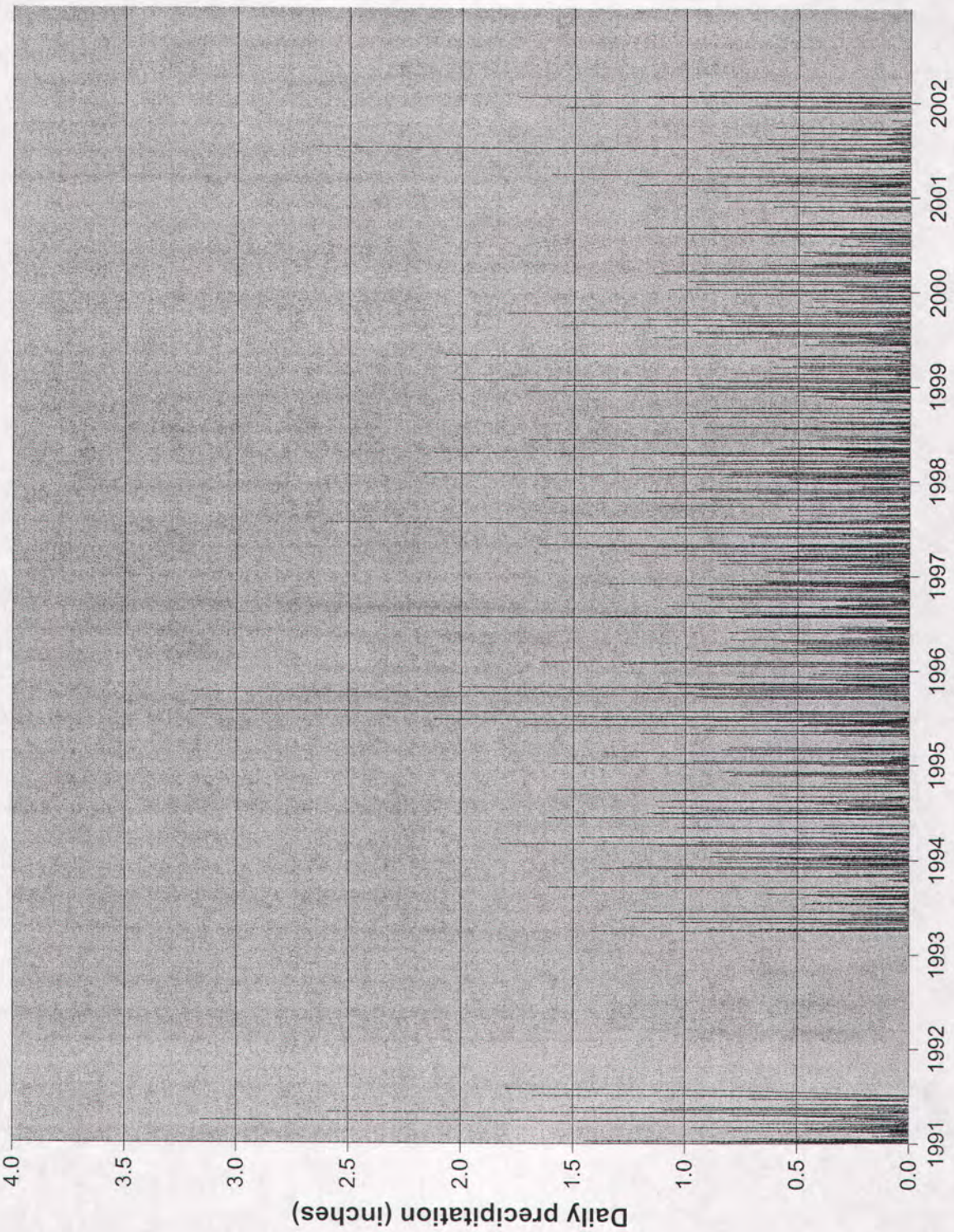
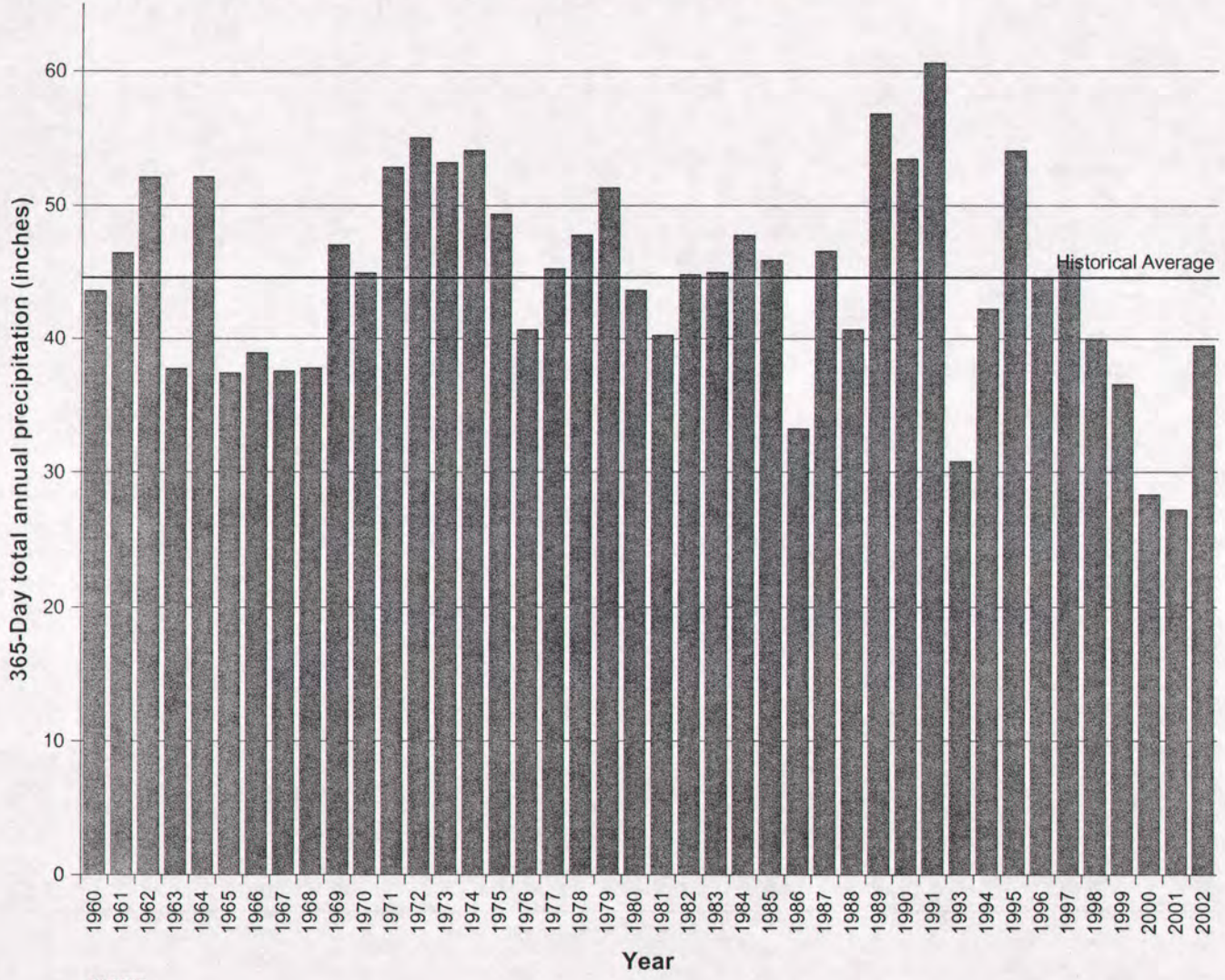


Figure D-14. Daily precipitation, Mocksville 5 SE, Iredell County, North Carolina

Figure D-15. Annual precipitation, Mocksville 5 SE, Davie County, North Carolina



Year	365-Day Total
1960	43.59
1961	46.45
1962	52.11
1963	37.75
1964	52.12
1965	37.42
1966	38.92
1967	37.58
1968	37.80
1969	47.03
1970	44.94
1971	52.83
1972	55.03
1973	53.17
1974	54.10
1975	49.37
1976	40.66
1977	45.27
1978	47.76
1979	51.29
1980	43.63
1981	40.26
1982	44.82
1983	44.98
1984	47.74
1985	45.91
1986	33.24
1987	46.57
1988	40.67
1989	56.82
1990	53.42
1991	60.59
1993	30.79
1994	42.23
1995	54.06
1996	44.53
1997	45.80
1998	39.87
1999	36.57
2000	28.34
2001	27.21
2002	39.47

NOTE

1. All precipitation amounts are quantified in inches.
2. The 365-Day annual total precipitation for a year was calculated by multiplying the daily average by 365 in order to factor out the inconsistent numbers of days in leap years.
3. The "historical average" line in the above graph indicates the average over the period between 1960 and 2002.

Table D-3. Precipitation statistics by month, Mocksville 5 SE, Davie County, North Carolina

Month	Total	Count	Average	Std. Dev.	Std. Err.	30-Day Average	30-Day Std. Dev.	30-Day Std. Err.
JAN	5.12	41	0.125	0.035	0.0002	3.749	1.058	0.006
FEB	5.10	41	0.124	0.035	0.0002	3.734	1.054	0.006
MAR	5.66	40	0.141	0.079	0.0010	4.244	2.384	0.030
APR	4.54	41	0.111	0.034	0.0002	3.322	1.012	0.005
MAY	5.35	41	0.130	0.035	0.0002	3.912	1.061	0.006
JUN	5.58	41	0.136	0.037	0.0002	4.085	1.101	0.006
JUL	5.76	41	0.141	0.035	0.0002	4.216	1.045	0.006
AUG	4.54	39	0.116	0.034	0.0002	3.493	1.016	0.006
SEP	4.92	40	0.123	0.036	0.0002	3.690	1.074	0.006
OCT	4.68	40	0.117	0.035	0.0002	3.511	1.045	0.006
NOV	3.88	40	0.097	0.032	0.0002	2.910	0.972	0.005
DEC	4.36	40	0.109	0.034	0.0002	3.272	1.014	0.005

NOTE

1. All figures presented in the table except for the counts are in units of inches.
2. Figures in column Total represent the cumulative sums of the monthly average precipitations for the measurement period.
3. Figures in column Average represent the average daily precipitations for the respective months.
4. The 30-day averages are calculated by multiplying the daily average by 30 in order to factor out the inconsistent numbers of days in some months of a year.

Figure D-16. Precipitation statistics by month, Mocksville 5 SE, Davie County, North Carolina

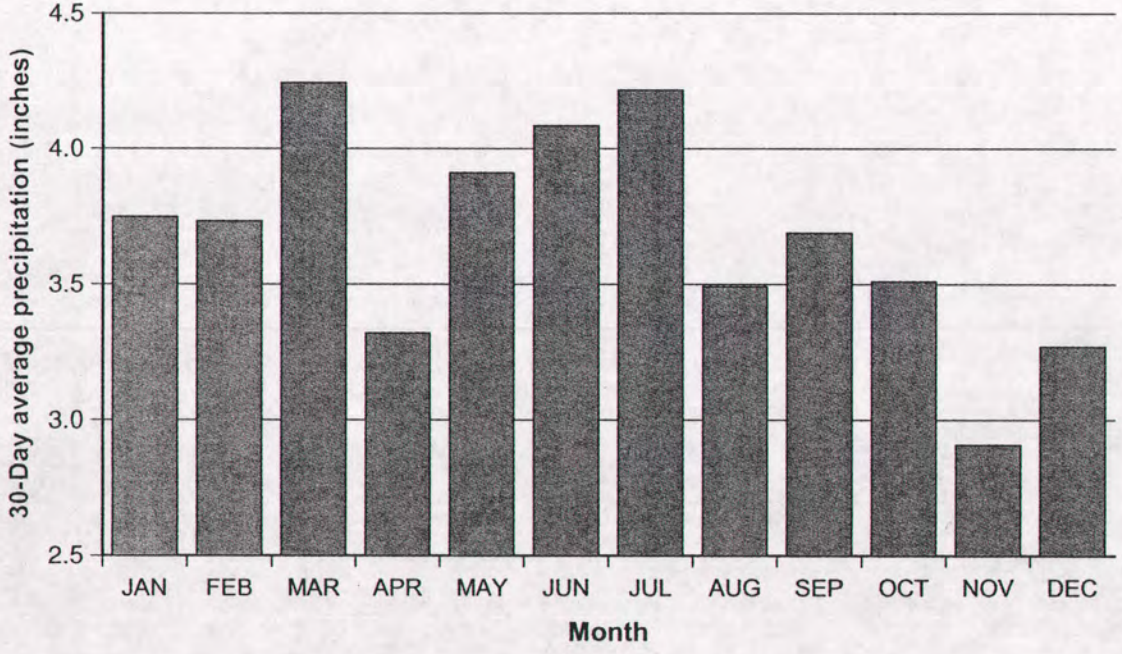


Table D-4. Monthly average precipitation at Statesville and Mocksville stations

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1960	1	31	0.15	4.52	1960	1	31	0.21	6.22	TRUE
1960	2	29	0.24	7.34	1960	2	29	0.24	7.22	TRUE
1960	3	31	0.18	5.55	1960	3	31	0.19	5.65	TRUE
1960	4	30	0.11	3.38	1960	4	30	0.13	4.01	TRUE
1960	5	31	0.14	4.22	1960	5	31	0.09	2.68	TRUE
1960	6	30	0.11	3.16	1960	6	30	0.19	5.83	TRUE
1960	7	31	0.12	3.54	1960	7	31	0.07	2.19	TRUE
1960	8	31	0.04	1.32	1960	8	31	0.08	2.46	TRUE
1960	9	30	0.15	4.44	1960	9	30	0.14	4.08	TRUE
1960	10	31	0.10	2.96	1960	10	31	0.17	5.21	TRUE
1960	11	30	0.04	1.30	1960	11	30	0.03	1.03	TRUE
1960	12	31	0.05	1.44	1960	12	31	0.06	1.85	TRUE
1961	1	31	0.09	2.57	1961	1	31	0.10	2.92	TRUE
1961	2	28	0.16	4.77	1961	2	28	0.22	6.61	TRUE
1961	3	31	0.13	3.98	1961	3	31	0.17	5.22	TRUE
1961	4	30	0.16	4.80	1961	4	30	0.15	4.35	TRUE
1961	5	31	0.10	3.06	1961	5	31	0.14	4.11	TRUE
1961	6	30	0.21	6.38	1961	6	30	0.19	5.61	TRUE
1961	7	31	0.12	3.54	1961	7	31	0.15	4.35	TRUE
1961	8	31	0.21	6.17	1961	8	31	0.18	5.51	TRUE
1961	9	30	0.01	0.37	1961	9	30	0.01	0.28	TRUE
1961	10	31	0.04	1.34	1961	10	31	0.02	0.75	TRUE
1961	11	30	0.09	2.55	1961	11	30	0.09	2.64	TRUE
1961	12	31	0.21	6.34	1961	12	31	0.25	7.40	TRUE
1962	1	31	0.19	5.85	1962	1	31	0.20	6.02	TRUE
1962	2	28	0.16	4.86	1962	2	27	0.15	4.64	FALSE
1962	3	31	0.09	2.81	1962	3	31	0.11	3.45	TRUE
1962	4	30	0.12	3.71	1962	4	30	0.11	3.16	TRUE
1962	5	31	0.11	3.40	1962	5	30	0.06	1.82	FALSE
1962	6	30	0.29	8.62	1962	6	30	0.23	6.88	TRUE
1962	7	31	0.15	4.62	1962	7	31	0.04	1.22	TRUE
1962	8	31	0.05	1.42	1962	8	31	0.06	1.93	TRUE
1962	9	30	0.17	5.21	1962	9	29	0.19	5.70	FALSE
1962	10	31	0.03	1.03	1962	10	30	0.04	1.34	FALSE
1962	11	30	0.22	6.55	1962	11	29	0.22	6.53	FALSE
1962	12	31	0.12	3.61	1962	12	31	0.11	3.33	TRUE
1963	1	31	0.09	2.76	1963	1	31	0.10	2.94	TRUE
1963	2	28	0.10	2.99	1963	2	28	0.11	3.18	TRUE
1963	3	31	0.24	7.07	1963	3	31	0.24	7.13	TRUE
1963	4	30	0.09	2.74	1963	4	30	0.14	4.20	TRUE
1963	5	31	0.10	2.91	1963	5	31	0.13	4.00	TRUE
1963	6	30	0.11	3.34	1963	6	29	0.10	3.05	FALSE
1963	7	31	0.14	4.08	1963	7	31	0.07	2.23	TRUE
1963	8	31	0.06	1.67	1963	8	31	0.08	2.48	TRUE
1963	9	30	0.12	3.72	1963	9	30	0.16	4.82	TRUE
1963	10	31	0.00	0.03	1963	10	31	0.00	0.03	TRUE
1963	11	30	0.14	4.06	1963	11	30	0.12	3.58	TRUE
1963	12	31	0.06	1.89	1963	12	31	0.09	2.59	TRUE
1964	1	31	0.16	4.88	1964	1	31	0.16	4.85	TRUE
1964	2	29	0.15	4.62	1964	2	29	0.13	3.84	TRUE
1964	3	31	0.10	2.95	1964	3	31	0.11	3.38	TRUE
1964	4	30	0.12	3.57	1964	4	30	0.17	5.24	TRUE
1964	5	31	0.03	0.93	1964	5	31	0.04	1.25	TRUE
1964	6	30	0.18	5.39	1964	6	30	0.22	6.58	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1964	7	31	0.23	6.96	1964	7	31	0.17	5.14	TRUE
1964	8	31	0.17	5.23	1964	8	31	0.19	5.72	TRUE
1964	9	30	0.03	0.95	1964	9	30	0.07	1.99	TRUE
1964	10	31	0.29	8.72	1964	10	31	0.32	9.47	TRUE
1964	11	30	0.09	2.79	1964	11	30	0.11	3.17	TRUE
1964	12	31	0.14	4.30	1964	12	31	0.14	4.23	TRUE
1965	1	31	0.07	2.07	1965	1	31	0.07	2.09	TRUE
1965	2	28	0.13	3.76	1965	2	28	0.13	3.95	TRUE
1965	3	31	0.21	6.15	1965	3	31	0.20	5.90	TRUE
1965	4	30	0.08	2.54	1965	4	30	0.11	3.26	TRUE
1965	5	31	0.05	1.65	1965	5	31	0.04	1.29	TRUE
1965	6	30	0.17	5.14	1965	6	30	0.18	5.54	TRUE
1965	7	31	0.15	4.59	1965	7	31	0.16	4.93	TRUE
1965	8	31	0.09	2.73	1965	8	31	0.15	4.44	TRUE
1965	9	30	0.08	2.42	1965	9	30	0.04	1.23	TRUE
1965	10	31	0.15	4.49	1965	10	31	0.14	4.11	TRUE
1965	11	30	0.04	1.13	1965	11	30	0.05	1.61	TRUE
1965	12	31	0.01	0.27	1965	12	31	0.01	0.34	TRUE
1966	1	31	0.13	3.87	1966	1	31	0.08	2.34	TRUE
1966	2	28	0.18	5.45	1966	2	28	0.25	7.59	TRUE
1966	3	31	0.10	2.90	1966	3	31	0.06	1.84	TRUE
1966	4	30	0.05	1.47	1966	4	30	0.05	1.40	TRUE
1966	5	31	0.19	5.61	1966	5	31	0.10	3.11	TRUE
1966	6	30	0.08	2.52	1966	6	30	0.10	2.89	TRUE
1966	7	31	0.07	2.16	1966	7	31	0.10	3.08	TRUE
1966	8	31	0.15	4.56	1966	8	31	0.14	4.28	TRUE
1966	9	30	0.13	3.88	1966	9	30	0.16	4.77	TRUE
1966	10	31	0.08	2.28	1966	10	31	0.09	2.83	TRUE
1966	11	30	0.05	1.35	1966	11	30	0.05	1.52	TRUE
1966	12	31	0.08	2.43	1966	12	31	0.08	2.39	TRUE
1967	1	31	0.08	2.40	1967	1	31	0.07	2.09	TRUE
1967	2	28	0.12	3.46	1967	2	28	0.13	3.88	TRUE
1967	3	31	0.06	1.86	1967	3	31	0.10	2.97	TRUE
1967	4	30	0.07	2.07	1967	4	30	0.05	1.54	TRUE
1967	5	31	0.15	4.43	1967	5	31	0.19	5.68	TRUE
1967	6	30	0.04	1.10	1967	6	30	0.08	2.47	TRUE
1967	7	31	0.14	4.19	1967	7	31	0.09	2.66	TRUE
1967	8	31	0.13	3.89	1967	8	31	0.20	5.98	TRUE
1967	9	30	0.13	3.84	1967	9	30	0.09	2.80	TRUE
1967	10	31	0.05	1.38	1967	10	31	0.06	1.83	TRUE
1967	11	30	0.05	1.50	1967	11	30	0.07	2.18	TRUE
1967	12	31	0.23	6.85	1967	12	31	0.24	7.17	TRUE
1968	1	31	0.14	4.15	1968	1	31	0.13	4.01	TRUE
1968	2	29	0.02	0.62	1968	2	29	0.02	0.66	TRUE
1968	3	31	0.15	4.53	1968	3	31	0.15	4.40	TRUE
1968	4	30	0.10	3.07	1968	4	30	0.11	3.39	TRUE
1968	5	31	0.11	3.39	1968	5	31	0.19	5.83	TRUE
1968	6	30	0.15	4.36	1968	6	30	0.09	2.70	TRUE
1968	7	31	0.07	2.02	1968	7	31	0.17	4.98	TRUE
1968	8	31	0.14	4.09	1968	8	31	0.09	2.76	TRUE
1968	9	30	0.02	0.62	1968	9	30	0.02	0.68	TRUE
1968	10	31	0.12	3.70	1968	10	31	0.13	4.00	TRUE
1968	11	30	0.14	4.22	1968	11	30	0.20	5.88	TRUE
1968	12	31	0.08	2.34	1968	12	31	0.09	2.83	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1969	1	31	0.09	2.64	1969	1	31	0.08	2.40	TRUE
1969	2	28	0.13	3.98	1969	2	28	0.16	4.66	TRUE
1969	3	31	0.14	4.20	1969	3	31	0.17	4.96	TRUE
1969	4	30	0.10	3.09	1969	4	30	0.12	3.63	TRUE
1969	5	31	0.11	3.27	1969	5	31	0.07	2.19	TRUE
1969	6	30	0.19	5.67	1969	6	30	0.15	4.46	TRUE
1969	7	31	0.15	4.46	1969	7	31	0.13	4.00	TRUE
1969	8	31	0.12	3.70	1969	8	31	0.10	2.93	TRUE
1969	9	30	0.21	6.27	1969	9	30	0.26	7.91	TRUE
1969	10	31	0.09	2.69	1969	10	31	0.08	2.48	TRUE
1969	11	30	0.05	1.38	1969	11	30	0.05	1.64	TRUE
1969	12	31	0.17	5.08	1969	12	30	0.14	4.30	FALSE
1970	1	31	0.07	2.25	1970	1	31	0.07	2.00	TRUE
1970	2	28	0.14	4.21	1970	2	28	0.13	3.96	TRUE
1970	3	31	0.12	3.54	1970	3	31	0.09	2.68	TRUE
1970	4	30	0.09	2.57	1970	4	30	0.14	4.06	TRUE
1970	5	31	0.13	3.97	1970	5	31	0.09	2.75	TRUE
1970	6	30	0.25	7.61	1970	6	30	0.11	3.18	TRUE
1970	7	31	0.08	2.28	1970	7	31	0.07	2.06	TRUE
1970	8	31	0.31	9.32	1970	8	31	0.35	10.41	TRUE
1970	9	30	0.03	0.88	1970	9	30	0.02	0.47	TRUE
1970	10	31	0.16	4.82	1970	10	31	0.16	4.69	TRUE
1970	11	30	0.04	1.27	1970	11	30	0.04	1.32	TRUE
1970	12	31	0.05	1.58	1970	12	31	0.06	1.87	TRUE
1971	1	31	0.08	2.51	1971	1	31	0.08	2.31	TRUE
1971	2	28	0.17	4.97	1971	2	27	0.17	5.17	FALSE
1971	3	31	0.11	3.36	1971	3	29	0.06	1.88	FALSE
1971	4	30	0.09	2.80	1971	4	30	0.09	2.70	TRUE
1971	5	31	0.26	7.94	1971	5	31	0.13	4.00	TRUE
1971	6	30	0.12	3.73	1971	6	30	0.12	3.45	TRUE
1971	7	31	0.21	6.18	1971	7	31	0.19	5.72	TRUE
1971	8	31	0.11	3.42	1971	8	31	0.07	2.25	TRUE
1971	9	30	0.13	3.80	1971	9	30	0.27	8.19	TRUE
1971	10	31	0.28	8.33	1971	10	31	0.20	6.00	TRUE
1971	11	30	0.09	2.73	1971	11	30	0.08	2.36	TRUE
1971	12	31	0.08	2.26	1971	12	30	0.09	2.64	FALSE
1972	1	31	0.10	3.02	1972	1	31	0.10	3.02	TRUE
1972	2	29	0.13	3.91	1972	2	27	0.09	2.72	FALSE
1972	3	31	0.13	3.94	1972	3	31	0.13	3.88	TRUE
1972	4	30	0.09	2.74	1972	4	30	0.07	2.07	TRUE
1972	5	31	0.28	8.29	1972	5	31	0.26	7.88	TRUE
1972	6	30	0.29	8.81	1972	6	30	0.34	10.22	TRUE
1972	7	31	0.08	2.37	1972	7	31	0.06	1.73	TRUE
1972	9	30	0.19	5.78	1972	9	30	0.06	1.88	TRUE
1972	10	31	0.11	3.33	1972	10	31	0.06	1.90	TRUE
1972	11	30	0.18	5.45	1972	11	30	0.16	4.82	TRUE
1972	12	31	0.18	5.27	1972	12	31	0.20	6.01	TRUE
1973	1	31	0.15	4.47	1973	1	31	0.12	3.49	TRUE
1973	2	28	0.10	2.99	1973	2	28	0.15	4.53	TRUE
1973	3	31	0.27	7.98	1973	3	31	0.25	7.58	TRUE
1973	4	30	0.21	6.37	1973	4	30	0.17	5.08	TRUE
1973	5	31	0.18	5.38	1973	5	31	0.18	5.53	TRUE
1973	6	30	0.18	5.32	1973	6	30	0.24	7.29	TRUE
1973	7	31	0.16	4.81	1973	7	31	0.10	2.99	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1973	8	31	0.10	2.88	1973	8	31	0.13	4.02	TRUE
1973	9	30	0.06	1.88	1973	9	30	0.06	1.75	TRUE
1973	10	31	0.09	2.71	1973	10	31	0.05	1.64	TRUE
1973	11	30	0.05	1.47	1973	11	30	0.05	1.55	TRUE
1973	12	31	0.20	5.96	1973	12	31	0.23	7.02	TRUE
1974	1	31	0.19	5.82	1974	1	31	0.17	5.12	TRUE
1974	2	28	0.11	3.44	1974	2	27	0.12	3.70	FALSE
1974	3	31	0.17	5.19	1974	3	31	0.15	4.58	TRUE
1974	4	30	0.09	2.77	1974	4	30	0.09	2.66	TRUE
1974	5	31	0.27	8.02	1974	5	31	0.20	5.87	TRUE
1974	6	30	0.12	3.74	1974	6	30	0.11	3.17	TRUE
1974	7	31	0.09	2.83	1974	7	31	0.05	1.38	TRUE
1974	8	31	0.17	5.20	1974	8	31	0.23	6.92	TRUE
1974	9	30	0.28	8.27	1974	9	30	0.14	4.10	TRUE
1974	10	31	0.03	0.80	1974	10	31	0.03	0.85	TRUE
1974	11	30	0.07	2.17	1974	11	30	0.11	3.40	TRUE
1974	12	31	0.17	4.99	1974	12	31	0.14	4.16	TRUE
1975	1	31	0.19	5.70	1975	1	31	0.15	4.39	TRUE
1975	2	28	0.14	4.14	1975	2	28	0.15	4.61	TRUE
1975	3	31	0.29	8.70	1975	3	31	0.28	8.28	TRUE
1975	4	30	0.07	2.14	1975	4	30	0.06	1.66	TRUE
1975	5	31	0.23	6.85	1975	5	31	0.21	6.37	TRUE
1975	6	30	0.08	2.35	1975	6	30	0.13	3.89	TRUE
1975	7	31	0.14	4.10	1975	7	31	0.23	7.03	TRUE
1975	8	31	0.02	0.48	1975	8	31	0.05	1.57	TRUE
1975	9	30	0.24	7.29	1975	9	30	0.14	4.18	TRUE
1975	10	31	0.08	2.43	1975	10	31	0.12	3.60	TRUE
1975	11	30	0.07	1.98	1975	11	30	0.08	2.47	TRUE
1975	12	31	0.08	2.46	1975	12	31	0.13	3.81	TRUE
1976	1	31	0.10	3.07	1976	1	31	0.06	1.95	TRUE
1976	2	29	0.06	1.87	1976	2	29	0.06	1.89	TRUE
1976	3	31	0.09	2.85	1976	3	31	0.10	3.07	TRUE
1976	4	30	0.02	0.65	1976	4	30	0.01	0.35	TRUE
1976	5	31	0.13	3.75	1976	5	31	0.23	6.77	TRUE
1976	6	30	0.25	7.36	1976	6	30	0.14	4.20	TRUE
1976	7	31	0.03	0.84	1976	7	31	0.02	0.75	TRUE
1976	8	31	0.08	2.49	1976	8	31	0.20	5.99	TRUE
1976	9	30	0.08	2.25	1976	9	30	0.14	4.34	TRUE
1976	10	31	0.28	8.28	1976	10	31	0.23	6.84	TRUE
1976	11	30	0.07	2.17	1976	11	30	0.07	2.14	TRUE
1976	12	31	0.15	4.39	1976	12	31	0.17	5.00	TRUE
1977	1	31	0.08	2.35	1977	1	31	0.07	2.14	TRUE
1977	2	28	0.06	1.75	1977	2	28	0.03	1.03	TRUE
1977	3	31	0.12	3.70	1977	3	31	0.13	3.87	TRUE
1977	4	30	0.11	3.39	1977	4	30	0.10	3.05	TRUE
1977	5	31	0.07	2.04	1977	5	31	0.06	1.94	TRUE
1977	6	30	0.05	1.58	1977	6	30	0.12	3.53	TRUE
1977	7	31	0.03	1.02	1977	7	31	0.03	0.83	TRUE
1977	8	31	0.21	6.38	1977	8	31	0.12	3.71	TRUE
1977	9	30	0.25	7.55	1977	9	30	0.24	7.34	TRUE
1977	10	31	0.21	6.27	1977	10	31	0.17	5.10	TRUE
1977	11	30	0.16	4.88	1977	11	30	0.21	6.35	TRUE
1977	12	31	0.12	3.64	1977	12	31	0.10	2.95	TRUE
1978	1	31	0.24	7.34	1978	1	31	0.30	9.01	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1978	2	28	0.01	0.40	1978	2	28	0.05	1.49	TRUE
1978	3	31	0.16	4.93	1978	3	31	0.17	5.11	TRUE
1978	4	30	0.11	3.35	1978	4	30	0.11	3.36	TRUE
1978	5	31	0.15	4.45	1978	5	31	0.11	3.19	TRUE
1978	6	30	0.11	3.24	1978	6	30	0.14	4.31	TRUE
1978	7	31	0.19	5.83	1978	7	31	0.18	5.44	TRUE
1978	8	31	0.16	4.85	1978	8	31	0.10	3.08	TRUE
1978	9	30	0.09	2.84	1978	9	30	0.16	4.74	TRUE
1978	10	31	0.06	1.70	1978	10	31	0.05	1.63	TRUE
1978	11	30	0.11	3.23	1978	11	30	0.10	3.09	TRUE
1978	12	31	0.15	4.52	1978	12	31	0.20	6.02	TRUE
1979	1	31	0.18	5.47	1979	1	31	0.20	5.99	TRUE
1979	2	28	0.20	5.98	1979	2	28	0.19	5.55	TRUE
1979	3	31	0.16	4.81	1979	3	31	0.15	4.43	TRUE
1979	4	30	0.12	3.67	1979	4	30	0.13	4.00	TRUE
1979	5	31	0.17	5.10	1979	5	31	0.19	5.69	TRUE
1979	6	30	0.19	5.67	1979	6	30	0.23	6.87	TRUE
1979	7	31	0.10	2.86	1979	7	31	0.18	5.45	TRUE
1979	8	31	0.08	2.54	1979	8	31	0.15	4.40	TRUE
1979	9	30	0.23	6.82	1979	9	30	0.37	10.95	TRUE
1979	10	31	0.09	2.78	1979	10	31	0.07	2.14	TRUE
1979	11	30	0.13	4.02	1979	11	30	0.13	3.94	TRUE
1979	12	31	0.04	1.15	1979	12	31	0.04	1.22	TRUE
1980	1	31	0.15	4.56	1980	1	31	0.15	4.47	TRUE
1980	2	29	0.05	1.45	1980	2	29	0.06	1.70	TRUE
1980	3	31	0.23	6.95	1980	3	31	0.23	6.75	TRUE
1980	4	30	0.10	2.85	1980	4	30	0.11	3.42	TRUE
1980	5	31	0.15	4.46	1980	5	31	0.12	3.72	TRUE
1980	6	30	0.11	3.32	1980	6	30	0.15	4.57	TRUE
1980	7	31	0.18	5.54	1980	7	31	0.14	4.16	TRUE
1980	8	31	0.03	0.89	1980	8	31	0.14	4.18	TRUE
1980	9	30	0.19	5.73	1980	9	30	0.18	5.38	TRUE
1980	10	31	0.11	3.21	1980	10	31	0.10	3.15	TRUE
1980	11	30	0.10	3.09	1980	11	30	0.11	3.16	TRUE
1980	12	31	0.03	0.87	1980	12	31	0.03	0.89	TRUE
1981	1	31	0.02	0.52	1981	1	31	0.03	0.90	TRUE
1981	2	28	0.11	3.26	1981	2	28	0.11	3.39	TRUE
1981	3	31	0.10	3.04	1981	3	31	0.10	2.90	TRUE
1981	4	30	0.03	0.93	1981	4	30	0.04	1.11	TRUE
1981	5	31	0.14	4.33	1981	5	31	0.12	3.71	TRUE
1981	6	30	0.15	4.54	1981	6	30	0.33	9.87	TRUE
1981	7	31	0.15	4.45	1981	7	31	0.14	4.11	TRUE
1981	8	31	0.07	2.19	1981	8	31	0.06	1.88	TRUE
1981	9	30	0.19	5.55	1981	9	30	0.15	4.64	TRUE
1981	10	31	0.15	4.41	1981	10	31	0.13	3.93	TRUE
1981	11	30	0.03	0.87	1981	11	30	0.04	1.11	TRUE
1981	12	31	0.19	5.57	1981	12	31	0.18	5.55	TRUE
1982	1	31	0.14	4.12	1982	1	31	0.12	3.72	TRUE
1982	2	28	0.18	5.49	1982	2	28	0.18	5.48	TRUE
1982	3	31	0.06	1.68	1982	3	31	0.06	1.86	TRUE
1982	4	30	0.10	2.90	1982	4	30	0.11	3.43	TRUE
1982	5	31	0.11	3.45	1982	5	31	0.14	4.07	TRUE
1982	6	30	0.20	5.91	1982	6	30	0.21	6.39	TRUE
1982	7	31	0.18	5.32	1982	7	31	0.14	4.27	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1982	8	31	0.07	2.11	1982	8	31	0.02	0.56	TRUE
1982	9	30	0.06	1.80	1982	9	30	0.08	2.32	TRUE
1982	10	31	0.14	4.35	1982	10	31	0.13	3.94	TRUE
1982	11	30	0.12	3.58	1982	11	30	0.14	4.14	TRUE
1982	12	31	0.12	3.66	1982	12	31	0.14	4.23	TRUE
1983	1	31	0.07	2.04	1983	1	31	0.04	1.11	TRUE
1983	2	28	0.19	5.72	1983	2	28	0.11	3.28	TRUE
1983	3	31	0.16	4.82	1983	3	31	0.19	5.79	TRUE
1983	4	30	0.17	4.97	1983	4	30	0.18	5.28	TRUE
1983	5	31	0.10	3.06	1983	5	31	0.11	3.24	TRUE
1983	6	30	0.13	3.84	1983	6	30	0.10	2.86	TRUE
1983	7	31	0.04	1.26	1983	7	31	0.03	0.86	TRUE
1983	8	31	0.05	1.36	1983	8	31	0.15	4.65	TRUE
1983	9	30	0.10	3.10	1983	9	30	0.07	1.97	TRUE
1983	10	31	0.12	3.62	1983	10	31	0.13	3.89	TRUE
1983	11	30	0.16	4.70	1983	11	30	0.15	4.40	TRUE
1983	12	31	0.20	6.13	1983	12	31	0.21	6.28	TRUE
1984	1	31	0.13	3.76	1984	1	31	0.12	3.45	TRUE
1984	2	29	0.22	6.48	1984	2	29	0.21	6.29	TRUE
1984	3	31	0.16	4.81	1984	3	31	0.16	4.75	TRUE
1984	4	30	0.16	4.80	1984	4	30	0.18	5.41	TRUE
1984	5	31	0.21	6.44	1984	5	31	0.25	7.58	TRUE
1984	6	30	0.11	3.22	1984	6	30	0.05	1.56	TRUE
1984	7	31	0.32	9.48	1984	7	31	0.18	5.50	TRUE
1984	8	31	0.08	2.26	1984	8	31	0.05	1.41	TRUE
1984	9	30	0.02	0.64	1984	9	30	0.03	0.93	TRUE
1984	10	31	0.06	1.71	1984	10	31	0.07	2.08	TRUE
1984	11	30	0.06	1.66	1984	11	30	0.08	2.41	TRUE
1984	12	31	0.06	1.81	1984	12	31	0.06	1.79	TRUE
1985	1	31	0.11	3.34	1985	1	31	0.09	2.70	TRUE
1985	2	28	0.17	5.00	1985	2	28	0.19	5.55	TRUE
1985	3	31	0.03	1.02	1985	3	31	0.04	1.20	TRUE
1985	4	30	0.08	2.28	1985	4	30	0.05	1.49	TRUE
1985	5	31	0.17	5.07	1985	5	31	0.25	7.54	TRUE
1985	6	30	0.14	4.33	1985	6	30	0.13	3.97	TRUE
1985	7	31	0.14	4.07	1985	7	31	0.25	7.51	TRUE
1985	8	31	0.29	8.64	1985	8	31	0.15	4.40	TRUE
1985	9	30	0.01	0.27	1985	9	30	0.00	0.05	TRUE
1985	10	31	0.14	4.18	1985	10	31	0.10	2.92	TRUE
1985	11	30	0.19	5.76	1985	11	30	0.19	5.69	TRUE
1985	12	31	0.05	1.35	1985	12	31	0.05	1.48	TRUE
1986	1	31	0.04	1.16	1986	1	31	0.02	0.75	TRUE
1986	2	28	0.05	1.44	1986	2	28	0.05	1.44	TRUE
1986	3	31	0.07	2.18	1986	3	31	0.08	2.32	TRUE
1986	4	30	0.02	0.67	1986	4	30	0.01	0.43	TRUE
1986	5	31	0.03	1.04	1986	5	31	0.03	0.84	TRUE
1986	6	30	0.02	0.62	1986	6	30	0.03	0.80	TRUE
1986	7	31	0.15	4.55	1986	7	31	0.05	1.62	TRUE
1986	8	31	0.22	6.55	1986	8	31	0.18	5.30	TRUE
1986	9	30	0.07	1.99	1986	9	30	0.05	1.46	TRUE
1986	10	31	0.13	3.89	1986	10	31	0.11	3.22	TRUE
1986	11	30	0.16	4.92	1986	11	30	0.15	4.46	TRUE
1986	12	31	0.12	3.57	1986	12	31	0.14	4.14	TRUE
1987	1	31	0.15	4.46	1987	1	31	0.13	3.79	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1987	2	28	0.16	4.67	1987	2	28	0.15	4.56	TRUE
1987	3	31	0.16	4.90	1987	3	31	0.18	5.29	TRUE
1987	4	30	0.23	6.83	1987	4	30	0.13	3.83	TRUE
1987	5	31	0.02	0.68	1987	5	31	0.05	1.63	TRUE
1987	6	30	0.10	3.11	1987	6	30	0.25	7.44	TRUE
1987	7	31	0.09	2.57	1987	7	31	0.08	2.30	TRUE
1987	8	31	0.09	2.57	1987	8	31	0.09	2.63	TRUE
1987	9	30	0.27	8.12	1987	9	30	0.24	7.19	TRUE
1987	10	31	0.03	0.79	1987	10	31	0.04	1.05	TRUE
1987	11	30	0.13	3.75	1987	11	30	0.15	4.51	TRUE
1987	12	31	0.13	3.76	1987	12	31	0.13	3.84	TRUE
1988	1	31	0.10	3.03	1988	1	31	0.07	2.01	TRUE
1988	2	29	0.06	1.84	1988	2	29	0.05	1.48	TRUE
1988	3	31	0.09	2.70	1988	3	31	0.09	2.67	TRUE
1988	4	30	0.09	2.56	1988	4	30	0.08	2.36	TRUE
1988	5	31	0.11	3.35	1988	5	31	0.07	2.15	TRUE
1988	6	30	0.07	2.04	1988	6	30	0.08	2.42	TRUE
1988	7	31	0.11	3.37	1988	7	31	0.12	3.75	TRUE
1988	8	31	0.23	6.92	1988	8	31	0.12	3.65	TRUE
1988	9	30	0.19	5.79	1988	9	30	0.22	6.59	TRUE
1988	10	31	0.12	3.47	1988	10	31	0.10	2.92	TRUE
1988	11	30	0.12	3.67	1988	11	30	0.13	3.84	TRUE
1988	12	31	0.04	1.30	1988	12	31	0.05	1.60	TRUE
1989	1	31	0.07	2.01	1989	1	31	0.06	1.88	TRUE
1989	2	28	0.20	6.10	1989	2	28	0.20	6.12	TRUE
1989	3	31	0.19	5.69	1989	3	31	0.15	4.35	TRUE
1989	4	30	0.14	4.30	1989	4	30	0.11	3.36	TRUE
1989	5	31	0.15	4.59	1989	5	31	0.16	4.77	TRUE
1989	6	30	0.23	6.80	1989	6	30	0.17	5.06	TRUE
1989	7	31	0.18	5.26	1989	7	31	0.25	7.35	TRUE
1989	8	31	0.11	3.27	1989	8	31	0.08	2.38	TRUE
1989	9	30	0.17	5.03	1989	9	30	0.23	6.99	TRUE
1989	10	31	0.23	6.82	1989	10	31	0.19	5.56	TRUE
1989	11	30	0.10	2.86	1989	11	30	0.10	3.04	TRUE
1989	12	31	0.12	3.45	1989	12	31	0.13	3.85	TRUE
1990	1	31	0.16	4.82	1990	1	31	0.16	4.74	TRUE
1990	2	28	0.21	6.33	1990	2	28	0.21	6.38	TRUE
1990	3	31	0.11	3.18	1990	3	31	0.16	4.69	TRUE
1990	4	30	0.11	3.27	1990	4	30	0.08	2.48	TRUE
1990	5	31	0.34	10.19	1990	5	31	0.27	8.11	TRUE
1990	6	30	0.06	1.69	1990	6	30	0.07	1.98	TRUE
1990	7	31	0.06	1.81	1990	7	31	0.08	2.52	TRUE
1990	8	31	0.08	2.31	1990	8	31	0.13	3.91	TRUE
1990	9	30	0.05	1.51	1990	9	30	0.01	0.19	TRUE
1990	10	31	0.41	12.22	1990	10	31	0.41	12.23	TRUE
1990	11	30	0.08	2.51	1990	11	30	0.08	2.43	TRUE
1990	12	31	0.09	2.75	1990	12	31	0.09	2.84	TRUE
1991	1	31	0.16	4.92	1991	1	31	0.15	4.52	TRUE
1991	2	28	0.07	2.12	1991	2	28	0.08	2.43	TRUE
1991	3	31	0.22	6.71	1991	3	31	0.24	7.24	TRUE
1991	4	30	0.22	6.58	1991	4	30	0.19	5.58	TRUE
1991	5	31	0.13	3.90	1991	5	31	0.15	4.36	TRUE
1991	6	30	0.07	2.19	1991	6	30	0.13	3.77	TRUE
1991	7	9	0.53	15.83	1991	7	31	0.16	4.95	FALSE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations (*Continued from previous page*)

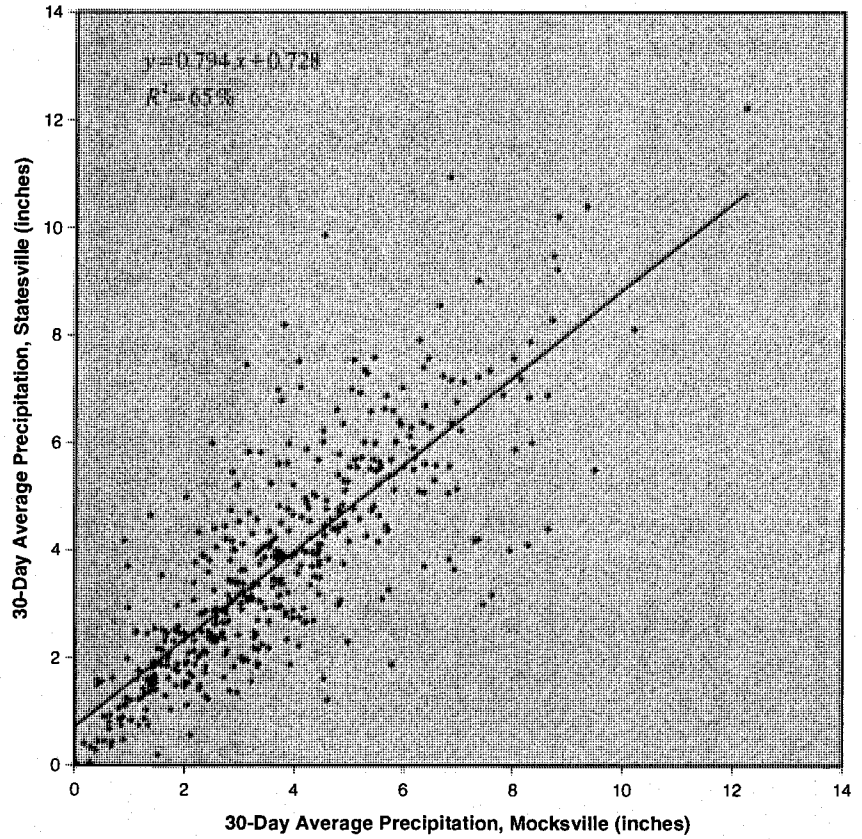
Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1993	4	30	0.12	3.72	1993	4	30	0.11	3.40	TRUE
1993	5	31	0.11	3.33	1993	5	31	0.06	1.85	TRUE
1993	6	30	0.07	1.97	1993	6	30	0.08	2.46	TRUE
1993	7	31	0.03	0.97	1993	7	31	0.10	2.93	TRUE
1993	8	31	0.07	1.99	1993	8	31	0.05	1.55	TRUE
1993	9	30	0.10	2.96	1993	9	30	0.05	1.35	TRUE
1993	10	30	0.05	1.44	1993	10	31	0.04	1.31	FALSE
1993	11	30	0.09	2.55	1993	11	30	0.09	2.77	TRUE
1993	12	31	0.13	3.84	1993	12	31	0.13	3.88	TRUE
1994	1	29	0.14	4.33	1994	1	31	0.15	4.35	FALSE
1994	2	28	0.13	3.75	1994	2	28	0.10	2.97	TRUE
1994	3	31	0.21	6.38	1994	3	31	0.22	6.69	TRUE
1994	4	30	0.05	1.53	1994	4	30	0.06	1.94	TRUE
1994	5	31	0.05	1.45	1994	5	31	0.08	2.55	TRUE
1994	6	30	0.18	5.41	1994	6	30	0.16	4.74	TRUE
1994	7	31	0.12	3.71	1994	7	31	0.19	5.60	TRUE
1994	8	31	0.18	5.44	1994	8	31	0.19	5.70	TRUE
1994	9	30	0.11	3.31	1994	9	30	0.08	2.44	TRUE
1994	10	31	0.05	1.60	1994	10	31	0.08	2.53	TRUE
1994	11	30	0.11	3.36	1994	11	30	0.10	3.06	TRUE
1994	12	31	0.05	1.46	1994	12	31	0.05	1.64	TRUE
1995	1	31	0.14	4.27	1995	1	31	0.16	4.78	TRUE
1995	2	27	0.16	4.70	1995	2	28	0.15	4.45	FALSE
1995	3	31	0.08	2.30	1995	3	31	0.08	2.50	TRUE
1995	4	30	0.01	0.41	1995	4	30	0.01	0.44	TRUE
1995	5	31	0.12	3.63	1995	5	31	0.12	3.48	TRUE
1995	6	30	0.29	8.79	1995	6	30	0.31	9.22	TRUE
1995	7	31	0.25	7.45	1995	7	31	0.10	3.00	TRUE
1995	9	30	0.10	3.03	1995	9	30	0.12	3.63	TRUE
1995	10	31	0.26	7.80	1995	10	31	0.23	6.89	TRUE
1995	11	30	0.15	4.37	1995	11	30	0.12	3.52	TRUE
1995	12	29	0.07	1.96	1995	12	31	0.06	1.74	FALSE
1996	1	29	0.13	3.93	1996	1	31	0.13	3.95	FALSE
1996	2	28	0.09	2.73	1996	2	29	0.11	3.21	FALSE
1996	3	30	0.13	3.87	1996	3	31	0.14	4.11	FALSE
1996	4	30	0.12	3.62	1996	4	30	0.12	3.46	TRUE
1996	5	30	0.07	1.96	1996	5	31	0.05	1.42	FALSE
1996	6	30	0.10	2.86	1996	6	30	0.14	4.17	TRUE
1996	7	31	0.17	4.98	1996	7	31	0.08	2.30	TRUE
1996	8	31	0.12	3.69	1996	8	31	0.23	6.98	TRUE
1996	9	29	0.17	5.17	1996	9	30	0.20	6.01	FALSE
1996	10	31	0.11	3.15	1996	10	31	0.07	1.95	TRUE
1996	11	30	0.12	3.54	1996	11	30	0.14	4.12	TRUE
1996	12	31	0.15	4.35	1996	12	31	0.17	5.04	TRUE
1997	1	29	0.10	2.88	1997	1	31	0.12	3.47	FALSE
1997	2	26	0.10	3.13	1997	2	28	0.16	4.82	FALSE
1997	3	29	0.15	4.57	1997	3	31	0.11	3.38	FALSE
1997	4	30	0.22	6.64	1997	4	30	0.29	8.55	TRUE
1997	5	31	0.08	2.38	1997	5	31	0.04	1.28	TRUE
1997	6	30	0.13	3.98	1997	6	30	0.10	2.89	TRUE
1997	7	31	0.23	7.03	1997	7	31	0.21	6.23	TRUE
1997	8	31	0.04	1.11	1997	8	31	0.08	2.51	TRUE
1997	9	30	0.09	2.83	1997	9	30	0.13	3.81	TRUE
1997	10	31	0.11	3.22	1997	10	31	0.11	3.31	TRUE

Table D-4. Monthly average precipitation at Statesville and Mocksville stations *(Continued from previous page)*

Mocksville			Average Precipitation (inches)		Statesville			Average Precipitation (inches)		Num. Days Consistent
Year	Month	Num. Days	Daily	30-Day	Year	Month	Num. Days	Daily	30-Day	
1997	11	30	0.10	2.99	1997	11	30	0.08	2.43	TRUE
1997	12	30	0.15	4.37	1997	12	31	0.12	3.65	FALSE
1998	1	31	0.20	5.93	1998	1	31	0.21	6.33	TRUE
1998	2	27	0.16	4.70	1998	2	28	0.16	4.82	FALSE
1998	3	29	0.13	3.76	1998	3	30	0.10	3.05	FALSE
1998	4	30	0.19	5.64	1998	4	30	0.22	6.63	TRUE
1998	5	31	0.11	3.32	1998	5	31	0.13	3.94	TRUE
1998	6	30	0.10	2.97	1998	6	30	0.11	3.41	TRUE
1998	7	30	0.06	1.66	1998	7	31	0.08	2.33	FALSE
1998	8	31	0.05	1.35	1998	8	31	0.05	1.35	TRUE
1998	9	30	0.09	2.57	1998	9	30	0.09	2.76	TRUE
1998	10	31	0.04	1.15	1998	10	31	0.06	1.77	TRUE
1998	11	30	0.07	2.08	1998	11	30	0.06	1.72	TRUE
1998	12	31	0.15	4.35	1998	12	30	0.13	4.02	FALSE
1999	1	31	0.16	4.90	1999	1	31	0.12	3.75	TRUE
1999	2	28	0.08	2.38	1999	2	28	0.10	2.87	TRUE
1999	3	30	0.07	1.97	1999	3	31	0.07	2.16	FALSE
1999	4	30	0.18	5.53	1999	4	30	0.17	5.22	TRUE
1999	5	31	0.01	0.40	1999	5	31	0.05	1.60	TRUE
1999	6	28	0.06	1.80	1999	6	30	0.08	2.30	FALSE
1999	7	25	0.17	5.08	1999	7	31	0.13	4.05	FALSE
1999	8	31	0.13	3.78	1999	8	31	0.11	3.38	TRUE
1999	9	30	0.14	4.28	1999	9	30	0.15	4.54	TRUE
1999	10	31	0.10	3.15	1999	10	31	0.10	3.06	TRUE
1999	11	30	0.05	1.44	1999	11	30	0.05	1.64	TRUE
1999	12	31	0.05	1.64	1999	12	31	0.08	2.30	TRUE
2000	1	31	0.12	3.54	2000	1	31	0.14	4.05	TRUE
2000	2	28	0.06	1.79	2000	2	29	0.08	2.26	FALSE
2000	3	30	0.13	3.82	2000	3	31	0.11	3.23	FALSE
2000	4	30	0.13	3.87	2000	4	30	0.19	5.62	TRUE
2000	5	29	0.08	2.35	2000	5	31	0.07	2.21	FALSE
2000	6	30	0.05	1.59	2000	6	30	0.07	2.15	TRUE
2000	7	31	0.03	0.96	2000	7	31	0.12	3.71	TRUE
2000	8	31	0.13	3.93	2000	8	31	0.06	1.88	TRUE
2000	9	29	0.10	2.94	2000	9	30	0.17	4.97	FALSE
2000	10	31	0.00	0.00	2000	10	31	0.00	0.00	TRUE
2000	11	30	0.07	1.98	2000	11	30	0.08	2.32	TRUE
2000	12	31	0.04	1.24	2000	12	31	0.05	1.42	TRUE
2001	1	31	0.08	2.43	2001	1	31	0.08	2.50	TRUE
2001	2	27	0.11	3.29	2001	2	28	0.09	2.56	FALSE
2001	3	30	0.15	4.44	2001	3	31	0.20	5.94	FALSE
2001	4	30	0.05	1.40	2001	4	30	0.05	1.61	TRUE
2001	5	31	0.08	2.38	2001	5	31	0.06	1.85	TRUE
2001	6	28	0.05	1.41	2001	6	30	0.11	3.23	FALSE
2001	7	31	0.14	4.23	2001	7	31	0.16	4.88	TRUE
2001	8	31	0.07	2.03	2001	8	31	0.06	1.93	TRUE
2001	9	30	0.06	1.89	2001	9	30	0.08	2.47	TRUE
2001	10	31	0.01	0.16	2001	10	31	0.01	0.41	TRUE
2001	11	30	0.02	0.53	2001	11	30	0.02	0.45	TRUE
2001	12	31	0.09	2.67	2001	12	31	0.10	2.89	TRUE
2002	1	31	0.17	5.08	2002	1	31	0.16	4.77	TRUE
2002	2	28	0.04	1.21	2002	2	28	0.04	1.25	TRUE

1. The value of "Num. Days" in each record indicates the number of days for which precipitation was measured.
2. The daily average precipitation for a month was calculated by dividing the total amount of precipitation for the month by the number of days for which the measurements were available. The 30-day average is simply the daily average multiplied by 30.
3. Values in the last column entitled "Num. Days Consistent" indicate whether the numbers of days of measurements at the Statesville and Mocksville stations are consistent for a given month. If true, the measurement pair for that particular month was used in Figure D-17 for determining the level of correlation between the two aforementioned stations. If false, the pair was dropped from the calculation.

Figure D-17. Plot of monthly average precipitation between Mocksville and Statesville stations



NOTE

1. Data presented in the above graph correspond to the 30-day average precipitations included in Table D-4.
2. The equation displayed in the above graph corresponds to the best fit curve displayed in the same graph.
3. The R-square (R^2) value displayed in the graph equals the square of its corresponding Pearson correlation coefficient (R), and signifies the degree of inter-dependency between the compared data set.
4. Note that there are minor number of the months in which the numbers of recorded daily measurement events at the two referenced weather stations are inconsistent due to missing measurement (constitutes roughly 8% of all the recorded dates). Those records were dropped from inclusion in the above graph in order to improve the accuracy of the calculated values.

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

Year: 1960, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	1.34	0.00	0.00	0.53	0.00	0.04	0.05	0.41	0.00	0.62	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00
3	0.78	0.00	2.10	0.37	0.00	0.02	0.06	0.00	0.06	0.00	0.01	0.00
4	0.00	0.00	0.00	0.61	0.00	1.49	0.00	0.00	0.00	0.56	0.00	0.00
5	0.00	0.54	0.00	1.23	0.00	0.40	0.06	0.04	0.00	0.08	0.00	0.00
6	0.40	1.29	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.84	0.02	0.00
7	0.49	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.34	0.34	0.00	0.00
8	0.03	0.00	0.00	0.00	1.80	0.00	0.00	0.00	1.55	0.11	0.00	0.00
9	0.00	0.00	0.15	0.00	0.10	0.00	0.00	0.00	0.00	0.13	0.00	0.00
10	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.41	0.00
11	0.00	0.75	0.00	0.00	0.00	0.00	0.12	0.08	0.57	0.00	0.02	0.18
12	0.00	0.00	0.03	0.00	0.03	0.00	0.00	0.31	0.32	0.00	0.00	0.93
13	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
14	0.01	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.01
17	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
18	0.28	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
19	0.02	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
22	0.00	0.09	0.00	0.32	0.00	0.68	0.00	0.15	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.32	0.00	0.00	0.15	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
25	0.00	0.45	0.00	0.00	0.40	0.15	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.06	0.00	0.00	0.00	0.03	0.37	0.01	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	1.43	0.07	0.19	0.00	0.00	0.03	0.00	0.00
28	0.39	0.00	0.00	0.47	0.03	0.00	1.90	0.00	0.00	0.20	0.00	0.00
29	0.00	0.00	0.00	0.27	0.00	0.19	0.10	0.00	0.87	0.00	0.00	0.00
30	0.68		0.97	0.00	0.04	0.00	0.05	0.00	0.24	0.00	0.00	0.09
31	1.47		0.93		0.00		0.00	0.00		0.00		0.00
SUM	4.67	7.10	5.73	3.38	4.36	3.16	3.66	1.36	4.44	3.06	1.30	1.49

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(Continued from previous page)

Year: 1961, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.02	0.00	0.10	0.77	0.06	0.00	0.00	0.00	0.00	0.00	0.02	0.00
2	0.00	0.00	0.06	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.05	0.00	0.00	0.00	0.00
4	0.00	0.28	0.00	0.51	0.00	0.00	0.00	0.77	0.00	0.74	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.18	0.00	0.00	0.00
6	0.00	0.00	0.02	0.00	0.06	0.85	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.08	0.00	0.00	0.00	0.32	0.37	0.00	0.00	0.41	0.00
8	0.00	1.03	0.26	0.00	0.00	0.00	1.25	0.13	0.00	0.00	0.00	0.00
9	0.00	0.00	0.46	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	2.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.95
11	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.01	0.00	0.00	0.00	0.77
12	0.00	0.00	0.00	0.00	0.66	0.00	0.20	0.00	0.00	0.00	0.27	2.26
13	0.00	0.00	0.00	0.88	0.23	0.08	0.03	0.00	0.00	0.00	0.05	0.32
14	0.07	0.00	0.40	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.19	0.00
15	0.52	0.00	0.00	0.00	0.00	0.11	0.10	0.00	0.01	0.12	0.58	0.00
16	0.04	0.00	0.00	0.53	0.00	0.23	0.40	0.00	0.00	0.00	0.04	0.00
17	0.02	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.02	0.59
18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.93
19	0.00	0.93	0.32	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02
20	0.50	0.01	0.00	0.00	0.00	0.00	0.09	0.03	0.01	0.52	0.02	0.01
21	0.00	0.72	0.08	0.00	0.00	2.42	0.00	0.70	0.16	0.00	0.00	0.00
22	0.00	0.06	1.63	0.00	0.00	1.30	0.06	0.34	0.00	0.00	0.00	0.00
23	0.00	0.71	0.00	0.00	0.07	0.00	0.03	0.08	0.00	0.00	0.00	0.00
24	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.26
25	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
26	0.00	0.23	0.00	0.00	0.18	0.02	0.00	2.98	0.00	0.00	0.00	0.00
27	0.49	0.00	0.00	0.00	0.55	0.97	0.19	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.11	0.00	0.04	0.00	0.24	0.00	0.00	0.00	0.44
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
31	0.00		0.43		0.00		0.00	0.10		0.00		0.00
SUM	2.66	4.45	4.11	4.80	3.16	6.38	3.66	6.38	0.37	1.38	2.55	6.55

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1962, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.52	0.00	0.08	1.45	0.03	1.95	0.00	0.00	0.00	0.00	0.19	0.00
2	0.78	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.19	0.00	0.05	0.94	0.00
4	0.00	0.00	0.00	0.00	0.00	0.32	0.90	0.81	0.14	0.23	0.12	0.50
5	0.00	0.00	0.14	0.00	0.00	0.08	0.00	0.00	0.25	0.21	0.04	0.84
6	0.70	0.05	0.07	0.13	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.35
7	1.01	0.00	0.00	0.27	0.00	0.94	0.00	0.28	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00
9	0.00	0.17	0.20	0.03	0.23	0.00	0.00	0.00	0.02	0.00	0.68	0.00
10	0.25	0.18	0.29	0.00	0.00	0.00	0.00	0.00	0.40	0.00	2.99	0.00
11	0.00	0.00	0.11	0.29	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.02	0.78	0.21	0.03	0.33	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.39	0.00	2.23	1.25	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00
16	0.23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	1.63	0.00	0.00	0.00
17	0.00	0.30	0.00	0.00	0.00	0.00	0.32	0.08	1.62	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.06	0.06	0.00	0.26	0.00
19	0.03	0.63	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.63	0.00
20	0.00	0.00	0.00	0.00	0.11	0.26	0.00	0.00	0.00	0.00	0.13	0.00
21	0.00	0.00	0.87	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.01	0.00
22	0.00	0.61	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.56	0.19
23	0.30	1.17	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.27	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
25	0.15	0.00	0.00	0.00	0.00	0.80	0.08	0.00	0.00	0.00	0.00	0.43
26	0.02	1.08	0.29	0.00	0.16	0.00	0.40	0.00	0.00	0.00	0.00	0.51
27	0.17	0.00	0.01	0.00	0.55	0.04	0.00	0.00	0.98	0.00	0.00	0.00
28	1.16	0.00	0.00	0.00	1.24	0.22	0.00	0.00	0.00	0.00	0.00	0.00
29	0.72	0.00	0.00	0.00	0.38	0.00	0.17	0.00	0.00	0.00	0.00	0.09
30	0.00		0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.82
31	0.00		0.00		0.73		1.06	0.00		0.09		0.00
SUM	6.04	4.54	2.90	3.71	3.51	8.62	4.77	1.47	5.21	1.06	6.55	3.73

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1963, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00
3	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
4	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00
6	0.00	0.00	2.43	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.89	0.00
7	0.00	0.00	0.06	1.19	0.00	0.03	0.00	0.00	0.03	0.00	0.21	0.00
8	0.15	0.00	0.00	0.08	0.00	0.22	0.07	0.00	0.03	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.18
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.08	0.00	0.00	0.00	0.00	0.02	0.00	0.31	0.00	0.00	0.00	0.05
12	0.57	0.73	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52
13	0.16	0.28	1.81	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
14	0.16	0.00	0.00	0.00	0.00	0.18	0.12	0.00	0.15	0.00	0.00	0.40
15	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.01	0.00	0.00	0.06
16	0.00	0.00	0.00	0.00	0.38	0.04	0.02	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.73	0.00	0.23	0.47	0.00	0.00	0.00	0.00	0.00	0.00
18	0.22	0.00	0.04	0.00	0.18	0.02	0.00	0.00	0.00	0.00	0.00	0.00
19	0.12	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.85	0.16	0.58	0.00	0.00	0.00	0.08	0.03	0.00	0.00	0.00	0.00
21	0.36	0.00	0.00	0.00	0.07	0.96	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.29	0.09	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.31	0.00	0.28	0.04	0.00	0.00	0.00	0.36
24	0.05	0.07	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.47	0.32
25	0.00	0.14	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.27	0.00	0.10	0.34	0.00	0.00	0.00	0.00
27	0.04	0.17	0.20	0.00	0.47	0.06	0.00	0.02	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.07	0.34	0.00	1.99	0.00	2.69	0.03	1.63	0.00
30	0.00		0.00	1.40	0.08	0.00	0.14	0.99	0.00	0.00	0.09	0.00
31	0.09		0.00		0.00		0.91	0.00		0.00		0.00
SUM	2.85	2.79	7.31	2.74	3.01	3.34	4.22	1.73	3.72	0.03	4.06	1.95

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1964, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.97	0.26	0.00	0.00	0.00	0.10	0.00	0.00	0.06	0.13	0.00	0.11
2	0.00	0.00	0.00	0.00	0.00	2.34	0.00	0.08	0.00	0.33	0.00	0.00
3	0.00	0.00	0.70	0.06	0.08	0.07	0.00	0.40	0.00	0.02	0.00	0.00
4	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.48	0.00	0.87	0.00	0.33
5	0.00	0.00	0.25	0.06	0.00	0.00	0.00	0.00	0.00	3.17	0.00	0.19
6	0.00	1.08	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.14
7	0.31	0.00	0.00	1.07	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.04	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.71	0.00	0.00	0.03	0.00	0.00	0.06	0.71	0.00	0.00	0.07	0.00
10	0.08	0.09	0.09	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
11	0.00	0.10	0.00	0.00	0.00	0.00	0.03	0.24	0.02	0.00	0.00	0.00
12	0.33	0.00	0.00	0.00	0.00	0.00	0.15	0.23	0.00	0.00	0.00	0.17
13	0.50	0.00	0.00	0.10	0.11	0.02	1.20	0.03	0.74	0.00	0.00	0.41
14	0.00	0.09	0.06	0.15	0.46	0.35	0.43	0.00	0.03	0.00	0.00	0.00
15	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.84	0.03	0.00	0.00	0.39	0.00	0.35	0.00	1.57	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32	0.00	2.87	0.00	0.00
18	0.00	0.46	0.00	0.00	0.00	0.04	0.30	0.00	0.00	0.00	0.00	0.06
19	0.00	0.60	0.00	0.00	0.00	0.23	1.86	0.00	0.00	0.00	0.28	0.00
20	0.28	0.00	0.08	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.21	0.52
21	0.11	0.00	0.29	0.00	0.02	0.00	0.62	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
25	1.75	0.00	0.00	0.13	0.16	1.81	0.00	0.00	0.00	0.00	1.66	0.08
26	0.00	0.49	0.45	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.17
27	0.00	0.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.99
28	0.00	0.02	0.00	0.28	0.00	0.00	0.34	0.02	0.00	0.00	0.00	0.21
29	0.00	0.40	0.00	0.11	0.13	0.00	0.04	0.02	0.06	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	1.36	0.36	0.04	0.00	0.00	0.00
31	0.00		0.00		0.00		0.31	1.15		0.00		0.00
SUM	5.04	4.47	3.05	3.57	0.96	5.39	7.19	5.40	0.95	9.01	2.79	4.44

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1965, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.13	0.00	0.26	0.00	0.00
2	0.01	0.30	0.05	0.00	0.00	0.00	0.00	0.00	0.00	2.05	0.00	0.00
3	0.00	0.00	1.06	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.13	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.40	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00
7	0.00	0.69	0.00	0.43	0.58	0.00	0.00	0.00	0.00	1.10	0.00	0.00
8	0.00	0.58	0.02	0.00	0.50	0.22	0.84	0.13	0.00	0.64	0.00	0.00
9	0.00	0.00	0.00	0.16	0.00	0.08	0.00	0.12	0.00	0.07	0.00	0.00
10	0.00	0.14	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
11	0.60	0.02	0.00	0.00	0.05	0.00	0.41	0.00	0.02	0.00	0.42	0.00
12	0.00	0.00	0.00	0.00	0.20	1.02	0.34	0.00	1.04	0.00	0.00	0.00
13	0.00	0.17	0.07	0.00	0.20	0.19	0.00	0.00	0.09	0.00	0.23	0.00
14	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
15	0.00	0.34	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00
16	0.10	0.00	0.00	0.46	0.00	2.22	0.77	0.00	0.00	0.00	0.00	0.00
17	0.61	0.00	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.04
18	0.00	0.00	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.06	0.00	0.35	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.09	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.52	0.39	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
24	0.43	0.00	0.20	0.00	0.00	0.00	0.11	1.65	0.00	0.00	0.00	0.00
25	0.17	1.16	0.04	0.00	0.06	0.06	0.00	0.15	1.26	0.00	0.01	0.24
26	0.00	0.00	0.55	0.59	0.00	0.00	0.05	0.05	0.00	0.00	0.03	0.00
27	0.00	0.00	0.64	0.64	0.05	0.05	0.22	0.06	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.11	0.00	0.00	0.37	0.00	0.00	0.00	0.05	0.00
29	0.00	0.40	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.22		0.11	0.00	0.00	0.45	0.33	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.00
SUM	2.14	3.51	6.36	2.54	1.70	5.14	4.74	2.82	2.42	4.64	1.13	0.28

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(Continued from previous page)

Year: 1966, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.16	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.43	0.00	0.00
3	0.11	0.00	0.00	0.00	0.09	0.00	0.00	0.06	0.00	0.00	0.28	0.00
4	0.10	0.00	1.38	0.06	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00
5	0.10	0.00	0.06	0.00	0.00	0.00	0.18	0.03	0.22	0.00	0.00	0.00
6	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.06	0.00	0.47	0.00	0.86	0.00	0.00	0.00	0.00
10	0.00	0.05	0.00	0.00	0.01	0.44	0.00	0.00	0.00	0.00	0.02	0.02
11	0.00	0.24	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.14	0.37
12	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.14	0.00
13	0.00	1.56	0.00	0.25	0.00	0.00	0.11	0.36	0.00	0.00	0.07	0.54
14	0.07	0.26	0.00	0.20	0.00	0.00	0.08	0.68	0.84	0.00	0.00	0.15
15	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.93	0.12	0.00	0.00	0.00
16	0.73	1.21	0.00	0.15	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
17	0.00	0.45	0.00	0.00	0.01	1.19	0.00	0.14	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.13	0.00	0.00	0.33	0.00	0.00	0.19	1.22	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.05	1.71	0.25	0.00	0.00
21	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00
22	0.14	0.00	0.00	0.23	1.43	0.00	0.00	0.00	0.37	0.00	0.00	0.00
23	0.69	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
24	0.00	0.58	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
25	0.00	0.17	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.33	0.00	0.00
26	0.19	0.00	0.00	0.04	0.00	0.00	0.00	0.73	0.00	0.12	0.00	0.00
27	0.32	0.00	0.00	0.12	0.42	0.00	0.00	0.22	0.00	0.00	0.00	0.00
28	0.00	0.36	0.00	0.03	2.33	0.00	0.00	0.00	0.00	0.00	0.66	0.00
29	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.04	0.63
30	0.54		0.00	0.00	0.02	0.00	0.59	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		1.16	0.00		0.00		0.00
SUM	4.00	5.09	3.00	1.47	5.80	2.52	2.23	4.71	3.88	2.36	1.35	2.51

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1967, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.04	0.00	0.00	0.00	0.00	0.35	0.00	0.01	0.00	0.00	0.07	0.23
2	0.00	0.00	0.00	0.00	0.00	0.29	0.91	0.06	0.11	0.00	0.37	0.00
3	0.00	0.00	0.00	0.00	0.30	0.00	0.16	0.00	0.00	0.00	0.02	0.72
4	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
5	0.25	0.00	0.00	0.00	0.11	0.03	0.00	0.06	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.74	0.49	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.58	0.00	0.00	0.00	0.16	0.00	0.98	0.64	0.00	0.08	0.00	0.01
9	0.32	0.00	0.00	0.00	0.06	0.00	0.69	0.00	0.00	0.20	0.00	0.00
10	0.06	0.30	0.00	0.00	0.00	0.00	0.00	0.00	1.98	0.33	0.00	0.20
11	0.00	0.00	0.00	0.03	0.02	0.00	0.00	0.25	0.00	0.04	0.00	1.17
12	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
13	0.00	0.00	0.65	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.33	0.00	0.03	0.05	0.03	0.00	0.35	0.00	0.00	0.00	0.00	0.00
15	0.05	0.00	0.00	0.00	0.01	0.00	0.47	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	1.24	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.00	1.13
20	0.02	0.14	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.50	0.43	0.00	0.49	0.00	0.00	0.29	0.16	0.00	0.00	0.00
22	0.00	0.00	0.00	0.05	0.36	0.00	0.00	0.23	0.44	0.00	0.00	0.00
23	0.00	0.00	0.00	0.67	0.65	0.10	0.00	1.57	0.00	0.00	0.23	1.49
24	0.00	0.00	0.00	0.04	0.05	0.00	0.00	0.50	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.12	0.65	0.00
26	0.00	0.00	0.00	0.61	0.00	0.07	0.00	0.00	0.00	0.04	0.00	0.00
27	0.83	0.00	0.00	0.60	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00
28	0.00	0.09	0.00	0.00	0.00	0.10	0.02	0.00	0.22	0.00	0.00	0.42
29	0.00	0.40	0.32	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	1.07
30	0.00		0.00	0.00	0.56	0.13	0.00	0.00	0.00	0.00	0.16	0.00
31	0.00		0.00		0.59		0.45	0.00		0.00		0.00
SUM	2.48	3.23	1.92	2.07	4.58	1.10	4.33	4.02	3.84	1.43	1.50	7.08

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1968, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.09	0.00	0.25	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.34	0.24	0.00	0.00	0.37
3	0.00	0.24	0.00	0.27	0.00	0.06	0.00	0.07	0.00	0.00	0.00	0.00
4	0.40	0.00	0.00	0.29	0.00	0.06	0.63	0.00	0.00	0.13	0.00	0.28
5	0.00	0.00	0.00	0.52	0.00	0.00	0.15	0.00	0.00	0.00	0.33	0.10
6	0.00	0.00	0.00	0.26	0.00	0.00	0.06	0.98	0.00	0.00	0.00	0.00
7	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.23	0.00
8	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.06	0.00
9	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.01	0.00
10	0.18	0.00	0.03	0.00	0.00	0.15	0.09	0.03	0.15	0.00	0.90	0.00
11	0.81	0.00	0.31	0.24	0.00	0.01	0.16	1.25	0.23	0.00	0.02	0.00
12	0.10	0.00	1.12	0.00	1.34	0.00	0.26	0.00	0.00	0.02	1.16	0.00
13	0.65	0.00	1.02	0.00	0.40	0.52	0.12	0.30	0.00	0.03	0.00	0.00
14	1.15	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.30	0.00	0.00	0.00	0.42
16	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00
17	0.00	0.00	1.31	0.00	0.00	1.41	0.00	0.96	0.00	0.22	0.08	0.00
18	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.82	1.14	0.00
19	0.00	0.00	0.00	0.00	0.21	0.00	0.07	0.00	0.00	1.24	0.19	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.50	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
23	0.00	0.00	0.52	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
24	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.07	0.00	0.00	0.25	0.11	0.00	0.00	0.00	0.00	0.00	0.08	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.59	0.31	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.38
29	0.00	0.32	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.02	0.08
30	0.00		0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.09		0.00		0.00	0.00		0.00		0.00
SUM	4.29	0.60	4.68	3.07	3.50	4.36	2.09	4.23	0.62	3.82	4.22	2.42

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(*Continued from previous page*)

Year: 1969, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.28	0.83	0.52	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
2	0.00	0.86	0.36	0.00	0.00	0.00	0.00	0.75	0.10	0.53	0.63	0.00
3	0.00	0.30	0.00	0.00	0.00	0.11	0.06	0.05	0.00	0.00	0.00	0.00
4	0.00	0.01	0.00	0.24	0.00	0.00	0.14	1.34	0.42	0.00	0.00	0.00
5	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.39	0.00	0.07	0.00	0.15	0.08	0.00	0.00	0.00
7	0.02	0.28	0.72	0.10	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.31
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.64
9	0.00	0.34	0.00	0.00	0.09	0.10	0.00	0.02	1.49	1.52	0.00	0.00
10	0.00	0.00	0.05	0.00	0.00	0.25	0.01	0.00	0.00	0.00	0.00	0.05
11	0.00	0.00	0.00	0.25	0.00	2.25	1.00	0.12	0.00	0.00	0.00	1.65
12	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.14	0.03
13	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	1.93	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.27	0.00	0.63	0.00	0.04	0.00	0.00	0.00	0.00
16	0.00	0.31	0.00	0.94	0.05	0.00	0.00	0.20	0.00	0.00	0.00	0.00
17	0.00	0.48	0.00	0.08	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.05	0.00	1.44	0.39	1.06	0.00	0.00	0.00	0.37	0.00	0.06	0.00
20	0.67	0.00	0.00	0.00	0.96	0.12	0.97	0.10	1.57	0.00	0.55	0.00
21	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.86
23	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.41	0.00	0.92	0.00	0.13	0.04	0.03	0.00	1.20	0.00	0.00	0.00
25	0.00	0.00	0.32	0.00	0.00	0.05	0.03	0.00	0.64	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.15	0.00	1.68
27	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
29	0.67	0.32	0.00	0.07	0.00	0.00	2.19	0.00	0.00	0.00	0.00	0.00
30	0.00		0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.03
SUM	2.73	3.71	4.34	3.09	3.38	5.67	4.61	3.82	6.27	2.78	1.38	5.25

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1970, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.17	0.00
2	0.00	0.68	0.00	0.64	0.00	0.15	0.00	0.22	0.24	0.00	0.05	0.00
3	0.00	0.40	0.00	0.29	0.00	0.01	0.00	0.00	0.00	0.00	0.08	0.00
4	0.00	0.00	0.00	0.00	1.45	0.00	0.56	0.07	0.00	0.00	0.12	0.00
5	0.00	0.00	0.10	0.00	0.29	0.24	0.21	0.00	0.23	0.00	0.02	0.00
6	0.07	0.00	0.00	0.00	0.00	0.05	0.17	1.98	0.00	0.00	0.00	0.00
7	0.44	0.00	0.00	0.14	0.00	0.26	0.00	0.16	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00
10	0.00	0.02	0.00	0.00	0.00	0.00	0.00	4.84	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.46	0.28	0.00	0.24	0.00
12	0.22	0.00	0.19	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00
13	0.00	0.00	0.17	0.00	0.00	0.05	0.00	0.05	0.00	0.00	0.01	0.09
14	0.00	0.00	0.00	0.59	0.00	2.25	0.00	0.15	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.33	0.44	0.00
16	0.00	0.23	0.00	0.00	0.02	0.00	0.50	0.00	0.00	0.32	0.00	0.13
17	0.00	1.94	0.00	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.59
18	0.33	0.00	0.35	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.05	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.09	0.00	0.00	0.02	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00
21	0.08	0.00	0.66	0.00	0.00	0.00	0.10	0.00	0.00	0.40	0.12	0.16
22	0.00	0.00	0.58	0.00	0.00	2.88	0.38	0.00	0.00	0.12	0.00	0.00
23	0.12	0.00	0.15	0.00	0.00	0.02	0.15	0.70	0.00	0.00	0.00	0.39
24	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.26
25	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.50	0.00	0.00
26	0.06	0.47	0.00	0.06	0.86	0.56	0.00	0.00	0.00	0.03	0.00	0.00
27	0.00	0.00	0.00	0.18	0.15	0.29	0.03	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
29	0.00	0.32	0.41	0.44	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
30	0.86		0.00	0.00	0.00	0.00	0.01	0.00	0.00	1.28	0.00	0.01
31	0.00		0.76		0.03		0.00	0.00		2.00		0.00
SUM	2.32	3.93	3.66	2.57	4.10	7.61	2.36	9.63	0.88	4.98	1.27	1.63

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1971, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.62	0.00	0.00	0.00	0.00	0.00	0.32	0.15	0.00	0.04	0.21	0.00
2	0.00	0.00	0.40	0.01	0.00	0.00	0.00	0.34	0.00	1.54	0.11	0.00
3	0.00	0.00	0.93	0.14	0.05	0.00	0.02	0.05	0.00	0.00	0.44	0.00
4	0.01	0.59	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63
5	0.56	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.38	0.00	0.00	0.08	0.00	0.00	0.32	0.00	0.00
7	0.00	0.00	0.00	0.29	0.26	0.00	1.05	0.00	0.00	0.00	0.01	0.50
8	0.00	1.13	0.00	0.00	0.12	0.00	0.00	0.00	0.14	0.00	0.00	0.56
9	0.48	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.07	0.00	0.54	0.00	0.00	0.64	0.06	0.00
11	0.02	0.00	0.12	0.00	0.00	0.00	0.06	0.00	0.70	0.02	0.00	0.00
12	0.00	0.00	0.00	0.00	0.17	0.00	0.93	1.87	0.30	0.00	0.00	0.00
13	0.00	0.44	0.00	0.00	3.82	0.07	0.00	0.00	0.44	0.00	0.00	0.00
14	0.00	0.18	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.03	0.00	0.00	0.00	0.03	0.49	0.07	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.23	0.00	1.93	0.01	0.00	0.00	0.00	1.81	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.08	0.00	0.00	0.00	0.12
18	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.33	0.45	0.00	0.00	0.00
19	0.00	0.00	0.13	0.00	0.00	0.60	0.00	0.22	0.20	0.00	0.00	0.00
20	0.00	0.28	0.27	0.00	0.00	0.00	0.02	0.00	0.40	0.09	0.01	0.31
21	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.06	0.00	0.10
22	0.00	0.17	0.00	0.11	0.00	0.91	0.00	0.00	0.77	0.08	0.00	0.00
23	0.43	0.62	0.00	0.00	0.00	0.36	0.00	0.41	0.40	1.18	0.00	0.00
24	0.00	0.00	0.00	0.45	0.00	0.83	0.00	0.00	0.00	1.15	0.27	0.00
25	0.39	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	1.64	1.09	0.00
26	0.05	0.00	0.56	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
27	0.00	0.21	0.00	0.00	0.00	0.00	0.72	0.06	0.00	0.00	0.32	0.00
28	0.00	0.00	0.00	1.42	0.27	0.00	0.00	0.02	0.00	0.00	0.00	0.00
29	0.00	0.32	0.38	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.10	0.00
30	0.00		0.00	0.00	0.08	0.00	1.83	0.00	0.00	0.00	0.11	0.02
31	0.00		0.00		0.00		0.17	0.00		0.04		0.10
SUM	2.59	4.64	3.47	2.80	8.20	3.73	6.39	3.53	3.80	8.61	2.73	2.34

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(*Continued from previous page*)

Year: 1972, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.01	0.00	1.12	0.00	0.22
2	0.07	0.42	0.87	0.03	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
3	0.07	0.27	0.09	0.00	0.74	0.00	0.10	0.00	0.00	0.00	0.04	0.00
4	0.12	0.84	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00	0.08	0.00
5	0.43	0.00	0.00	0.03	0.00	0.00	1.00	0.00	0.82	0.20	0.00	0.00
6	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34	0.13	0.00	0.34
7	0.00	0.05	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.02	0.00	0.04
8	0.00	0.00	0.41	0.48	0.00	0.00	0.00	0.34	0.00	0.00	1.39	0.00
9	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.31
10	0.41	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.03
11	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
12	0.21	0.00	0.00	0.95	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.28
13	0.21	0.88	0.00	0.10	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
14	0.47	0.00	0.02	0.00	2.18	0.00	0.00	0.13	0.00	0.00	1.58	0.05
15	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	1.30
16	0.00	0.00	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	1.03
17	0.00	0.15	0.61	0.09	0.15	0.00	0.01	0.00	0.00	0.14	0.30	0.00
18	0.00	0.10	0.02	0.00	0.00	2.22	0.00	0.00	1.52	0.00	0.00	0.00
19	0.00	0.56	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.13	0.02	0.00
20	0.00	0.00	0.00	0.00	0.37	0.61	0.00	0.00	0.00	0.17	0.99	0.00
21	0.44	0.00	0.00	0.04	0.12	4.76	0.00	0.00	0.00	0.00	0.00	0.00
22	0.02	0.00	1.06	0.37	0.02	0.48	0.00	0.00	0.00	0.00	0.00	1.52
23	0.06	0.00	0.00	0.26	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.11	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.11	0.00	0.00
25	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.31	0.38	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.96	0.00
27	0.00	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.16
28	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.31	1.17	1.41	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.18	0.06	0.00	0.28	0.01	0.00	0.00
30	0.01		0.28	0.00	0.02	0.36	0.69	0.00	0.65	0.00	0.07	0.03
31	0.00		0.30		0.01		0.16	0.00		0.00		0.10
SUM	3.12	3.78	4.07	2.74	8.57	8.81	2.45	1.52	5.78	3.44	5.45	5.45

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1973, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	2.24	0.00	0.00	0.00	0.02	0.00	0.93	0.14	0.00
2	0.00	1.50	0.00	0.03	0.00	0.00	0.05	2.17	0.00	0.63	0.00	0.00
3	0.00	0.06	0.84	0.00	0.00	0.00	0.00	0.20	0.00	0.05	0.00	0.00
4	0.50	0.00	0.40	0.03	0.89	0.00	0.00	0.00	0.03	0.00	0.00	0.00
5	0.00	0.00	0.86	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.08	0.29
6	0.10	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
7	0.00	0.06	0.39	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00
8	0.65	0.05	0.04	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.28	0.28	0.83	0.00	0.92	0.19	0.00	0.00	0.00	0.11	0.01	1.16
10	0.00	0.00	0.00	0.36	0.00	0.11	0.00	0.00	0.10	0.00	0.00	0.00
11	0.00	0.00	0.02	0.00	0.09	0.00	0.68	0.00	0.08	0.00	0.00	0.00
12	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.20	1.42	0.00	0.00	0.60
15	0.00	0.41	0.00	0.00	0.00	0.00	1.66	0.01	0.12	0.01	0.00	0.00
16	0.00	0.00	0.80	0.00	0.00	0.88	0.55	0.00	0.00	0.00	0.17	0.37
17	0.00	0.00	1.68	0.00	0.00	0.03	0.64	0.00	0.00	0.00	0.00	0.66
18	0.00	0.00	0.00	0.00	0.00	0.12	0.16	0.23	0.00	0.00	0.00	0.00
19	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
21	0.00	0.00	0.19	0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	1.16
22	0.98	0.00	0.26	0.00	0.00	0.03	0.00	0.08	0.00	0.00	0.49	0.00
23	0.09	0.00	0.00	0.00	0.00	0.78	0.85	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.07	0.60	0.23	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
27	0.84	0.11	0.28	1.99	0.08	0.00	0.13	0.00	0.00	0.00	0.24	0.35
28	0.00	0.19	0.00	0.28	2.78	0.36	0.00	0.00	0.00	0.00	0.20	0.00
29	0.67	0.00	0.00	0.00	0.18	1.76	0.00	0.00	0.00	1.05	0.14	0.00
30	0.00		0.33	0.00	0.00	0.00	0.00	0.00	0.13	0.02	0.00	0.58
31	0.00		0.20		0.00		0.24	0.00		0.00		0.23
SUM	4.62	2.79	8.25	6.37	5.56	5.32	4.97	2.98	1.88	2.80	1.47	6.16

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1974, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94
2	0.04	0.07	0.00	0.04	0.13	0.00	0.00	0.07	0.65	0.00	0.00	0.21
3	0.61	0.26	0.00	0.00	0.06	0.53	0.00	0.27	0.24	0.00	0.00	0.00
4	0.20	0.19	0.00	0.04	0.00	0.00	0.00	0.87	0.26	0.00	0.00	0.00
5	0.08	0.00	0.00	1.43	0.00	0.00	0.08	2.32	0.00	0.00	0.00	0.00
6	0.03	0.00	0.23	0.00	0.98	0.00	0.22	0.00	1.26	0.00	0.00	0.00
7	0.04	0.56	0.00	0.00	0.00	0.00	0.04	0.14	1.70	0.00	0.00	0.00
8	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.14	0.02	0.00	0.00	1.36
9	0.07	0.08	0.00	0.73	2.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
10	0.29	0.00	0.00	0.00	0.98	0.00	0.00	0.17	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
12	0.09	0.00	0.00	0.00	0.11	0.00	0.93	0.00	0.00	0.00	0.13	0.02
13	0.00	0.00	0.47	0.22	0.54	0.05	0.00	0.00	0.27	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
15	0.00	0.02	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.06	0.37	0.00
16	0.00	0.10	0.25	0.00	0.00	0.33	0.53	0.01	0.00	0.00	0.00	0.62
17	0.00	0.54	0.37	0.00	0.00	0.12	0.00	0.06	0.00	0.39	0.01	0.00
18	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.01	0.38	0.00	0.16	0.00
19	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.25	0.00	0.38	0.28	0.00
20	0.00	0.27	0.50	0.00	0.21	0.00	0.00	0.08	0.00	0.00	0.42	0.00
21	1.99	0.00	0.36	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.52	0.18
22	0.01	0.54	0.46	0.00	0.17	0.18	0.03	0.00	0.75	0.00	0.00	0.00
23	0.00	0.05	0.00	0.22	0.52	0.00	0.00	0.00	1.80	0.00	0.00	0.01
24	0.02	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.40	0.00	0.21	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	0.14
26	0.06	0.00	0.26	0.00	0.00	0.33	0.02	0.66	0.00	0.00	0.28	0.07
27	0.92	0.00	0.00	0.00	1.09	0.31	0.00	0.00	0.00	0.00	0.00	0.00
28	0.06	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.73	0.00	0.00	0.41
29	0.42	0.00	0.00	0.00	0.00	0.60	0.00	0.04	0.01	0.00	0.00	0.12
30	0.00		2.24	0.00	0.18	0.00	0.00	0.18	0.00	0.00	0.00	0.06
31	0.00		0.01		0.06		0.00	0.00		0.00		0.01
SUM	6.01	3.21	5.36	2.77	8.29	3.74	2.92	5.37	8.27	0.83	2.17	5.16

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1975, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.05	0.00	0.00	0.04	0.02	1.11	0.12	0.00	0.03	0.00	0.00	0.16
2	0.00	0.19	0.03	0.00	0.08	0.03	0.00	0.00	0.49	0.09	0.00	0.00
3	0.00	0.12	0.00	0.30	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
4	0.37	0.06	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	1.50	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
6	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
7	0.31	0.07	0.00	0.00	0.00	0.00	0.12	0.13	1.97	0.00	0.00	0.07
8	0.00	0.00	0.49	0.00	0.00	0.00	0.15	0.00	0.40	0.00	0.49	0.23
9	0.34	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	1.32	0.00	0.02
10	0.00	0.00	0.17	0.00	0.07	0.00	0.03	0.00	0.00	0.00	0.04	0.01
11	1.68	0.00	0.03	0.00	0.03	0.37	0.31	0.00	0.00	0.00	0.16	0.00
12	0.00	0.22	0.17	0.24	0.00	0.31	0.24	0.00	0.07	0.00	0.11	0.00
13	1.11	0.00	1.72	0.00	0.21	0.01	0.02	0.00	0.89	0.00	0.95	0.00
14	0.00	0.00	2.11	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.49	0.47	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	1.43	0.17	1.59	0.01	0.00	0.00	0.00	0.01
17	0.00	0.51	0.70	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.01	0.00	0.00	0.59	0.00	0.00	0.17	0.58	1.10	0.00	0.00
19	0.00	0.05	0.79	0.00	0.02	0.00	0.00	0.00	0.41	0.00	0.00	0.00
20	0.71	0.00	0.01	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00
21	0.27	0.00	0.00	0.00	0.00	0.03	0.28	0.00	0.00	0.00	0.06	0.00
22	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.50	0.13	0.00	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00
24	0.00	0.34	0.37	0.01	0.05	0.00	0.21	0.00	1.02	0.00	0.02	0.00
25	0.91	0.20	0.59	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
26	0.14	0.00	0.00	0.37	0.00	0.00	0.05	0.00	0.00	0.00	0.00	1.12
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
28	0.00	0.08	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		1.19	0.71	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.11
31	0.00		0.00		0.45		0.09	0.00		0.00		0.81
SUM	5.89	3.86	8.99	2.14	7.08	2.35	4.24	0.50	7.29	2.51	1.98	2.54

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1976, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.70	0.00	0.00	0.46	0.59	0.00	0.00	0.00	0.00	0.25	0.00	0.00
2	0.00	0.53	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.75	0.00	0.00
3	0.00	0.04	0.00	0.00	0.00	2.64	0.00	0.03	0.03	0.00	0.00	0.00
4	0.34	0.00	0.00	0.00	0.00	1.43	0.29	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.04	0.00	0.22	0.00	0.00	0.00	0.00	1.64
8	0.32	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.00	0.57	0.00	0.18
9	0.00	0.00	0.74	0.00	0.00	0.00	0.00	0.04	0.00	4.40	0.00	0.03
10	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00
12	0.09	0.00	0.00	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.17	0.38
13	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
14	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	1.11	0.00	0.10	0.00
16	0.00	0.00	0.16	0.00	0.98	0.00	0.00	0.39	0.39	0.00	0.07	0.94
17	0.09	0.00	0.05	0.00	0.00	0.42	0.00	0.05	0.09	0.10	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
19	0.00	0.34	0.00	0.00	0.35	0.05	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.87	0.00	0.00
21	0.00	0.00	0.21	0.00	0.00	0.95	0.00	0.23	0.01	0.27	0.00	0.60
22	0.00	0.79	0.06	0.14	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
23	0.00	0.11	0.00	0.00	0.00	1.64	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
26	0.00	0.00	0.00	0.04	0.34	0.00	0.00	0.00	0.00	0.52	0.00	0.54
27	0.46	0.00	0.16	0.00	0.00	0.04	0.00	0.00	0.34	0.00	0.35	0.00
28	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.23	0.00
29	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.35	0.06	0.00	1.23	0.00
30	0.00		0.82	0.00	0.67	0.00	0.00	0.07	0.13	0.00	0.02	0.00
31	0.00		0.11		0.00		0.13	0.00		0.61		0.07
SUM	3.17	1.81	2.94	0.65	3.88	7.36	0.87	2.57	2.25	8.56	2.17	4.54

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1977, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.26	0.05	0.00	0.00	0.00	0.00	0.70
2	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.72	0.00	0.00
3	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.08	0.00	0.04	0.02	0.00
4	0.00	0.00	0.00	0.43	0.92	0.00	0.00	0.06	0.00	0.00	0.11	0.00
5	0.10	0.00	0.35	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.33
6	0.01	0.00	0.44	0.02	0.08	0.00	0.00	0.00	0.00	0.00	2.48	0.88
7	0.36	0.00	0.31	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.12	0.00
8	0.00	0.00	0.00	0.00	0.19	0.00	0.00	1.62	5.12	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.52	1.25	0.64	0.00	0.00
10	1.41	0.00	0.00	0.00	0.00	0.05	0.72	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.06	0.00	0.00	0.00	0.00
13	0.00	0.33	0.33	0.00	0.00	0.04	0.17	0.02	0.00	1.04	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.32	0.00	0.00	0.29
15	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.29
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.20	0.13	0.33	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.22	0.07
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.28
19	0.00	0.04	0.00	0.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	0.08
20	0.00	0.00	0.29	0.01	0.21	0.15	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.10
22	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.07	0.00	0.03	0.43	0.00	0.00	0.00	0.00	0.68	0.00
24	0.00	0.48	0.00	0.54	0.02	0.00	0.00	0.30	0.00	0.00	0.20	0.00
25	0.16	0.22	0.00	0.36	0.28	0.11	0.00	0.14	0.00	0.00	0.04	0.35
26	0.00	0.00	0.00	0.00	0.09	0.02	0.06	0.00	0.00	3.71	0.28	0.00
27	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.56	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00
30	0.00		1.20	0.00	0.07	0.00	0.02	0.00	0.00	0.00	0.00	0.00
31	0.00		0.13		0.00		0.00	0.00		0.00		0.39
SUM	2.43	1.63	3.82	3.39	2.11	1.58	1.05	6.59	7.55	6.48	4.88	3.76

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1978, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.28	0.00	0.07	0.00	0.01	0.37	0.00	1.22	0.00	0.00
2	0.00	0.11	0.00	0.00	0.00	0.00	0.16	0.06	0.44	0.00	0.00	0.00
3	0.00	0.00	0.82	0.00	0.00	0.00	0.15	0.52	2.10	0.00	0.00	0.15
4	0.00	0.00	0.00	0.00	0.18	0.14	0.00	0.62	0.00	0.00	0.00	0.85
5	0.00	0.00	0.00	0.00	2.82	0.00	0.00	0.16	0.00	0.28	0.00	1.31
6	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.76	0.00	0.26	0.00	0.00
7	0.21	0.00	0.00	0.00	0.00	0.06	0.00	0.12	0.00	0.00	0.00	0.00
8	0.83	0.00	0.00	0.00	0.82	0.77	0.00	0.03	0.00	0.00	0.44	0.03
9	0.96	0.00	0.16	0.00	0.21	1.71	0.00	0.00	0.00	0.00	0.00	1.02
10	0.00	0.00	1.30	0.00	0.00	0.15	0.00	0.09	0.00	0.00	0.00	0.00
11	0.00	0.00	0.38	0.00	0.00	0.00	0.02	0.01	0.18	0.00	0.00	0.00
12	0.00	0.00	0.00	0.05	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
13	0.36	0.00	0.03	0.05	0.07	0.00	0.00	0.01	0.00	0.00	0.00	0.00
14	0.63	0.06	0.00	0.00	0.21	0.00	0.55	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.18	0.00	0.00	0.00	0.58	0.70	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.22	0.00	2.74	0.00	0.00	0.00	0.26	0.08
17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.07
18	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00
19	0.00	0.09	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
20	1.14	0.05	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
21	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.23
22	0.00	0.06	0.02	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.05	0.00	0.39	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.17	0.71
25	1.26	0.00	0.26	0.61	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00
26	1.64	0.00	1.60	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.06	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00
30	0.00		0.00	0.08	0.00	0.00	0.00	0.21	0.00	0.00	0.06	0.00
31	0.00		0.00		0.00		0.00	0.35		0.00		0.13
SUM	7.58	0.37	5.09	3.35	4.60	3.24	6.02	5.01	2.84	1.76	3.23	4.67

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(*Continued from previous page*)

Year: 1979, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.03	0.00	0.04	0.00	0.00	0.01	0.00	0.00	0.08	0.00	0.00	0.00
2	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.31	1.16	0.00
3	0.00	0.00	0.00	0.63	0.04	0.49	0.00	0.23	0.00	0.00	0.12	0.00
4	0.00	0.00	0.13	0.70	0.00	0.04	0.00	0.00	0.03	0.00	0.00	0.00
5	0.00	0.00	2.33	0.02	0.00	0.00	0.00	0.00	2.86	1.58	0.00	0.00
6	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.27
7	0.23	0.83	0.00	0.00	0.00	0.12	0.00	0.00	0.03	0.00	0.00	0.02
8	0.39	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.08	0.26	0.30	0.00	0.00	0.61	0.92	0.00
11	0.00	0.00	0.64	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.76	0.00
12	0.42	0.00	0.00	0.00	0.17	0.00	0.34	0.11	0.00	0.00	0.02	0.00
13	0.50	0.00	0.00	0.86	0.63	0.00	0.00	0.00	0.11	0.12	0.05	0.22
14	0.06	0.00	0.06	0.00	2.32	0.00	0.08	0.00	0.41	0.00	0.00	0.01
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.39	0.70	0.01	0.00	0.00	0.00	0.00	0.07
17	0.00	0.00	0.00	0.00	0.00	3.26	0.28	0.00	0.00	0.00	0.00	0.00
18	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.03	0.05	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
20	1.29	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
21	1.04	0.19	0.00	0.00	0.03	0.00	0.56	0.00	0.40	0.00	0.00	0.00
22	0.09	0.00	0.00	0.00	0.04	0.09	0.13	0.00	0.45	0.00	0.00	0.00
23	0.00	0.26	0.34	0.00	0.10	0.33	0.00	0.62	0.00	0.20	0.02	0.00
24	0.48	2.00	0.92	0.00	0.73	0.09	0.11	0.15	0.00	0.00	0.09	0.02
25	0.00	1.25	0.03	0.01	0.37	0.01	0.00	0.39	0.08	0.00	0.01	0.51
26	0.00	0.15	0.00	1.09	0.00	0.00	0.41	0.00	0.07	0.00	0.87	0.00
27	0.00	0.00	0.18	0.15	0.00	0.00	0.02	0.00	0.08	0.00	0.00	0.00
28	0.07	0.00	0.00	0.00	0.10	0.00	0.04	0.04	0.34	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.12	0.00	0.00	1.08	0.17	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	1.52	0.05	0.00	0.07
31	0.00		0.00		0.15		0.00	0.00		0.00		0.00
SUM	5.65	5.58	4.97	3.67	5.27	5.67	2.96	2.62	6.82	2.87	4.02	1.19

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(*Continued from previous page*)

Year: 1980, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.33	0.00	0.00	0.01	0.00	0.00	0.00	0.54	0.00	0.00
2	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.07	0.00	0.00	0.00	0.05	0.00	0.29	0.00	0.00	0.00
4	0.18	0.00	0.00	0.05	0.00	0.00	1.44	0.00	1.45	0.00	0.85	0.00
5	0.17	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00
7	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.10	0.00	0.31	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.32	0.32	0.42	0.00	0.00	0.33	0.23	0.00	0.00	0.00	0.00
10	0.00	0.36	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.48
11	0.50	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
12	0.43	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.03	0.00	0.16	0.37	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00
14	1.38	0.00	0.00	0.72	0.13	0.03	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.26	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.06	0.05
17	0.06	0.00	0.52	0.00	0.00	0.24	0.00	0.06	0.00	0.00	0.34	0.00
18	1.22	0.00	1.09	0.00	1.06	0.36	2.23	0.00	0.10	0.00	0.38	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.58	0.00	0.00
20	0.00	0.00	0.54	0.00	1.51	0.00	0.00	0.00	1.66	0.00	0.00	0.00
21	0.00	0.00	1.18	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.14	0.05	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00
23	0.19	0.15	0.00	0.00	0.24	0.00	0.50	0.27	0.00	0.00	0.00	0.00
24	0.00	0.00	1.12	0.00	0.43	0.02	0.00	0.00	0.26	0.00	0.68	0.00
25	0.00	0.00	0.15	0.00	0.07	1.61	0.00	0.00	0.94	1.04	0.00	0.00
26	0.00	0.32	0.00	0.27	0.02	1.04	0.00	0.00	0.00	0.00	0.00	0.00
27	0.10	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00
28	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.06	0.23	0.02	0.23
29	0.00	0.00	0.34	0.15	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00
30	0.00		0.20	0.00	0.00	0.01	0.00	0.00	0.27	0.80	0.00	0.14
31	0.17		0.06		0.00		0.00	0.00		0.00		0.00
SUM	4.71	1.40	7.18	2.85	4.61	3.32	5.72	0.92	5.73	3.32	3.09	0.90

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1981, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.03	0.00	0.00	0.00	0.65	0.08	0.00	0.00	0.00	0.00	0.82
2	0.00	0.45	0.00	0.00	0.00	2.52	0.02	0.62	1.30	0.22	0.00	0.06
3	0.00	0.00	0.00	0.00	0.00	0.04	0.86	0.20	0.00	0.00	0.00	0.00
4	0.00	0.00	0.18	0.00	0.00	0.00	0.38	0.00	2.52	0.00	0.00	0.07
5	0.00	0.00	0.44	0.22	0.00	0.00	0.57	0.00	0.77	0.00	0.52	0.00
6	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.11	0.00	0.00	0.00	0.00
7	0.11	0.00	0.00	0.00	0.58	0.07	0.06	0.00	0.09	0.00	0.00	0.00
8	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.42	0.01	0.00	0.00	0.00
9	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00
10	0.00	0.02	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	1.13	0.00	0.00	0.17	0.00	0.00	0.07	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.68
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	1.21
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.27
17	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.05	0.13	0.00	0.02	0.00
18	0.00	0.12	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.11	0.00	0.00
19	0.00	0.61	0.00	0.00	0.14	0.33	0.00	0.24	0.00	0.10	0.00	0.00
20	0.00	0.54	0.00	0.26	1.86	0.13	0.33	0.00	0.00	0.00	0.00	0.00
21	0.09	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
23	0.00	0.06	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.20
24	0.00	0.00	0.00	0.09	0.00	0.00	0.06	0.00	0.00	0.00	0.27	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.59	0.00	1.44
26	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.93	0.00	0.00
27	0.02	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00	2.07	0.06	0.05
28	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.02	0.00	0.82	0.00	0.00	0.00	0.00	0.00
30	0.32		1.07	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00
31	0.00		0.00		0.22		0.01	0.00		0.00		0.77
SUM	0.54	3.04	3.14	0.93	4.47	4.54	4.60	2.26	5.55	4.56	0.87	5.76

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1982, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.63	0.34	0.00	0.01	0.00	0.35	0.04	0.22	0.07	0.00	0.00	0.29
2	0.00	0.09	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.09
3	0.73	1.54	0.00	0.14	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.08
4	1.00	0.03	0.01	0.00	0.00	0.09	0.29	0.00	0.00	0.00	1.66	0.00
5	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.07
6	0.00	0.02	0.07	0.19	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.47
7	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.03	0.22	0.11	0.00	0.00	0.00	0.00	0.47	0.00	0.00
9	0.00	0.27	0.00	0.30	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00
10	0.00	0.10	0.00	0.00	0.00	1.45	0.00	1.14	0.00	0.28	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.01	0.00	0.27
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	1.05
13	0.40	0.31	0.02	0.00	0.00	1.57	0.00	0.00	0.01	1.07	0.73	0.00
14	0.32	0.00	0.00	0.00	0.00	0.00	1.93	0.00	0.53	0.11	0.00	0.00
15	0.00	0.00	0.25	0.21	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.01
16	0.00	0.50	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13
17	0.00	0.56	0.14	0.12	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.05	0.45	0.00	0.00	0.00	0.00	0.00	0.00
19	0.20	0.05	0.03	0.00	0.29	0.00	0.00	0.00	0.06	0.00	0.17	0.07
20	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
21	0.34	0.00	0.31	0.00	1.51	0.00	0.00	0.00	0.02	0.19	0.02	0.00
22	0.14	0.00	0.00	0.00	0.20	0.08	0.21	0.00	0.44	0.00	0.00	0.00
23	0.36	0.00	0.00	0.00	0.12	0.00	0.80	0.00	0.00	0.00	0.00	0.00
24	0.14	0.00	0.00	0.00	0.30	0.31	0.02	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.02	0.22	0.00	0.04	0.00	0.00	2.12	0.00	0.00
26	0.00	0.00	0.00	0.57	0.15	0.00	0.00	0.00	0.58	0.21	0.00	0.00
27	0.00	1.29	0.00	0.48	0.02	0.34	0.00	0.00	0.06	0.00	0.08	0.00
28	0.00	0.02	0.00	0.41	0.00	0.04	0.00	0.00	0.00	0.00	0.26	0.07
29	0.00	0.00	0.00	0.00	0.47	0.03	0.67	0.00	0.00	0.00	0.62	0.12
30	0.00		0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
31	0.00		0.11		0.00		1.39	0.13		0.00		0.06
SUM	4.26	5.12	1.74	2.90	3.56	5.91	5.50	2.18	1.80	4.49	3.58	3.78

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1983, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.17	0.00	0.00	0.06	0.00	0.24	0.00	0.06	0.00	0.00
2	0.12	1.39	0.00	0.47	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00
3	0.50	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.77
4	0.00	0.00	0.00	0.00	0.63	0.37	0.00	0.66	0.00	0.00	0.16	1.30
5	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.01	0.41	0.00	0.00	0.00
6	0.00	0.61	0.82	0.22	0.00	0.00	0.35	0.00	0.00	0.07	0.00	0.71
7	0.00	0.00	0.00	0.21	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.31	0.19	0.47	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.04	0.13	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00
10	0.00	0.03	0.53	0.55	0.00	0.00	0.00	0.00	0.00	0.06	0.34	0.00
11	0.02	1.18	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00
12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.10	0.00	1.67
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.73	0.00	0.00
14	0.00	1.29	0.00	0.00	0.15	0.00	0.00	0.00	0.32	0.00	0.00	0.15
15	0.00	0.00	0.00	0.93	0.40	0.02	0.00	0.00	0.00	0.00	1.53	0.00
16	0.00	0.00	0.00	0.02	0.39	0.00	0.00	0.00	0.00	0.00	0.10	0.00
17	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.90	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.08	0.00	0.05	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.47	0.22	0.03	0.00	0.10	0.00	0.16	0.00
21	0.17	0.00	0.25	0.00	0.15	0.00	0.00	0.00	0.17	0.35	0.00	0.00
22	0.70	0.00	0.00	0.00	0.02	1.42	0.00	0.00	0.73	0.17	0.00	0.95
23	0.59	0.72	0.00	0.44	0.28	0.00	0.63	0.00	0.00	1.46	0.00	0.00
24	0.00	0.07	0.04	0.74	0.00	0.00	0.00	0.23	0.00	0.03	1.01	0.00
25	0.00	0.05	0.00	0.00	0.00	0.00	0.24	0.11	0.00	0.00	1.24	0.00
26	0.00	0.00	0.00	0.00	0.09	0.21	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.78
29	0.00	0.00	0.00	0.00	0.20	0.01	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.11	0.40	0.00	0.00	0.28	0.00	0.00	0.00
31	0.00		0.35		0.00		0.00	0.00		0.00		0.00
SUM	2.11	5.34	4.98	4.97	3.16	3.84	1.30	1.41	3.10	3.74	4.70	6.33

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1984, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.94	0.00	0.00
2	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.79	0.00	0.00	0.00	0.00
3	0.00	0.30	0.00	0.12	0.44	0.00	0.15	0.00	0.00	0.00	0.00	0.52
4	0.00	0.12	0.00	0.26	0.18	0.00	0.00	0.11	0.00	0.00	0.48	0.00
5	0.04	0.07	0.77	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.73
6	0.00	0.48	0.30	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.27
7	0.00	0.00	0.10	0.00	1.12	0.00	0.18	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.22	0.00	0.06	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.22	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.79	0.00	0.00	2.15	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.04
11	0.85	0.07	0.00	0.01	0.00	0.00	0.00	0.31	0.00	0.00	0.15	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
13	0.08	0.00	0.58	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
14	0.02	1.94	0.00	0.00	0.00	0.00	1.20	0.01	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.10	0.00	0.05	1.00	0.00	0.00	0.00	0.00	0.00
18	0.62	0.00	0.00	0.00	0.00	0.00	2.23	0.00	0.00	0.00	0.00	0.00
19	0.38	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00
20	0.00	0.00	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03
21	0.00	0.00	0.47	0.00	0.00	1.03	0.00	0.00	0.00	0.03	0.00	0.02
22	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.26
23	0.00	2.00	0.00	0.81	0.36	0.13	0.00	0.00	0.00	0.00	0.00	0.00
24	0.91	0.02	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.12	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00
27	0.00	1.17	0.00	0.00	1.19	0.00	1.41	0.00	0.00	0.00	0.00	0.00
28	0.00	0.09	1.12	0.00	1.18	0.00	2.30	0.00	0.00	0.00	0.70	0.00
29	0.00	0.00	1.05	0.69	0.92	0.87	0.60	0.03	0.00	0.09	0.00	0.00
30	0.08		0.00	0.01	0.48	1.14	0.03	0.00	0.64	0.30	0.00	0.00
31	0.00		0.00		0.00		0.02	0.14		0.00		0.00
SUM	3.89	6.26	4.97	4.80	6.65	3.22	9.80	2.34	0.64	1.77	1.66	1.87

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1985, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	1.54	0.00	0.05	0.00	0.00	0.30	0.10	0.00	0.00	0.09	0.22
2	0.15	0.59	0.00	0.00	0.36	0.24	0.00	0.35	0.00	2.25	0.31	0.07
3	1.28	0.00	0.00	0.00	0.06	0.00	0.05	0.00	0.00	1.12	0.32	0.00
4	0.95	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.46	0.00
5	0.00	0.58	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.12	0.00
6	0.00	0.12	0.00	0.24	0.00	0.38	0.08	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	1.00	0.02	0.00	0.12	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	1.53	0.00	0.57	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.35	0.00	0.03	0.00	0.00	0.00	0.00	0.00
12	0.00	0.96	0.00	0.00	0.04	0.25	0.00	0.00	0.00	0.00	0.00	0.30
13	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.53
14	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.04	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	1.24	3.55	0.09	0.27	0.00	0.00	0.63	0.15	0.00
17	0.25	0.00	0.00	0.04	0.33	0.04	0.00	1.70	0.00	0.00	0.01	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.01	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.03	0.08
21	0.00	0.00	0.00	0.00	0.25	0.00	0.00	3.12	0.00	0.11	1.32	0.00
22	0.00	0.00	0.75	0.00	0.01	0.00	0.05	0.00	0.00	0.12	0.91	0.00
23	0.00	0.00	0.23	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.07	0.00	0.04	0.00	0.22	0.10	0.00	0.00	0.00	0.00
25	0.00	0.05	0.00	0.67	0.00	0.00	0.67	0.63	0.15	0.00	0.00	0.00
26	0.00	0.83	0.00	0.00	0.00	0.00	0.04	0.12	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
28	0.32	0.00	0.00	0.00	0.02	0.00	0.47	0.52	0.00	0.00	0.00	0.00
29	0.06	0.00	0.00	0.00	0.00	0.50	0.13	0.00	0.00	0.00	0.40	0.00
30	0.00		0.00	0.00	0.00	0.26	0.00	0.92	0.00	0.07	1.63	0.00
31	0.42		0.00		0.00		0.00	0.38		0.02		0.20
SUM	3.45	4.67	1.05	2.28	5.24	4.33	4.21	8.93	0.27	4.32	5.76	1.40

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(Continued from previous page)

Year: 1986, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.15	0.14
2	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.07	0.00	0.10	0.55
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.21	0.00	0.00	0.17
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.67	0.00	0.00	0.00
5	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.06	0.00
6	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.02	0.00
7	0.00	0.09	0.00	0.18	0.02	0.00	0.00	0.02	0.00	0.00	1.23	0.00
8	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.12	0.00	0.00	0.30	0.20
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.16
10	0.00	0.10	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.40
11	0.00	0.33	0.00	0.00	0.00	0.00	0.02	1.33	0.00	0.00	0.80	0.72
12	0.00	0.00	0.00	0.00	0.02	0.00	0.00	1.38	0.03	0.00	0.06	0.00
13	0.00	0.00	0.44	0.00	0.14	0.50	0.00	1.46	0.00	0.72	0.00	0.00
14	0.00	0.00	0.70	0.00	0.05	0.00	0.15	0.00	0.00	1.62	0.00	0.00
15	0.00	0.19	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.40	0.00
16	0.00	0.00	0.15	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
18	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.04
19	0.85	0.06	0.60	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
20	0.00	0.05	0.33	0.00	0.46	0.00	0.00	0.33	0.00	0.00	0.64	0.00
21	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.02	0.21	0.00	0.03	0.00
22	0.00	0.00	0.00	0.11	0.00	0.00	0.20	0.01	0.00	0.00	0.00	0.00
23	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05
24	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	1.26
25	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.45	0.02	0.00
26	0.13	0.00	0.00	0.05	0.00	0.00	2.88	0.00	0.00	1.12	1.06	0.00
27	0.00	0.09	0.00	0.04	0.23	0.00	0.66	0.00	0.00	0.00	0.01	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.05		0.00	0.05		0.00		0.00
SUM	1.20	1.34	2.25	0.67	1.07	0.62	4.70	6.77	1.99	4.02	4.92	3.69

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1987, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.61	0.00	1.52	0.00	0.00	0.00	0.00	1.53	0.00	0.00	0.00	0.00
2	0.04	0.25	0.00	0.00	0.00	0.00	0.12	0.00	0.25	0.00	0.00	0.00
3	0.00	0.00	0.00	0.08	0.00	0.00	0.13	0.04	0.04	0.00	0.00	0.00
4	0.00	0.00	0.00	0.19	0.00	1.63	0.03	0.14	0.00	0.00	0.00	0.05
5	0.00	0.00	0.00	0.00	0.00	0.10	0.81	0.00	1.42	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	2.60	0.02	0.00	0.00
8	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	1.95	0.00	0.00	0.00
9	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.04	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.93	1.18
11	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.72	0.00	0.51	0.10
12	0.00	0.00	0.05	0.01	0.00	0.00	0.22	0.00	0.37	0.00	0.00	0.00
13	0.00	0.00	0.00	0.09	0.06	0.41	0.02	0.00	0.06	0.00	0.00	0.00
14	0.00	0.02	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
15	0.03	0.02	0.00	2.10	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.94
16	0.00	0.38	0.03	1.34	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
17	0.19	0.34	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00
18	0.85	0.00	0.00	0.09	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
19	0.66	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.04	0.00	0.13	0.01
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.16
22	1.55	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
23	0.00	0.50	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.05
24	0.00	0.00	0.00	2.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.09	0.00	0.35	0.55	0.08	0.45	0.00	0.00	0.00	0.00	0.00	0.36
26	0.55	0.00	0.06	0.03	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	1.18	0.01	0.00	0.07	0.07	0.00	0.00	0.00	0.75	1.57	0.33
28	0.00	1.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.59
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.02
30	0.00		0.67	0.00	0.00	0.00	0.97	0.15	0.48	0.00	0.00	0.00
31	0.00		0.42		0.00		0.02	0.02		0.00		0.00
SUM	4.61	4.36	5.06	6.83	0.70	3.11	2.66	2.66	8.12	0.82	3.75	3.89

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1988, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.24	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00
2	0.17	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.00
3	0.46	0.12	0.01	0.00	0.00	0.11	0.00	0.00	0.20	1.01	0.00	0.00
4	0.15	0.76	0.00	0.28	0.70	0.00	0.02	0.10	1.08	1.17	0.00	0.00
5	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.01	0.52	0.00	0.13	0.00
6	0.00	0.00	0.00	0.03	0.06	0.00	0.00	0.03	0.00	0.00	0.00	0.00
7	0.50	0.00	0.00	0.47	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
8	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.30	0.00	0.03	0.87	0.30	0.00	1.15	0.00	0.00	0.25
10	0.00	0.00	0.50	0.00	0.38	0.63	0.00	0.00	0.43	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.17	0.11	0.00	1.70	0.01	0.00	0.00	0.00
12	0.00	0.06	0.00	0.75	0.00	0.00	0.65	0.23	0.00	0.00	0.00	0.00
13	0.13	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00
15	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.28	0.00	0.05	0.56	0.00	0.08	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.92	0.08	0.00	0.00	1.40	0.00	0.47	0.00
18	0.23	0.00	0.16	0.12	0.21	0.01	0.00	0.00	0.18	0.00	0.00	0.00
19	0.30	0.27	0.48	0.71	0.00	0.00	0.00	0.00	0.01	0.20	0.02	0.00
20	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.16	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.50	0.00	0.03
22	0.00	0.00	0.00	0.00	0.00	0.00	0.73	2.87	0.00	0.00	0.00	0.04
23	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.10	0.10
24	0.00	0.05	0.00	0.07	0.03	0.15	0.04	0.06	0.00	0.00	0.00	0.20
25	0.30	0.00	0.00	0.00	0.10	0.00	0.04	0.00	0.81	0.00	0.00	0.06
26	0.00	0.00	0.99	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.05	0.00	0.00	0.02	0.33	0.00	0.00	0.00	0.99	0.00
28	0.00	0.00	0.00	0.08	0.00	0.00	0.06	0.06	0.00	0.00	0.98	0.07
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.06	0.00	0.55	0.00	0.00	0.00	0.02
31	0.00		0.00		0.00		0.00	0.00		0.16		0.57
SUM	3.13	1.78	2.79	2.56	3.46	2.04	3.48	7.15	5.79	3.59	3.67	1.34

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1989, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.77	0.00	0.00	0.00	0.53	0.00	0.00	1.16	0.00	2.72	0.00	0.00
2	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00	0.47	0.03	0.00
3	0.00	0.00	0.48	0.12	0.00	0.70	0.00	0.00	0.00	0.00	0.02	0.00
4	0.00	0.00	0.04	0.02	0.00	0.04	0.99	0.00	0.00	0.00	0.00	0.00
5	0.00	0.46	0.23	0.59	0.25	0.54	0.13	0.02	0.10	0.00	0.00	0.00
6	0.10	0.08	0.86	0.05	0.92	0.12	0.11	0.00	0.05	0.00	0.37	0.00
7	0.02	0.22	0.07	0.85	0.03	0.08	0.73	0.11	0.01	0.00	0.02	0.00
8	0.17	0.00	0.00	0.25	0.00	0.00	0.02	0.00	0.00	0.00	0.20	1.50
9	0.22	0.00	0.00	0.02	0.12	1.15	0.29	0.00	0.00	0.00	0.00	0.10
10	0.07	0.00	0.00	0.00	0.26	0.10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
13	0.25	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.40
14	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.03	0.00	0.00	0.00	0.00
15	0.14	0.00	0.00	0.66	0.41	0.32	0.00	0.00	0.00	0.00	0.29	0.00
16	0.00	0.00	0.50	0.09	0.00	0.70	0.18	0.00	1.13	0.00	0.85	0.00
17	0.00	0.96	0.00	0.00	0.00	0.22	0.29	0.00	0.00	0.16	0.00	0.00
18	0.00	0.82	0.68	0.00	0.00	0.00	0.00	0.30	0.00	0.35	0.00	0.00
19	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.21	0.00	3.35	0.00	0.00
20	0.00	0.12	0.23	0.00	0.00	0.00	0.45	0.00	0.05	0.00	0.00	0.00
21	0.00	0.46	0.23	0.00	0.00	0.54	0.00	0.00	0.10	0.00	0.00	0.00
22	0.00	0.09	0.27	0.00	0.00	1.14	0.85	0.00	1.27	0.00	0.28	0.00
23	0.00	0.15	0.75	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.80	0.00
24	0.00	0.21	1.18	0.00	0.00	0.87	0.00	0.36	0.10	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.00
27	0.00	0.85	0.00	0.00	0.00	0.00	1.22	0.17	0.00	0.00	0.00	0.00
28	0.00	1.20	0.00	0.95	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.64	0.00	0.17	0.08	0.00	0.00	0.00	0.00	0.00
30	0.00		0.08	0.06	0.00	0.00	0.00	1.02	1.00	0.00	0.00	0.06
31	0.00		0.28		0.00		0.00	0.00		0.00		0.59
SUM	2.08	5.69	5.88	4.30	4.74	6.80	5.44	3.38	5.03	7.05	2.86	3.57

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(*Continued from previous page*)

Year: 1990, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.50	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.25	0.00	0.00
2	0.00	0.00	0.15	0.00	0.46	0.00	0.05	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.73	0.10	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.20
4	0.31	1.60	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.33	0.00	0.47
5	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.50	0.00	0.00	0.00	0.01	0.00	0.00	0.95	0.00	0.00	0.04	0.00
7	0.05	0.04	0.00	0.65	0.15	0.00	0.00	0.07	0.00	0.00	0.00	0.00
8	0.80	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.07
9	0.00	0.00	0.06	0.00	0.05	0.15	0.00	0.00	0.03	0.00	0.34	0.00
10	0.00	1.12	0.00	0.02	0.63	0.17	0.00	0.00	0.00	0.20	1.54	0.00
11	0.00	0.02	0.00	0.30	0.00	0.00	0.03	0.31	0.28	4.82	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.05	1.15	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.96	1.50	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.04	0.00	0.00	0.01
15	0.00	0.00	0.00	1.27	0.00	0.05	0.07	0.00	0.00	0.00	0.00	0.05
16	0.00	1.58	0.05	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.93	0.00	0.01	0.00	0.00	0.24	0.00	0.00	0.02	0.02
18	0.07	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00
19	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48
20	0.00	0.00	0.23	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.20
21	0.91	0.00	0.00	0.00	0.06	0.00	0.00	0.18	0.00	0.00	0.00	0.21
22	0.00	0.85	0.00	0.07	1.35	0.54	0.00	0.10	0.15	0.60	0.00	0.10
23	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	2.65	0.02	0.11
24	0.16	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
25	1.22	0.00	0.00	0.00	0.12	0.00	0.00	0.28	0.00	0.55	0.00	0.00
26	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00
27	0.00	0.00	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.32
28	0.00	0.00	0.00	0.17	4.05	0.00	0.00	0.00	0.00	0.00	0.20	0.10
29	0.08	0.00	0.75	0.57	0.83	0.00	0.00	0.00	0.00	0.00	0.35	0.03
30	0.16		0.03	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
31	0.00		0.36		0.00		0.00	0.00		0.00		0.00
SUM	4.98	5.91	3.29	3.27	10.53	1.69	1.87	2.39	1.51	12.63	2.51	2.84

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina

(*Continued from previous page*)

Year: 1991, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.27	0.00	--	--	--	--	--
2	0.00	0.00	0.56	0.00	0.06	0.54	0.00	--	--	--	--	--
3	0.51	0.00	0.97	0.00	0.00	0.01	0.00	--	--	--	--	--
4	0.20	0.00	0.64	0.00	0.00	0.00	1.68	--	--	--	--	--
5	0.00	0.00	0.00	0.34	0.00	0.00	0.46	--	--	--	--	--
6	0.00	0.09	0.02	0.00	0.14	0.00	0.00	--	--	--	--	--
7	0.89	0.08	0.02	0.00	0.03	0.00	0.00	--	--	--	--	--
8	0.23	0.00	0.38	0.07	0.00	0.00	--	--	--	--	--	--
9	0.06	0.00	0.00	0.30	0.04	0.00	--	--	--	--	--	--
10	0.00	0.00	0.00	0.18	0.00	0.00	--	--	--	--	--	--
11	1.45	0.00	0.00	0.00	0.12	0.00	--	--	--	--	--	--
12	0.15	0.00	0.02	0.00	1.10	0.02	--	--	--	--	--	--
13	0.00	0.10	0.26	0.17	0.00	0.00	--	--	--	--	--	--
14	0.00	0.25	0.02	0.41	0.00	0.00	--	--	--	--	--	--
15	0.00	0.00	0.00	0.39	0.00	0.00	--	--	--	--	--	--
16	0.62	0.00	0.00	0.51	0.00	0.00	--	--	--	--	--	--
17	0.00	0.00	0.00	0.00	0.06	0.23	--	--	--	--	--	--
18	0.00	0.81	0.67	0.00	0.00	0.03	--	--	--	--	--	--
19	0.00	0.00	0.00	0.80	1.51	0.07	--	--	--	--	--	--
20	0.74	0.13	0.00	0.05	0.56	0.00	--	--	--	--	--	--
21	0.00	0.00	0.00	0.72	0.16	0.71	--	--	--	--	--	--
22	0.00	0.00	0.03	0.00	0.00	0.11	--	--	--	--	--	--
23	0.00	0.08	0.06	0.00	0.00	0.20	--	--	--	--	--	--
24	0.00	0.00	0.00	0.00	0.00	0.00	0.81	--	--	--	--	--
25	0.00	0.00	0.00	0.00	0.00	0.00	--	--	--	--	--	--
26	0.00	0.44	0.00	0.00	0.00	0.00	--	--	--	--	--	--
27	0.00	0.00	0.00	0.02	0.00	0.00	--	--	--	--	--	--
28	0.00	0.00	0.02	0.02	0.25	0.00	--	--	--	--	--	--
29	0.00	0.00	3.16	0.00	0.00	0.00	--	--	--	--	--	--
30	0.16		0.10	2.60	0.00	0.00	1.80	--	--	--	--	--
31	0.07		0.00		0.00		--	--		--		--
SUM	5.08	1.98	6.93	6.58	4.03	2.19	4.75	--	--	--	--	--

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1992, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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	--		--		--		--	--		--		--
SUM	--	--	--	--	--	--	--	--	--	--	--	--

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1993, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	--	--	--	1.42	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2	--	--	--	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
3	--	--	--	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00
4	--	--	--	0.00	0.00	0.00	0.00	0.25	0.01	0.00	0.00	0.00
5	--	--	--	0.03	1.03	0.26	0.00	0.00	0.27	0.00	0.33	1.28
6	--	--	--	0.90	0.00	0.00	0.02	0.00	0.01	0.00	0.13	0.00
7	--	--	--	0.01	0.00	0.00	0.00	0.15	0.00	0.00	0.11	0.00
8	--	--	--	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
9	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
10	--	--	--	0.67	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
11	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
12	--	--	--	0.00	0.10	0.05	0.02	0.02	0.00	0.07	0.00	0.00
13	--	--	--	0.00	0.00	1.23	0.02	0.05	0.00	0.00	0.00	0.00
14	--	--	--	0.00	0.32	0.21	0.00	0.40	0.00	0.00	0.00	0.00
15	--	--	--	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.06	0.57
16	--	--	--	0.28	0.00	0.00	0.00	0.00	0.48	--	0.01	0.25
17	--	--	--	0.01	0.00	0.00	0.00	0.00	1.61	0.09	0.00	0.00
18	--	--	--	0.00	0.03	0.00	0.00	0.47	0.02	0.03	0.00	0.00
19	--	--	--	0.00	1.27	0.00	0.01	0.00	0.00	0.00	0.00	0.18
20	--	--	--	0.00	0.44	0.00	0.43	0.00	0.00	0.00	0.03	0.00
21	--	--	--	0.00	0.00	0.00	0.00	0.64	0.15	0.00	0.00	0.85
22	--	--	--	0.02	0.00	0.01	0.00	0.00	0.00	0.03	0.00	0.00
23	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
24	--	--	--	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
25	--	--	--	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
26	--	--	--	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	--	--	--	0.38	0.00	0.00	0.01	0.03	0.00	0.00	0.49	0.00
28	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.39	0.00
29	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
30	--		--	0.00	0.00	0.19	0.00	0.00	0.00	1.06	0.00	0.00
31	--		--		0.00		0.00	0.00		0.13		0.00
SUM	--	--	--	3.72	3.44	1.97	1.00	2.06	2.96	1.44	2.55	3.97

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1994, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.06	0.00	0.01	0.00	0.20	0.00	0.05	0.00	0.11	0.00
2	0.10	0.00	1.82	0.00	0.01	0.00	0.00	0.14	0.60	0.00	0.01	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.31	0.00	0.00	0.00
4	0.83	0.00	0.01	0.01	1.03	0.00	0.00	0.42	0.16	0.00	0.00	0.08
5	0.00	0.09	0.00	0.00	0.01	0.00	0.03	0.01	0.02	0.00	0.00	0.83
6	0.00	0.27	0.00	0.16	0.00	0.00	0.00	0.02	0.05	0.00	0.01	0.00
7	0.00	0.00	0.00	0.09	0.00	0.03	0.00	0.00	0.00	0.00	0.11	0.00
8	0.58	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.04	0.00	0.00
10	0.00	0.27	0.94	0.00	0.00	0.23	0.00	0.00	0.00	0.71	0.01	0.00
11	--	0.53	0.00	0.35	0.00	1.62	0.92	0.00	0.00	0.03	0.38	0.21
12	0.89	0.38	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
13	0.04	0.00	0.00	0.13	0.00	0.00	0.02	0.63	0.00	0.09	0.00	0.00
14	0.00	0.00	0.00	0.26	0.00	0.00	0.00	1.13	0.00	0.20	0.00	0.19
15	0.00	0.00	0.00	0.00	0.05	0.00	0.29	0.33	0.00	0.01	0.00	0.04
16	0.00	0.00	0.00	0.50	0.38	0.00	0.05	0.89	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.11	0.00	1.06	0.00	0.00	0.00	0.02
18	0.40	0.00	0.00	0.00	0.00	0.00	0.01	0.28	0.00	0.00	0.00	0.01
19	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.02	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.05	0.00	0.00
21	0.00	0.00	0.04	0.00	0.00	0.00	1.12	0.14	0.00	0.00	0.47	0.00
22	0.00	0.02	0.07	0.00	0.00	0.00	0.02	0.31	0.00	0.00	0.80	0.00
23	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.38	0.00	0.11
24	0.00	0.82	0.00	0.00	0.00	0.28	0.04	0.00	0.00	0.03	0.00	0.00
25	--	0.00	0.25	0.00	0.00	0.02	0.00	0.00	0.54	0.00	0.00	0.00
26	0.14	0.00	0.07	0.00	0.00	0.00	0.00	0.00	1.57	0.01	0.00	0.00
27	0.18	0.00	0.54	0.00	0.00	1.14	0.04	0.00	0.01	0.05	0.18	0.00
28	0.88	0.00	1.47	0.00	0.00	0.20	0.27	0.04	0.00	0.00	0.78	0.00
29	0.05	--	1.32	0.00	0.00	0.26	0.25	0.01	0.00	0.00	0.00	0.00
30	0.01		0.00	0.00	0.00	1.17	0.01	0.11	0.00	0.00	0.50	0.00
31	0.09		0.00		0.00		0.00	0.00		0.05		0.02
SUM	4.19	3.50	6.59	1.53	1.50	5.41	3.83	5.62	3.31	1.65	3.36	1.51

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1995, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.39	0.00	0.69	0.00	0.00	0.00	0.01	--	0.00	0.00	0.10	0.00
2	0.00	0.00	0.05	0.00	1.20	0.60	0.04	--	0.03	0.00	0.18	0.00
3	0.00	0.07	0.00	0.00	0.01	1.71	0.01	--	0.00	0.00	0.16	--
4	0.00	0.08	0.21	0.00	0.00	0.00	0.02	--	0.00	0.17	0.28	0.01
5	0.00	0.00	0.01	0.00	0.04	0.00	0.02	--	0.00	3.20	0.00	0.00
6	0.00	0.00	0.34	0.00	0.00	0.19	0.00	--	0.00	0.24	0.00	0.04
7	1.60	0.00	0.00	0.00	0.00	0.47	1.50	--	0.00	0.01	0.43	0.36
8	0.00	--	0.01	0.00	0.00	0.00	0.00	--	0.00	0.00	1.05	0.00
9	0.00	0.00	0.80	0.00	0.00	0.04	0.00	--	0.00	0.00	0.00	0.77
10	0.00	0.00	0.00	0.00	0.39	0.00	0.00	--	0.00	0.00	0.00	0.00
11	0.00	0.03	0.00	0.00	0.02	0.06	0.00	--	0.10	0.00	0.10	0.00
12	0.19	0.00	0.00	0.00	0.44	0.28	0.00	--	0.00	0.00	1.10	0.00
13	0.00	0.00	0.00	0.04	0.00	0.45	0.00	--	0.00	0.00	0.00	0.02
14	0.04	0.00	0.00	0.00	0.92	0.00	0.00	--	0.00	0.78	0.08	0.00
15	0.96	0.29	0.00	0.00	0.03	0.00	0.00	--	0.00	0.69	0.00	--
16	0.32	0.91	0.00	0.00	0.00	0.00	0.00	--	0.92	0.00	0.00	0.01
17	0.00	1.36	0.00	0.00	0.00	0.24	0.73	--	0.85	0.00	0.00	0.00
18	0.00	0.53	0.00	0.00	0.02	0.00	0.06	--	0.00	0.00	0.00	0.01
19	0.00	0.11	0.00	0.00	0.38	0.03	0.00	--	0.00	0.00	0.00	0.43
20	0.27	0.01	0.00	0.00	0.09	0.87	0.00	--	0.00	0.00	0.00	0.20
21	0.00	0.00	0.27	0.00	0.00	0.00	0.02	--	0.00	0.94	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.11	0.00	--	0.01	0.00	0.00	0.00
23	0.00	0.00	0.00	0.02	0.00	0.04	0.00	--	0.95	0.00	0.00	0.00
24	0.08	0.00	0.00	0.31	0.00	0.01	0.00	--	0.15	0.00	0.07	0.00
25	0.00	0.00	0.00	0.04	0.00	2.12	0.82	--	0.02	0.00	0.33	0.00
26	0.00	0.00	0.00	0.00	0.00	0.01	3.21	--	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.03	1.38	0.00	--	0.00	0.00	0.00	0.00
28	0.12	0.84	0.00	0.00	0.09	0.01	0.54	--	0.00	2.01	0.01	0.00
29	0.35	--	0.00	0.00	0.08	0.14	0.71	--	0.00	0.00	0.45	0.00
30	0.01		0.00	0.00	0.01	0.03	0.01	--	0.00	0.00	0.03	0.00
31	0.08		0.00		0.00		0.00	--		0.02		0.04
SUM	4.41	4.23	2.38	0.41	3.75	8.79	7.70	--	3.03	8.06	4.37	1.89

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1996, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.09	0.00	0.00	0.46	0.06	0.00	0.00	0.66	0.00	0.89	0.00	1.34
2	0.08	0.35	0.00	0.00	0.00	0.00	0.00	0.12	0.01	0.10	0.72	0.36
3	0.40	1.65	0.00	0.00	0.00	0.00	0.07	0.00	0.90	0.00	0.00	0.00
4	0.00	--	0.00	0.00	0.00	0.29	0.00	0.74	0.27	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.88	0.00	0.00	0.00
6	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.02	0.64
7	--	0.00	--	0.00	0.32	0.00	0.00	0.00	0.11	0.00	0.00	0.00
8	0.13	0.07	0.62	0.00	0.01	0.60	0.00	0.00	0.01	0.90	0.27	0.64
9	0.00	0.00	0.00	0.53	0.00	0.50	0.00	0.01	0.01	0.06	0.90	0.00
10	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.01	0.00	0.26	0.00	0.00
11	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.33	0.02	0.00	0.00
12	0.27	0.00	0.00	0.00	--	0.00	0.06	0.47	0.26	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.02	0.00	0.10	0.81	0.01	0.00	0.00	0.82
14	0.00	0.00	0.00	0.08	0.19	0.30	0.00	0.00	0.00	0.00	0.05	0.00
15	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.07	0.11	0.49	0.07	0.00	0.10	0.00	0.01	0.00	0.00	0.00
17	0.00	0.00	0.43	0.00	0.01	0.10	0.00	0.00	0.23	0.00	0.00	0.07
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.06
19	0.95	0.00	0.95	0.00	0.00	0.00	0.00	0.00	--	1.00	0.29	0.03
20	0.00	0.30	0.01	0.03	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00
21	--	0.08	0.00	0.57	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.08	0.00	0.43	0.00
23	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.08	0.01	0.00	0.00	0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.00
25	0.29	0.00	0.00	0.00	0.22	0.00	0.00	0.40	0.00	0.00	0.00	0.38
26	0.00	0.00	0.17	0.00	0.00	0.00	2.32	0.02	0.33	0.00	0.79	0.00
27	1.28	0.00	0.00	0.59	0.03	0.00	0.00	0.01	0.00	0.03	0.00	0.08
28	0.00	0.00	0.83	0.00	0.81	0.00	0.00	0.00	0.01	0.00	0.00	0.00
29	0.00	0.00	0.29	0.06	0.02	0.00	1.35	0.22	0.46	0.00	0.00	0.05
30	0.04		0.00	0.80	0.06	0.00	0.01	0.33	0.01	0.00	0.00	0.02
31	0.19		0.04		0.00		0.00	0.00		0.00		0.01
SUM	3.80	2.55	3.87	3.62	1.96	2.86	5.15	3.81	5.00	3.26	3.54	4.50

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1997, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.86	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.43	0.95
2	0.03	0.00	0.02	0.00	0.37	0.03	0.72	0.00	0.00	0.00	0.22	0.00
3	0.00	0.00	0.12	0.00	0.49	0.72	0.02	0.00	0.00	0.00	0.00	0.00
4	0.00	--	0.22	0.00	0.19	0.06	0.00	0.00	0.00	0.00	0.00	0.21
5	0.05	0.28	--	0.00	0.00	0.01	1.05	0.28	0.00	0.00	0.00	0.00
6	--	0.00	0.64	0.00	0.00	0.00	0.42	0.01	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	1.05	0.00	0.30	0.00	0.00	0.00	0.00	0.03	0.00
8	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.58	0.01	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.06
10	0.50	0.00	0.02	0.00	0.04	0.00	0.00	0.00	0.39	0.00	0.00	0.15
11	--	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.23
12	0.00	0.00	0.00	0.38	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.50	0.00	1.55	0.00	0.00	0.00	0.00	0.45	0.00
14	0.00	--	0.53	0.00	0.00	0.24	0.00	0.17	0.00	0.00	0.68	0.00
15	0.00	0.85	0.13	0.00	0.00	0.37	0.00	0.00	0.00	0.16	0.01	0.00
16	0.63	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.10	0.11	0.00	0.00
19	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.03	0.89	0.00	0.00
20	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.54	0.00	0.01	0.00	0.00
22	0.00	0.18	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.04	1.17	0.51
23	0.08	0.04	0.00	1.40	0.00	0.01	2.60	0.00	0.00	0.00	0.00	0.11
24	0.00	0.00	0.00	0.21	0.00	0.00	0.30	0.00	0.43	0.00	0.00	0.05
25	0.51	0.00	0.00	0.00	0.00	0.00	1.40	0.00	1.12	0.04	0.00	0.85
26	0.00	0.00	0.47	0.00	0.45	0.00	0.10	0.14	0.02	0.05	0.00	0.00
27	0.00	0.16	0.00	0.06	0.71	0.10	0.01	0.00	0.00	1.63	0.00	0.46
28	0.37	0.68	0.00	0.90	0.00	0.12	0.00	0.00	0.10	0.00	0.00	0.26
29	0.03	0.00	--	1.65	0.00	0.00	0.00	0.01	0.10	0.00	0.00	0.53
30	0.00		0.00	0.01	0.03	0.00	0.07	0.00	0.00	0.00	0.00	--
31	0.00		0.15		0.00		0.57	0.00		0.00		0.00
SUM	2.78	2.71	4.42	6.64	2.46	3.98	7.26	1.15	2.83	3.33	2.99	4.37

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1998, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.01	0.00	0.40	0.00	0.02	0.06	0.00	0.00	0.00	0.00
2	0.00	0.00	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
4	0.00	0.80	0.00	0.29	0.60	0.08	0.00	0.00	1.38	0.05	0.00	0.00
5	0.00	0.22	0.00	0.00	0.23	0.05	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.16	--	0.00	0.00	0.53	1.70	0.00	0.00	0.00	0.00	0.00	0.00
8	0.54	0.02	1.06	0.00	0.44	0.00	0.07	0.00	0.00	0.22	0.00	0.00
9	0.03	0.00	0.70	1.07	0.00	0.00	0.00	0.00	0.08	0.89	0.00	0.42
10	0.00	0.00	0.00	0.00	0.18	0.24	0.00	0.35	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.36	0.00	0.00	0.33	0.00
12	0.00	0.24	--	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
13	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.71
14	0.04	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00
15	0.83	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.38	0.00
16	0.55	0.08	0.09	0.00	0.00	0.08	0.00	0.17	0.00	0.00	0.00	0.50
17	0.23	1.25	0.00	2.12	0.00	0.00	0.00	0.40	0.00	0.00	0.39	0.00
18	0.00	0.21	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.42	0.02	0.86	0.27	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
20	0.00	0.05	--	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
21	0.00	0.01	0.69	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
23	0.81	0.62	0.00	0.09	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
24	0.08	0.07	0.00	0.27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.94
25	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00	0.83
26	0.00	0.00	0.01	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.52	0.00
27	0.15	0.33	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	2.18	0.04	0.00	0.22	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
29	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.00
SUM	6.13	4.23	3.63	5.64	3.43	2.97	1.66	1.40	2.57	1.19	2.08	4.50

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 1999, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.48	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00
2	0.00	0.66	0.00	0.02	0.00	0.00	--	0.00	0.00	0.00	0.46	0.00
3	1.55	0.00	0.00	0.00	0.00	0.03	0.20	0.00	0.00	0.00	0.08	0.00
4	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.33	0.00	0.00
6	0.00	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.75	0.00	0.00	0.44
7	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.18	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
10	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.11	0.14	0.00	0.00
11	0.00	0.00	0.00	0.07	0.00	0.47	0.00	0.00	0.00	1.80	0.00	0.22
12	0.00	0.00	0.00	0.04	0.00	0.00	--	0.00	0.00	0.01	0.02	0.00
13	0.00	0.07	0.00	0.00	0.00	0.00	--	0.00	0.00	0.02	0.00	0.00
14	0.00	0.00	0.00	0.00	0.08	0.00	--	0.00	0.00	0.34	0.00	0.00
15	0.42	0.00	0.61	0.00	0.00	0.16	--	0.08	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.58	0.00	0.06	0.63	0.00	1.19	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
18	0.81	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.80	0.00	0.00	0.00	0.41	0.00	0.05	0.00	0.21	0.00	0.23
21	0.00	0.00	--	0.00	0.00	0.12	0.00	0.86	0.00	0.38	0.00	0.02
22	0.00	0.00	0.53	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.33	0.78
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	2.04	0.00	0.06	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
25	0.00	0.07	0.02	0.00	0.00	0.02	0.95	1.55	0.00	0.00	0.00	0.00
26	0.00	0.00	0.02	0.00	0.02	0.41	0.00	0.47	0.00	0.00	0.43	0.00
27	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.72	0.02	0.00	0.12	0.00
28	0.00	0.00	0.00	1.78	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00
29	0.00	0.00	0.00	0.38	0.00	--	0.00	0.00	0.27	0.00	0.00	0.00
30	0.06		0.00	2.07	0.00	--	0.00	0.00	0.82	0.00	0.00	0.00
31	0.00		0.00		0.00		0.97	0.00		0.00		0.00
SUM	5.06	2.22	1.97	5.53	0.41	1.68	4.23	3.91	4.28	3.25	1.44	1.69

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 2000, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
3	0.00	0.00	0.00	0.93	--	0.00	0.00	0.65	--	0.00	0.00	0.00
4	0.00	0.00	--	0.11	0.00	0.48	0.00	0.00	1.19	0.00	0.00	0.00
5	0.58	0.00	0.50	0.00	0.00	0.11	0.00	0.44	0.13	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.20	0.13	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
9	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.91	0.00	0.00	0.10	0.00
10	1.08	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.50	0.00
11	0.22	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.99	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.55	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.64	0.01	0.00	0.07	0.00	0.00	0.00	0.41	0.30
15	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.15	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
18	0.03	0.13	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
20	0.29	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.15
21	0.00	0.00	1.10	0.00	0.47	0.00	0.00	0.00	0.07	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.20	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.73	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
25	0.30	0.00	0.00	0.38	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.25	0.04	0.33	0.00	0.30	0.00	0.42	0.00	0.61	0.00
27	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.31	0.15	0.42	0.23	0.00	0.16	0.00	0.00	0.02	0.00
29	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.06	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.00
31	0.96		0.03		0.00		0.00	0.63		0.00		0.00
SUM	3.66	1.67	3.82	3.87	2.27	1.59	0.99	4.06	2.84	0.00	1.98	1.28

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina (*Continued from previous page*)

Year: 2001, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
2	0.00	0.00	0.00	0.06	0.00	0.60	0.36	0.00	0.12	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.65	0.07	0.00	0.00	0.00	0.08	0.25	0.00	0.00	0.00
5	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.05	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.42	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.23	2.65	0.00	0.00	0.00	0.00	0.00
10	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00
11	0.00	--	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	1.54
12	0.05	0.40	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.03
13	0.14	0.00	0.00	0.05	0.00	0.00	0.07	0.00	0.00	0.03	0.00	0.10
14	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.23	0.00	0.00	0.00	0.04
15	0.00	0.24	0.25	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00
16	0.00	0.05	0.56	0.00	0.01	--	0.00	0.01	0.00	0.00	0.00	0.00
17	0.00	1.21	0.03	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.73
19	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.92	0.00	--	0.00	0.42	0.00	0.00	0.00	0.31	0.00	0.00	0.00
21	0.00	0.00	0.85	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.23	--	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.04	0.00	0.53	0.21
25	0.00	0.15	0.00	0.91	0.19	0.05	0.00	0.00	0.60	0.09	0.00	0.00
26	0.00	0.60	0.00	0.00	0.58	0.00	0.86	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.27	0.00	0.11	0.00	0.02	0.00	0.00	0.00	0.00	0.00
30	0.27		1.60	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.02		0.00		0.00
SUM	2.51	2.96	4.44	1.40	2.46	1.32	4.37	2.10	1.89	0.17	0.53	2.76

Note: "--" denotes missing data

Table D-5. Original data provided by State Climate Office (SCO) of North Carolina, Mocksville, North Carolina *(Continued from previous page)*

Year: 2002, Station: MOCKSVILLE 5 SE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	--	--	--	--	--	--	--	--	--	--
2	0.00	0.00	--	--	--	--	--	--	--	--	--	--
3	0.40	0.00	--	--	--	--	--	--	--	--	--	--
4	0.00	0.00	--	--	--	--	--	--	--	--	--	--
5	0.00	0.00	--	--	--	--	--	--	--	--	--	--
6	0.00	0.00	--	--	--	--	--	--	--	--	--	--
7	0.64	0.00	--	--	--	--	--	--	--	--	--	--
8	0.00	0.00	--	--	--	--	--	--	--	--	--	--
9	0.00	0.00	--	--	--	--	--	--	--	--	--	--
10	0.00	0.95	--	--	--	--	--	--	--	--	--	--
11	0.00	0.18	--	--	--	--	--	--	--	--	--	--
12	0.00	0.00	--	--	--	--	--	--	--	--	--	--
13	0.00	0.00	--	--	--	--	--	--	--	--	--	--
14	0.00	0.00	--	--	--	--	--	--	--	--	--	--
15	0.00	0.00	--	--	--	--	--	--	--	--	--	--
16	0.00	0.00	--	--	--	--	--	--	--	--	--	--
17	0.00	0.00	--	--	--	--	--	--	--	--	--	--
18	0.00	0.00	--	--	--	--	--	--	--	--	--	--
19	0.00	0.00	--	--	--	--	--	--	--	--	--	--
20	1.75	0.00	--	--	--	--	--	--	--	--	--	--
21	0.00	0.00	--	--	--	--	--	--	--	--	--	--
22	0.15	0.00	--	--	--	--	--	--	--	--	--	--
23	0.68	0.00	--	--	--	--	--	--	--	--	--	--
24	1.17	0.00	--	--	--	--	--	--	--	--	--	--
25	0.46	0.00	--	--	--	--	--	--	--	--	--	--
26	0.00	0.00	--	--	--	--	--	--	--	--	--	--
27	0.00	0.00	--	--	--	--	--	--	--	--	--	--
28	0.00	0.00	--	--	--	--	--	--	--	--	--	--
29	0.00	0.00	--	--	--	--	--	--	--	--	--	--
30	0.00		--	--	--	--	--	--	--	--	--	--
31	0.00		--		--		--	--		--		--
SUM	5.25	1.13	--	--	--	--	--	--	--	--	--	--

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

Year: 1960, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.51	0.00	0.40	1.22	0.75	0.00	0.11	0.00
2	0.18	0.00	0.67	0.14	0.00	0.17	0.30	0.00	0.00	0.00	0.00	0.00
3	0.52	0.00	1.41	0.49	0.00	0.09	0.00	0.00	0.04	0.87	0.03	0.00
4	0.00	0.00	0.00	0.25	0.00	0.14	0.12	0.00	0.00	0.20	0.00	0.00
5	0.00	2.16	0.00	0.88	0.00	1.06	0.00	0.05	0.00	0.00	0.00	0.00
6	0.68	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.90	0.00	0.00
7	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.57	0.30	0.00	0.00
8	0.00	0.00	0.00	0.00	1.64	0.00	0.00	0.03	0.00	0.73	0.00	0.00
9	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.38	0.00
10	0.00	0.34	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.10	0.18	0.00
11	0.00	0.75	0.00	0.00	0.00	0.00	0.05	0.04	0.67	0.00	0.00	1.11
12	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.47	0.04	0.00	0.00	0.34
13	0.00	1.68	0.00	0.00	0.01	0.00	0.00	0.13	0.00	0.00	0.00	0.02
14	0.00	0.15	0.00	0.00	0.00	0.00	0.03	0.12	0.00	0.00	0.00	0.00
15	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00
16	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.09	0.00	0.00
18	0.33	1.10	0.00	0.08	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.05	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	2.42	0.00	0.00	0.72	0.65	0.00	0.00
21	0.00	0.06	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.35
22	0.00	0.04	0.00	0.50	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.15	0.10	0.09	0.00	0.00	0.22	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
25	0.00	0.70	0.00	0.00	0.24	0.33	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
27	0.41	0.00	0.00	1.30	0.33	0.00	0.37	0.00	0.00	0.12	0.00	0.00
28	0.02	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.19	0.17	0.10	0.00
29	0.24	0.00	0.03	0.00	0.00	0.18	0.62	0.01	0.78	0.00	0.01	0.04
30	0.76		1.63	0.10	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.05
31	2.69		0.30		0.00		0.18	0.02		0.43		0.00
SUM	6.43	6.98	5.84	4.01	2.77	5.83	2.26	2.54	4.08	5.38	1.03	1.91

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1961, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.95	0.00	0.06	0.08	0.05	0.00	0.00	0.96	0.00	0.00	0.05	0.00
2	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.11	0.00	0.00
3	0.00	0.23	0.00	0.35	0.00	0.00	0.00	0.06	0.00	0.33	0.00	0.00
4	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.09	0.06	0.07	0.05	0.00
5	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.07	0.00	0.00	0.00	0.00
6	0.00	0.00	0.01	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.03
7	0.00	0.39	0.01	0.00	0.00	0.00	1.24	0.66	0.00	0.00	0.27	0.00
8	0.00	0.75	0.80	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.10	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.62	0.10	0.00	0.00	0.00	0.00	0.00	0.00	1.59
11	0.00	0.00	0.00	0.00	2.48	0.33	0.00	0.90	0.00	0.00	0.00	0.98
12	0.00	0.00	0.00	0.48	0.20	0.09	0.42	0.00	0.00	0.00	0.28	2.05
13	0.00	0.00	0.62	0.17	0.08	0.50	0.03	0.00	0.04	0.00	0.00	0.11
14	0.86	0.00	0.03	0.00	0.00	0.05	0.09	0.00	0.06	0.05	0.71	0.00
15	0.20	0.00	0.00	0.00	0.00	0.14	0.55	0.00	0.00	0.00	0.02	0.00
16	0.11	0.00	0.00	0.83	0.04	0.13	0.09	0.00	0.00	0.00	0.08	0.16
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69
18	0.00	1.38	0.31	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	1.24
19	0.42	0.06	0.26	0.00	0.05	0.00	0.13	0.00	0.12	0.00	0.00	0.01
20	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.74	0.00	0.21	0.00	0.00
21	0.08	0.84	1.58	0.00	0.00	2.25	0.20	0.00	0.00	0.00	0.00	0.00
22	0.00	0.12	0.07	0.02	0.00	0.52	0.00	0.36	0.00	0.00	0.00	0.00
23	0.00	1.30	0.01	0.00	0.10	0.00	0.20	0.18	0.00	0.00	1.10	0.35
24	0.00	0.00	0.40	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.08	0.00
25	0.00	0.83	0.00	0.00	0.04	0.00	0.00	0.51	0.00	0.00	0.00	0.00
26	0.40	0.00	0.00	0.00	0.62	0.60	0.80	0.34	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.06	0.00	0.21	0.05	0.00	0.00	0.00	0.00	0.00
28	0.00	0.12	0.00	0.02	0.00	0.01	0.00	0.52	0.00	0.00	0.00	0.44
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00
31	0.00		1.23		0.00		0.00	0.00		0.00		0.00
SUM	3.02	6.17	5.39	4.35	4.25	5.61	4.50	5.69	0.28	0.77	2.64	7.65

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1962, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.29	0.00	0.00	0.44	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.04	0.83	0.00	0.14	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.24	0.16	1.36	0.05	0.41	0.90	0.00
4	0.00	0.00	0.00	0.00	0.00	0.36	0.21	0.00	1.35	0.30	0.00	0.89
5	0.00	0.00	0.27	0.00	0.00	0.07	0.00	0.00	0.00	0.00	--	0.26
6	1.55	0.12	0.00	0.41	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.01
7	0.05	0.00	0.00	0.18	0.00	0.41	0.01	0.12	--	0.00	0.00	0.00
8	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00
9	0.00	0.39	0.40	0.00	0.20	0.00	0.00	0.33	0.00	0.00	3.82	0.00
10	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.20	0.00
11	0.00	0.00	0.39	0.50	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.55	0.37	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.11	0.00	1.20	0.03	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.24	0.00	0.00	0.00	0.00	0.35	0.00	2.10	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.74	0.00	0.02	0.00
18	0.00	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.88	0.00
19	0.07	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.28	0.06	0.00	0.00	0.00	0.00	0.12	0.03
21	0.00	--	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.24	0.04
22	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.13	0.10
23	0.38	0.73	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
24	0.13	0.23	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00
25	0.05	0.17	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	1.21
26	0.00	1.02	0.35	0.00	0.47	0.00	0.00	0.00	0.32	0.00	0.00	0.00
27	0.48	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.77	0.00	0.00	0.00
28	1.57	0.04	0.00	0.00	0.80	0.13	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.90
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.82		--		0.00	0.00		--		0.00
SUM	6.22	4.18	3.56	3.16	1.82	6.88	1.26	1.99	5.51	1.34	6.31	3.44

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina *(Continued from previous page)*

Year: 1963, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.11	0.76	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.50	0.00
2	0.00	0.01	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00
3	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.00
5	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00	1.12	0.00	0.03	0.00
6	0.00	0.00	1.59	0.49	0.00	0.64	0.00	0.00	0.59	0.00	0.58	0.00
7	0.00	0.00	0.00	1.02	0.00	--	0.04	0.53	0.02	0.00	0.00	0.00
8	0.16	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.00	0.00	0.00	0.21
9	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
11	0.09	0.26	0.26	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.09
12	1.03	0.66	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
13	0.27	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.07
14	0.00	0.00	0.00	0.00	0.00	0.15	0.20	0.00	0.02	0.00	0.00	0.40
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
16	0.00	0.00	0.21	0.00	0.67	0.30	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.38	0.03	0.57	0.25	0.02	0.00	0.01	0.00	0.00	0.00
18	0.34	0.00	0.00	0.00	0.09	0.00	0.00	0.08	0.00	0.00	0.00	0.00
19	0.35	0.66	0.00	0.00	0.00	0.00	0.05	0.36	0.00	0.00	0.00	0.00
20	0.70	0.00	0.69	0.00	0.00	0.10	0.09	0.08	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.03	0.59	0.01	0.07	0.00	0.00	0.02	0.00
22	0.00	0.00	0.00	0.43	0.00	0.07	0.04	0.22	0.00	0.00	0.00	0.00
23	0.03	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.41	1.30
24	0.00	0.19	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.06	0.00	0.59	0.00	0.00	0.00	0.00	0.00
26	0.00	0.22	0.19	0.00	0.39	0.03	0.09	0.40	0.00	0.00	0.00	0.00
27	0.00	0.02	0.20	0.00	0.69	0.63	0.00	0.00	0.00	0.00	0.02	0.00
28	0.00	0.00	0.00	0.00	0.11	0.07	0.42	0.00	1.30	0.00	0.03	0.00
29	0.00	0.00	0.00	0.46	1.22	0.09	0.48	0.00	1.70	0.03	1.68	0.00
30	0.07		0.00	1.74	0.16	0.00	0.00	0.62	0.00	0.00	0.00	0.00
31	0.00		0.00		0.03		0.13	0.00		0.00		0.10
SUM	3.04	2.97	7.37	4.20	4.13	2.95	2.30	2.56	4.82	0.03	3.58	2.68

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(Continued from previous page)

Year: 1964, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.63	0.21	0.00	0.00	0.00	1.67	0.00	0.00	0.00	0.27	0.00	0.00
2	0.00	0.00	0.39	0.00	0.00	1.21	0.00	0.03	0.00	0.08	0.00	0.00
3	0.00	0.00	0.27	0.12	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.25	0.00	3.74	0.00	0.30
5	0.00	0.00	0.46	0.02	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.12
6	0.00	1.33	0.00	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.25	0.00	0.00	1.12	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00
10	0.00	0.00	0.12	0.00	0.00	0.00	0.43	0.01	0.35	0.00	0.00	0.00
11	0.00	0.08	0.00	0.00	0.09	0.00	0.18	0.54	0.01	0.00	0.00	0.00
12	0.52	0.00	0.00	0.00	0.09	0.00	0.22	0.14	0.05	0.00	0.00	0.48
13	0.32	0.11	0.00	0.26	0.15	0.53	0.08	0.00	0.85	0.00	0.00	0.01
14	0.00	0.00	0.48	0.38	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.31	0.70	0.00	0.00	0.00	0.00	0.04	0.00	0.29	0.00	0.00
16	0.00	0.62	0.00	0.00	0.00	0.21	0.00	1.68	0.00	5.10	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.02
18	0.00	0.21	0.00	0.00	0.00	0.43	0.56	0.00	0.00	0.00	0.00	0.07
19	0.00	0.00	0.00	0.00	0.00	0.54	0.55	0.00	0.09	0.00	0.21	0.00
20	0.32	0.00	0.16	0.00	0.00	0.00	0.45	0.03	0.00	0.00	0.10	0.50
21	0.00	0.00	0.24	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.05	0.49	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
24	0.45	0.00	0.00	0.06	0.00	1.14	0.01	0.00	0.00	0.00	0.05	0.05
25	1.60	0.42	0.07	0.09	0.00	0.04	0.00	0.00	0.00	0.00	2.78	0.26
26	0.00	0.00	0.60	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
27	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.49
28	0.00	0.41	0.00	0.11	0.39	0.00	0.00	0.00	0.11	0.00	0.00	0.00
29	0.00	0.00	0.00	0.36	0.00	0.00	1.62	0.08	0.07	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.29	1.74	0.46	0.00	0.03	0.00
31	0.04		0.00		0.00		0.00	0.31		0.00		0.00
SUM	5.01	3.71	3.49	5.24	1.29	6.58	5.31	5.91	1.99	9.79	3.17	4.37

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1965, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.01	0.00	0.00	0.00	0.00	0.00	0.06	0.66	0.00	2.36	0.00	0.00
2	0.00	0.30	1.03	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
3	0.00	0.00	0.04	0.00	0.00	0.31	0.00	0.00	0.04	0.00	0.00	0.00
4	0.00	0.00	0.44	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	1.18	0.00	0.38	0.00	0.00	0.28	0.08	0.00	1.09	0.00	0.00
8	0.00	0.00	0.01	0.00	0.19	0.08	0.00	0.67	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.30	0.00	0.12	0.00	0.00	0.00	0.08	0.00	0.00
10	0.66	0.33	0.00	0.00	0.10	0.00	1.75	0.89	0.00	0.00	0.26	0.00
11	0.00	0.02	0.00	0.00	0.00	0.01	1.54	0.00	0.23	0.00	0.47	0.00
12	0.00	0.04	0.07	0.00	0.33	0.96	0.36	0.00	0.47	0.00	0.00	0.00
13	0.00	0.11	0.05	0.00	0.00	0.02	0.02	0.00	0.03	0.00	0.20	0.00
14	0.00	0.37	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	1.50	0.03	0.00	0.00	0.00	0.00	0.00
16	0.48	0.00	0.00	0.47	0.00	1.54	0.00	0.04	0.00	0.00	0.00	0.07
17	0.10	0.00	2.39	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
18	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.60	0.00	0.10	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.14	0.19	0.00	0.00	0.10	0.33	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.08	0.00	0.01	0.30	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.71	0.18	0.00
23	0.13	0.00	0.22	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.00	0.00
24	0.40	0.24	0.00	0.00	0.00	0.07	0.00	1.51	0.32	0.00	0.00	0.00
25	0.08	1.10	0.55	0.00	0.00	0.00	0.12	0.08	0.00	0.00	0.07	0.28
26	0.00	0.00	0.70	0.84	0.00	0.00	0.13	0.19	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.78	0.11	0.31	0.28	0.00	0.00	0.00	0.13	0.00
28	0.00	0.00	0.00	0.01	0.00	0.00	0.15	0.01	0.00	0.00	0.00	0.00
29	0.00	0.00	0.24	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
30	0.30		0.00	0.00	0.00	0.51	0.00	0.00	0.07	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.00
SUM	2.16	3.69	6.10	3.26	1.33	5.54	5.09	4.59	1.23	4.25	1.61	0.35

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1966, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.14	0.00	0.00	0.10	0.00	0.33	0.00	0.00	0.94	0.00	0.00
2	0.01	0.05	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.45	0.00
3	0.25	0.00	0.04	0.00	0.01	0.00	0.00	0.05	0.00	0.00	0.00	0.00
4	0.00	0.00	1.47	0.05	0.00	0.00	0.00	0.07	0.09	0.00	0.00	0.00
5	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.10	0.00	0.00	0.01
8	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.22	0.14	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.16	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.20	0.33
11	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.07
12	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
13	0.01	2.28	0.00	0.31	0.00	0.00	0.38	1.68	0.04	0.00	0.00	0.54
14	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.28	1.29	0.00	0.00	0.00
15	0.36	0.43	0.00	0.00	0.03	0.00	0.00	0.11	0.03	0.00	0.00	0.00
16	0.23	1.41	0.00	0.19	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00
17	0.00	0.03	0.00	0.00	0.02	1.26	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.29	0.00	0.00
19	0.00	0.00	0.15	0.00	0.00	0.00	0.77	0.00	2.65	1.26	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.14	0.00	0.00	0.00
22	0.83	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
23	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.51
24	0.00	0.71	0.21	0.00	0.33	0.00	0.00	0.00	0.00	0.14	0.00	0.30
25	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.17	0.00	0.00
26	0.30	0.00	0.00	0.07	0.00	0.00	0.00	2.16	0.00	0.06	0.02	0.00
27	0.05	0.02	0.00	0.11	1.51	0.00	0.00	0.00	0.04	0.00	0.00	0.00
28	0.00	1.40	0.00	0.08	0.33	0.00	0.00	0.00	0.00	0.00	0.62	0.30
29	0.20	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.39
30	0.07		0.00	0.02	0.00	0.00	1.70	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.02
SUM	2.42	7.08	1.90	1.40	3.21	2.89	3.18	4.42	4.77	2.92	1.52	2.47

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1967, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.03	0.00	0.00	0.00	0.00	0.41	0.00	0.01	0.68	0.00	0.05	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00
3	0.00	0.00	0.00	0.00	0.23	0.03	0.00	0.00	0.00	0.00	0.00	0.75
4	0.17	0.00	0.00	0.00	0.28	0.41	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.06	0.08	0.00	0.53	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	1.21	0.39	0.00	0.66	0.00	0.60	0.05	0.00	0.00	0.00	0.00
8	0.98	0.00	0.00	0.00	0.06	0.00	0.19	0.18	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.67	1.06	0.30	0.00	0.00
10	0.02	0.16	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.17	0.00	1.54
11	0.00	0.05	0.03	0.02	0.02	0.00	0.00	1.10	0.00	0.00	0.00	0.57
12	0.00	0.00	0.79	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.05
13	0.00	0.00	0.18	0.04	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
14	0.42	0.00	0.60	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.23	0.00	0.82	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.52	0.00	0.07	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.70
19	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
20	0.00	0.68	0.00	0.00	0.14	1.10	0.22	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.60	0.00	0.39	0.00	0.00	0.68	0.00	0.00	0.00	0.08
22	0.00	0.00	0.00	0.44	0.85	0.00	0.00	0.95	0.07	0.00	0.00	1.40
23	0.00	0.00	0.00	0.03	0.53	0.07	0.00	1.33	0.00	0.00	0.17	0.12
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.52	0.00
25	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.05	0.00	0.47	0.26	0.00
26	0.00	0.00	0.00	0.91	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
27	0.50	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.11	0.00	0.00	0.00
28	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	1.66
29	0.00	0.00	0.45	0.00	1.26	0.02	0.20	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.41	0.00
31	0.00		0.00		0.84		0.02	0.00		0.07		0.10
SUM	2.16	3.62	3.07	1.54	5.87	2.47	2.75	6.18	2.80	1.89	2.18	7.41

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1968, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.97	0.39	0.00	0.00	0.29
2	0.00	0.23	0.00	0.00	0.00	0.05	0.00	0.42	0.00	0.00	0.00	0.15
3	0.00	0.00	0.00	0.52	0.03	0.03	0.00	0.28	0.00	0.00	0.00	0.03
4	0.43	0.00	0.00	0.03	0.06	0.00	1.13	0.07	0.00	0.78	0.25	0.39
5	0.00	0.00	0.00	0.66	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
6	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.30	0.30	0.00
8	0.00	0.00	0.00	0.04	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.05	0.00	0.00	0.03	0.00	0.37	0.00	0.11	0.00	0.00	0.22	0.00
10	0.78	0.00	0.32	0.21	0.00	0.40	0.09	0.44	0.27	0.00	0.65	0.00
11	0.15	0.00	0.00	0.03	0.00	0.00	1.10	0.51	0.00	0.00	0.00	0.00
12	0.09	0.00	2.65	0.00	2.13	0.00	0.05	0.00	0.00	0.06	2.30	0.00
13	1.47	0.00	0.04	0.00	0.10	0.23	0.00	0.00	0.00	0.16	0.00	0.00
14	0.00	0.00	0.00	0.00	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.43
15	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.05	0.00	0.00	0.00	0.00
16	0.00	0.00	0.38	0.00	0.06	0.00	0.12	0.00	0.00	0.66	0.07	0.00
17	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
18	0.00	0.00	0.00	0.08	0.02	0.00	0.10	0.00	0.00	0.37	1.93	0.00
19	0.00	0.00	0.00	0.00	0.02	0.00	1.14	0.00	0.00	1.68	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
23	0.00	0.00	0.32	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
24	0.52	0.00	0.00	0.51	0.00	0.05	0.00	0.00	0.00	0.00	0.03	0.00
25	0.00	0.00	0.00	0.00	0.75	0.00	0.28	0.00	0.00	0.00	0.04	0.00
26	0.00	0.00	0.00	0.00	0.07	0.00	1.03	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.75	0.54	0.08	0.00	0.00	0.00	0.00	0.02
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.47
29	0.00	0.41	0.00	0.65	0.25	0.00	0.00	0.00	0.00	0.00	0.03	0.00
30	0.00		0.10	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.02		0.00		0.00	0.00		0.00		0.32
SUM	4.14	0.64	4.55	3.39	6.02	2.70	5.15	2.85	0.68	4.13	5.88	2.92

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1969, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	1.05	1.00	0.00	0.00	0.00	0.21	0.21	0.01	0.00	0.76	0.00
2	0.00	1.19	0.00	0.02	0.00	0.38	0.00	0.04	0.99	0.97	0.07	0.00
3	0.00	0.05	0.00	0.00	0.00	0.00	0.64	0.29	0.64	0.00	0.02	0.00
4	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.55	0.15	0.00	0.00	0.00
5	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00
6	0.03	0.22	0.41	0.42	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
7	0.00	0.10	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29
8	0.00	0.26	0.00	0.00	0.00	0.00	0.15	0.00	0.45	1.35	0.00	0.03
9	0.00	0.55	0.04	0.00	0.06	0.00	0.00	0.08	0.05	0.00	0.00	0.00
10	0.00	0.00	0.00	0.30	0.00	0.00	0.04	0.18	0.06	0.00	0.00	1.87
11	0.00	0.00	0.00	0.00	0.06	1.34	1.00	0.00	0.00	0.00	0.00	0.02
12	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.00	0.00	0.00	0.13	0.10
13	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.03	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.10	0.00	0.37	0.00	0.08	0.00	0.00	0.03	0.00
15	0.00	0.00	0.00	0.52	0.00	0.44	0.00	0.14	0.00	0.02	0.00	0.00
16	0.00	0.51	0.00	0.72	0.00	0.00	0.00	0.17	0.00	0.03	0.00	0.00
17	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.70	0.93	0.03	0.00	0.00	0.00	0.78	0.00	0.00	0.00
19	0.25	0.00	0.98	0.00	1.47	0.70	0.00	0.00	1.61	0.00	0.63	0.00
20	0.93	0.00	0.00	0.00	0.09	0.39	0.76	0.45	0.86	0.03	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.05
22	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	--
23	0.03	0.00	0.00	0.00	0.00	0.37	0.05	0.00	0.00	0.00	0.00	0.00
24	0.38	0.00	1.31	0.00	0.29	0.06	0.10	0.00	1.26	0.00	0.00	0.00
25	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.15
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.79
27	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.02	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00
29	0.84	0.41	0.00	0.03	0.00	0.33	0.32	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.10		0.00		0.00
SUM	2.48	4.35	5.13	3.63	2.26	4.46	4.13	3.03	7.91	2.56	1.64	4.30

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1970, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.05	0.00	0.00	0.45	0.00	0.13	0.00	0.00	0.00	0.00	0.12	0.00
2	0.00	0.72	0.00	0.84	0.00	0.10	0.00	0.40	0.00	0.00	0.00	0.00
3	0.00	0.34	0.00	0.00	0.31	0.00	0.11	0.00	0.14	0.00	0.00	0.00
4	0.00	0.00	0.09	0.00	1.45	0.36	0.10	0.00	0.19	0.00	0.52	0.00
5	0.00	0.00	0.12	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
6	0.42	0.00	0.00	0.04	0.00	0.03	0.17	0.46	0.00	0.00	0.00	0.00
7	0.03	0.00	0.00	0.00	0.00	0.28	0.00	0.02	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
9	0.00	0.15	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.10	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.13	6.39	0.00	0.00	0.17	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00
12	0.15	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
13	0.00	0.00	0.08	0.04	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	1.14	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.36	0.00
16	0.00	1.16	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.13	0.00	0.73
17	0.21	0.82	0.00	0.01	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.04	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.05	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.00	0.30	0.06	0.00	0.00	0.00	1.00	0.00	0.22	0.15	0.00
21	0.00	0.00	0.18	0.00	0.00	0.61	0.10	0.03	0.00	0.63	0.00	0.00
22	0.00	0.00	0.52	0.00	0.00	0.85	0.51	0.41	0.02	0.00	0.00	0.03
23	0.10	0.00	0.01	0.00	0.00	0.00	0.10	0.16	0.00	0.00	0.00	0.50
24	0.00	0.00	0.00	0.02	0.00	0.00	0.34	0.10	0.00	0.00	0.00	0.24
25	0.00	0.51	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.73	0.00	0.00
26	0.12	0.00	0.00	0.22	0.00	0.15	0.05	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.02	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00
28	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.73	0.41	0.32	0.05	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
30	0.15		0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	0.00	0.00
31	0.00		0.30		0.12		0.41	0.00		0.32		0.35
SUM	2.07	3.70	2.77	4.06	2.84	3.18	2.13	10.76	0.47	4.85	1.32	1.93

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1971, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.05	0.00	0.00	0.00	0.00	0.00	0.93	0.09	0.00	0.29	0.00	0.00
2	0.00	0.00	--	0.10	0.01	0.00	0.15	0.50	0.00	1.13	0.00	0.00
3	0.00	0.00	--	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.52	0.75
4	0.04	0.24	0.03	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.04
5	1.26	1.12	0.00	0.00	0.00	0.23	0.00	0.05	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.58	0.36	0.00	1.16	0.00	0.00	0.09	0.00	0.00
7	0.00	1.19	0.00	0.20	0.02	0.00	0.01	0.00	0.21	0.00	0.00	1.22
8	0.00	0.43	0.00	0.00	0.25	0.03	0.00	0.00	0.00	0.00	0.00	0.00
9	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.05	0.00
10	0.00	0.00	0.12	0.00	0.00	0.13	0.38	0.00	0.00	0.20	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.30	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.12	0.20	0.05	0.26	0.85	0.00	0.00	0.00
13	0.00	--	0.00	0.00	1.22	0.00	0.00	0.00	1.20	0.00	0.00	0.00
14	0.00	0.07	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.05	0.00	0.20	0.00	1.08	0.00	0.73	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.10	0.00	0.01	0.00	0.00	1.51	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.25	0.00	0.00	0.00	--
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	1.40	0.00	0.00	0.00
19	0.00	0.00	0.40	0.00	0.00	1.80	0.00	0.73	2.03	0.00	0.00	0.00
20	0.00	0.11	0.00	0.00	0.00	0.00	0.07	0.00	0.35	0.00	0.02	0.44
21	0.00	0.16	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
22	0.04	1.05	0.00	0.06	0.00	0.19	0.00	0.00	1.85	0.29	0.00	0.00
23	0.22	0.00	0.00	0.43	0.00	0.21	0.00	0.18	0.00	1.26	0.00	0.00
24	0.36	0.00	0.00	0.00	0.00	0.43	1.12	0.00	0.00	0.50	1.22	0.00
25	0.05	0.20	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.47	0.00	0.00
26	0.03	0.08	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.04	0.00	0.10	0.06	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	1.31	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.41	0.27	0.00	0.25	0.00	0.28	0.00	0.00	0.00	0.55	0.00
30	0.00		0.00	0.00	0.04	0.00	0.14	0.00	0.00	0.00	0.00	0.19
31	0.00		0.00		0.00		0.20	0.00		0.00		0.00
SUM	2.39	4.65	1.82	2.70	4.13	3.45	5.91	2.32	8.19	6.20	2.36	2.64

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1972, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.05	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00
2	0.12	0.39	0.75	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.00
3	0.00	--	0.19	0.00	0.95	0.00	0.05	--	0.00	0.00	0.00	0.00
4	0.46	--	0.01	0.11	0.93	0.00	0.00	--	0.00	0.00	0.00	0.00
5	0.15	0.00	0.02	0.00	0.00	0.00	0.82	--	0.00	0.38	0.00	0.00
6	0.00	0.04	0.00	0.00	0.00	0.10	0.00	--	0.00	0.00	0.00	0.64
7	0.00	0.03	0.00	0.00	0.00	0.04	0.00	--	0.00	0.00	0.01	0.01
8	0.00	0.00	0.00	0.33	1.09	0.00	0.00	--	0.00	0.00	0.89	0.11
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.00	0.11
10	0.78	0.00	0.00	0.00	0.00	0.03	0.00	--	0.00	0.00	0.00	0.04
11	0.00	0.00	0.00	0.07	0.00	0.00	0.00	--	0.00	0.00	0.00	0.16
12	0.00	0.45	0.00	0.67	0.00	0.00	0.39	--	0.00	0.00	0.00	0.10
13	0.72	0.42	0.00	0.00	0.03	0.00	0.00	--	0.00	0.00	0.00	0.01
14	0.29	0.00	0.02	0.00	2.13	0.00	0.00	--	0.00	0.00	1.41	0.06
15	0.00	0.00	0.00	0.00	0.56	0.00	0.00	--	0.00	0.00	0.00	2.46
16	0.00	0.00	0.60	0.06	0.24	0.00	0.00	--	0.00	0.03	0.00	0.00
17	0.00	0.30	0.22	0.00	0.00	0.00	0.10	--	0.34	0.00	0.02	0.00
18	0.00	0.00	0.00	0.00	0.00	0.04	0.00	--	0.03	0.00	0.00	0.00
19	0.00	0.38	0.00	0.00	0.28	1.95	0.00	--	0.00	0.30	0.56	0.00
20	0.00	0.00	0.00	0.00	0.25	0.01	0.00	--	0.00	0.00	0.38	0.00
21	0.45	0.00	0.53	0.12	0.64	7.68	0.00	--	0.00	0.00	0.00	0.79
22	0.10	0.00	0.60	0.44	0.23	0.00	0.00	--	0.00	0.00	0.00	0.97
23	0.00	0.05	0.00	0.00	0.79	0.00	0.00	--	0.00	0.12	0.00	0.11
24	0.00	0.00	0.00	0.16	0.00	0.00	0.00	--	0.00	0.01	0.00	0.02
25	0.00	0.04	0.40	0.11	0.00	0.00	0.00	--	0.00	0.00	1.24	0.04
26	0.00	0.30	0.00	0.00	0.00	0.00	0.00	--	0.00	0.00	0.04	0.05
27	0.00	0.00	0.03	0.00	0.00	0.00	0.00	--	0.00	0.04	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	0.05	1.08	0.00	0.00
29	0.00	0.00	0.21	0.00	0.00	0.02	0.07	--	0.00	0.00	0.00	0.00
30	0.05		0.02	0.00	0.02	0.35	0.24	--	1.46	0.00	0.27	0.00
31	0.00		0.41		0.00		0.12	--		0.00		0.53
SUM	3.12	2.45	4.01	2.07	8.14	10.22	1.79	--	1.88	1.96	4.82	6.21

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1973, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.01	0.01	1.00	0.00	0.00	0.00	0.70	0.00	0.46	0.13	0.00
2	0.00	2.39	0.07	0.00	0.00	0.00	0.28	0.19	0.00	0.19	0.00	0.00
3	1.11	0.00	1.01	0.00	0.62	0.00	0.00	0.89	0.35	0.00	0.00	0.00
4	0.21	0.00	0.00	0.06	0.00	0.00	0.33	0.03	0.00	0.00	0.00	0.00
5	0.02	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.33
6	0.01	0.08	0.08	0.00	0.00	2.54	0.00	0.60	0.00	0.00	0.00	0.00
7	0.17	0.01	0.03	0.83	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
8	0.47	0.26	0.26	0.28	1.06	0.00	0.00	0.00	0.00	0.00	0.01	0.25
9	0.00	0.00	0.02	0.00	0.00	0.20	0.00	0.00	0.07	0.01	0.00	0.73
10	0.00	0.00	0.01	0.20	0.14	0.00	0.00	0.00	0.03	0.00	0.00	0.01
11	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.28	0.00	0.00	0.11	0.00	0.35	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.35	0.00	0.00	0.00	0.39
14	0.00	0.67	0.00	0.00	0.00	0.28	0.00	0.00	1.28	0.01	0.00	0.00
15	0.00	0.00	0.73	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.10	0.00	0.00	0.02	1.96	0.00	0.00	0.00	0.00	0.55
17	0.00	0.00	1.89	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.03
18	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.15	0.00	0.00	0.00	0.00
19	0.22	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.51	0.00	0.00	0.00	1.10
21	0.00	0.00	0.44	0.00	0.00	0.04	0.00	0.26	0.00	0.00	0.81	0.46
22	0.15	0.00	0.00	0.00	0.00	0.16	0.00	0.03	0.00	0.00	0.03	0.00
23	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.47	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
26	0.31	0.06	0.34	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
27	0.61	0.75	0.14	2.30	0.09	0.00	0.43	0.00	0.00	0.00	0.27	0.00
28	0.19	0.00	0.01	0.00	2.60	0.14	0.00	0.00	0.00	0.29	0.30	0.05
29	0.14	0.00	0.14	0.00	0.02	2.93	0.00	0.00	0.00	0.65	0.00	0.00
30	0.00		0.26	0.00	0.00	0.00	0.00	0.09	0.02	0.00	0.00	0.52
31	0.00		0.73		0.00		0.00	0.00		0.08		0.91
SUM	3.61	4.23	7.83	5.08	5.71	7.29	3.09	4.15	1.75	1.69	1.55	7.25

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1974, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46
2	0.31	0.43	0.00	0.12	0.08	0.00	0.00	0.07	0.07	0.00	0.00	0.00
3	0.25	0.50	0.00	0.00	0.07	0.00	0.00	0.00	0.07	0.00	0.00	0.00
4	0.22	0.00	0.00	1.15	0.00	0.00	0.20	1.41	0.27	0.00	0.00	0.00
5	0.04	0.00	0.00	0.27	1.17	0.00	0.34	2.39	0.00	0.00	0.01	0.00
6	0.03	0.43	0.21	0.00	0.03	0.00	0.00	0.02	2.04	0.00	0.00	0.00
7	0.01	0.16	0.00	0.00	0.00	0.02	0.06	0.10	0.02	0.00	0.00	0.40
8	0.00	0.57	0.00	0.47	0.00	0.00	0.00	0.84	0.01	0.00	0.00	0.46
9	0.33	0.00	0.00	0.01	1.30	0.00	0.00	0.13	0.00	0.00	0.00	0.00
10	0.01	0.00	0.00	0.00	0.06	0.06	0.00	0.44	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.19	0.02
13	0.00	0.00	0.19	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
15	0.02	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.04	0.00	0.36	0.27
16	0.01	0.74	0.50	0.00	0.00	0.45	0.00	0.00	0.00	0.26	0.00	0.77
17	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.09	0.11	0.00	0.09	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.41	0.00
19	0.00	--	0.29	0.00	0.36	0.00	0.00	0.38	0.00	0.60	0.12	0.00
20	0.00	0.00	0.06	0.00	0.08	0.40	0.00	0.02	0.00	0.00	1.04	0.04
21	2.16	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
22	0.00	0.50	0.00	0.00	0.00	0.21	0.00	0.00	0.30	0.00	0.00	0.00
23	0.00	0.00	0.00	0.48	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.15	0.00	0.00	0.00	0.03	0.00	0.09	0.00	0.00	0.00	0.00	0.00
25	0.21	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.27
26	0.74	0.00	0.00	0.00	0.45	0.58	0.00	0.80	0.00	0.00	0.00	0.02
27	0.07	0.00	0.02	0.00	0.41	0.35	0.00	0.00	0.00	0.00	0.00	0.02
28	0.41	0.00	0.00	0.00	0.00	0.04	0.74	0.00	1.05	0.00	0.00	0.46
29	0.01	0.00	1.96	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.06
30	0.00		0.42	0.00	0.08	0.00	0.00	0.24	0.00	0.02	0.93	0.01
31	0.02		0.00		0.00		0.00	0.00		0.00		0.04
SUM	5.29	3.33	4.73	2.66	6.07	3.17	1.43	7.15	4.10	0.88	3.40	4.30

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1975, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.04	0.49	0.88	0.00	0.00	0.00	0.00	0.00	0.25
2	0.00	0.28	0.00	0.00	0.11	0.00	0.00	0.00	0.40	0.10	0.00	0.00
3	0.04	0.00	0.00	0.35	1.02	0.29	0.00	0.00	0.00	0.00	0.00	0.00
4	0.39	1.33	0.00	0.00	0.48	0.00	0.04	0.00	0.00	0.08	0.00	0.00
5	0.04	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.20	0.00	0.00	0.00	0.18	0.10	0.03	0.32	0.00	0.00	0.00
7	0.00	0.14	0.36	0.00	0.00	0.00	0.00	0.07	0.85	0.00	0.50	0.50
8	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.62	0.00	0.20
9	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.14	0.02
10	0.30	0.00	0.10	0.00	0.17	0.54	1.27	0.00	0.00	0.00	0.30	0.00
11	1.00	0.00	0.00	0.02	0.00	0.03	1.00	0.00	0.08	0.00	0.02	0.00
12	0.58	0.27	0.46	0.06	0.28	0.71	0.00	0.01	0.68	0.00	0.82	0.00
13	0.00	0.00	1.97	0.00	0.01	0.00	0.30	0.00	0.00	0.00	0.53	0.00
14	0.00	0.00	2.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.01
15	0.00	0.00	0.00	0.46	0.59	0.50	1.71	0.00	0.00	0.00	0.00	0.00
16	0.00	0.58	0.03	0.00	0.19	0.00	0.09	0.04	0.00	0.00	0.00	0.56
17	0.00	0.18	0.46	0.00	0.03	0.00	0.00	0.66	0.37	1.50	0.00	0.00
18	0.00	0.07	0.08	0.00	0.39	0.01	0.00	0.28	0.53	0.31	0.00	0.00
19	0.00	0.02	0.76	0.00	0.00	0.64	0.00	0.53	0.06	0.00	0.00	0.00
20	0.82	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.39	0.00	0.00	0.28	0.00	0.59	0.00	0.82	0.00	0.00	0.00
24	0.00	0.53	1.00	0.02	0.00	0.00	0.13	0.00	0.07	0.00	0.00	0.00
25	1.02	0.00	0.00	0.35	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.19
26	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.16	0.86
27	0.00	0.11	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.24	0.04	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.92	0.32	1.60	0.11	0.01	0.00	0.00	0.11	0.00	0.38
31	0.00		0.00		0.00		0.00	0.00		0.00		0.97
SUM	4.54	4.30	8.56	1.66	6.58	3.89	7.26	1.62	4.18	3.72	2.47	3.94

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1976, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.60	0.00	0.11	0.84	0.00	0.00	0.00	0.00	0.08	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.04	0.75	0.00	0.00
3	0.34	0.04	0.00	0.00	0.00	0.84	0.00	0.03	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.01	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.40
7	0.24	0.00	0.00	0.00	0.13	0.00	0.02	0.03	0.00	0.15	0.00	1.52
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	0.00	1.01	0.00	0.47
9	0.00	0.00	0.90	0.00	0.00	0.00	0.00	1.61	0.00	2.79	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.04	0.00	0.00	0.00
11	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
12	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.39
13	0.08	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.06	0.00	0.00	0.00	0.34	0.03	0.00	0.00	0.02	0.00	0.02	0.00
15	0.00	0.00	0.00	0.00	1.95	0.00	0.00	1.49	2.69	0.00	0.12	0.95
16	0.00	0.00	0.28	0.00	0.32	0.30	0.08	0.70	0.01	0.00	0.00	0.09
17	0.10	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.24	0.00	0.00
18	0.00	0.45	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.01	0.01	0.00	0.00	0.40	0.00	0.00	0.00	0.93	0.00	0.60
21	0.00	0.00	0.12	0.00	0.00	0.15	0.00	0.23	0.00	0.00	0.01	0.00
22	0.00	0.73	0.00	0.16	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00
25	0.01	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.05
26	0.06	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.33	0.11	0.02	0.50
27	1.07	0.00	0.08	0.00	0.00	0.08	0.00	0.00	0.07	0.00	0.33	0.00
28	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.42	0.01	0.00	1.03	0.00
29	0.00	0.00	0.03	0.00	2.11	0.00	0.00	0.00	0.40	0.00	0.41	0.00
30	0.00		0.86	0.00	0.00	0.00	0.30	0.01	0.73	0.02	0.00	0.00
31	0.00		0.30		0.00		0.08	0.00		0.46		0.10
SUM	2.01	1.83	3.17	0.35	7.00	4.20	0.77	6.19	4.34	7.07	2.14	5.17

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1977, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.10	0.00	0.23
2	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
3	0.09	0.00	0.00	0.47	0.00	0.00	0.00	0.15	0.00	0.00	0.01	0.00
4	0.00	0.00	0.57	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.24
5	0.05	0.00	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00	1.70	0.83
6	0.04	0.00	0.58	0.00	0.00	0.38	0.00	0.00	0.00	0.00	2.26	0.00
7	0.35	0.00	0.18	0.00	0.22	0.00	0.00	0.02	0.76	0.00	0.54	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.76	0.08	0.01	0.00
9	0.82	0.00	0.00	0.00	0.00	0.00	0.07	0.41	0.11	0.61	0.01	0.02
10	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.16	0.00	0.00	0.12	0.06	0.04	0.00	0.00	0.00	0.00
12	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.32	0.25	0.00	0.00	0.00	0.65	0.00	0.00	0.36	0.00	0.00
14	0.39	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.26	0.17	0.00	0.60
15	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.29	0.01	0.00	0.00	0.02
16	0.00	0.00	0.00	0.00	0.00	0.63	0.00	1.01	1.25	0.55	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.28	0.19	0.00	0.22	0.08
18	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.25	0.00	0.00	0.00	0.24
19	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.03	0.00	0.31	0.50	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.11
21	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00
22	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00
23	0.00	0.00	0.00	0.16	0.25	0.40	0.00	0.39	0.00	0.00	0.22	0.00
24	0.13	0.42	0.00	0.15	0.14	0.00	0.00	0.59	0.00	0.00	0.00	0.02
25	0.00	0.00	0.00	0.00	0.09	0.45	0.00	0.00	0.00	0.02	0.01	0.28
26	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	3.33	0.30	0.00
27	0.00	0.21	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.04	0.02	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
29	0.00	0.00	0.10	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.04	0.00
30	0.00		1.30	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.38	0.23
31	0.00		0.00		0.35		0.00	0.00		0.00		0.15
SUM	2.21	0.96	4.00	3.05	2.00	3.53	0.86	3.83	7.34	5.27	6.35	3.05

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1978, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.02	0.00	0.02	0.00	0.10	0.00	0.00	0.40	0.00	0.85	0.00	0.00
2	0.00	0.12	0.22	0.00	0.00	0.00	0.51	0.00	0.05	0.00	0.00	0.00
3	0.00	0.00	0.62	0.00	0.00	0.01	0.00	0.37	2.20	0.00	0.00	0.21
4	0.00	0.00	0.00	0.00	1.79	0.00	0.00	0.18	0.00	0.00	0.00	1.11
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.00	0.39	0.00	1.19
6	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.44	0.00	0.00
7	0.02	0.00	0.00	0.00	0.03	0.58	0.00	0.12	0.00	0.00	0.00	0.00
8	1.68	0.00	0.12	0.00	0.84	2.33	0.00	0.05	0.00	0.00	0.58	0.00
9	0.48	0.00	0.03	0.00	0.09	0.01	0.00	0.00	0.00	0.00	0.00	1.19
10	0.00	0.00	1.61	0.00	0.02	0.01	0.00	0.30	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.08	0.00	0.00	0.01	0.04	1.16	0.00	0.00	0.00
12	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
13	0.80	0.00	0.00	0.10	0.27	0.00	0.00	0.22	0.00	0.00	0.00	0.00
14	0.30	0.00	0.32	0.00	0.00	0.00	2.04	0.27	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.02	0.00	0.55	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.20	0.07
17	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00
18	0.01	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00
19	0.37	0.09	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
20	0.50	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
21	0.00	0.02	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.17
22	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.13
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.44	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.02	0.00	0.06	2.00
25	3.72	0.00	0.61	1.08	0.00	0.34	0.58	0.00	0.01	0.00	0.00	0.00
26	0.64	0.00	1.70	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00
28	0.00	1.16	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
30	0.00		0.00	0.07	0.00	0.29	0.00	0.03	0.00	0.00	0.00	0.00
31	0.00		0.00		0.07		0.00	0.00		0.00		0.12
SUM	9.31	1.39	5.28	3.36	3.30	4.31	5.62	3.18	4.74	1.68	3.09	6.22

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1979, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.22	0.00	0.06	0.00	0.00	0.10	0.00	0.00	0.21	0.06	0.01	0.00
2	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.35	1.30	0.00
3	0.00	0.00	0.01	0.39	0.00	0.50	0.00	0.35	0.78	0.00	0.10	0.00
4	0.00	0.00	0.30	0.83	0.00	0.37	0.00	0.00	0.01	0.03	0.00	0.00
5	0.00	0.00	2.11	0.01	0.00	0.00	0.10	0.00	3.01	0.65	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.20
7	0.21	0.95	0.00	0.00	0.00	0.21	0.10	0.00	0.31	0.00	0.00	0.05
8	0.11	0.00	0.21	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.27	0.10	0.00	0.12	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.48	0.36	0.00	0.00	0.62	0.53	0.00
11	0.00	0.00	0.38	0.00	0.00	0.20	0.00	0.28	0.00	0.02	0.61	0.00
12	0.48	0.00	0.00	0.04	0.04	0.00	0.10	0.13	0.00	0.00	0.01	0.00
13	0.33	0.00	0.00	0.70	0.35	0.00	0.10	0.10	0.20	0.07	0.01	0.24
14	0.11	0.00	0.00	0.02	2.17	0.00	0.00	0.00	0.55	0.00	0.02	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.15	1.48	0.00	0.00	0.00	0.00	0.00	0.04
17	0.00	0.00	0.00	0.00	0.00	2.04	0.00	0.00	0.00	0.01	0.00	0.00
18	0.00	0.63	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.04	0.00	0.00	0.00	0.05	1.77	0.00	0.00	0.00	0.00	0.00
20	1.20	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00
21	1.04	0.16	0.00	0.00	0.04	0.10	0.83	0.03	0.90	0.00	0.00	0.00
22	0.12	0.00	0.00	0.00	0.51	0.10	0.17	0.00	2.65	0.00	0.00	0.00
23	0.00	0.17	0.52	0.00	0.50	0.70	0.21	0.85	0.00	0.19	0.00	0.00
24	0.53	1.52	0.66	0.00	1.39	0.14	0.14	0.00	0.01	0.00	0.00	0.20
25	0.04	1.49	0.11	0.00	0.28	0.10	0.36	0.15	0.19	0.00	0.10	0.41
26	0.00	0.22	0.00	1.43	0.00	0.00	0.15	0.16	0.10	0.00	1.24	0.00
27	0.00	0.00	0.11	0.31	0.00	0.00	0.48	0.11	0.09	0.00	0.00	0.00
28	0.09	0.00	0.11	0.00	0.10	0.00	0.08	0.02	0.82	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.10	1.26	0.15	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.10	0.00	0.01	0.94	0.19	0.00	0.10
31	0.00		0.00		0.25		0.00	1.10		0.02		0.02
SUM	6.19	5.18	4.58	4.00	5.88	6.87	5.63	4.55	10.95	2.21	3.94	1.26

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1980, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.03	0.00	0.72	0.00	0.00
2	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00
4	0.10	0.00	0.00	0.06	0.00	0.00	0.22	0.00	0.87	0.00	0.80	0.00
5	0.08	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00
6	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.08	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.46	0.00	0.00	0.00
8	0.08	0.00	0.28	0.74	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00
9	0.02	0.44	0.13	0.15	0.00	0.00	0.26	1.32	0.00	0.00	0.00	0.00
10	0.02	0.32	0.00	0.00	0.00	0.00	0.92	0.00	0.01	0.00	0.00	0.57
11	0.78	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
12	0.05	0.00	0.02	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.11	0.00	0.15	0.27	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
14	1.56	0.00	0.00	1.19	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.25	0.00
16	0.00	0.04	0.00	0.00	0.00	0.16	0.00	1.50	0.00	0.00	0.02	0.03
17	0.11	0.00	0.95	0.00	0.00	0.66	0.00	0.16	0.00	0.00	0.53	0.00
18	1.11	0.00	0.22	0.00	1.31	0.12	1.87	0.00	0.18	0.00	0.17	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.29	0.40	0.00	0.00
20	0.00	0.00	0.96	0.00	1.53	0.00	0.00	0.00	0.19	0.00	0.06	0.00
21	0.00	0.00	1.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00
22	0.24	0.04	0.00	0.00	0.02	0.00	0.00	0.55	0.00	0.00	0.00	0.00
23	0.06	0.36	0.00	0.00	0.32	0.00	0.45	0.03	0.00	0.00	0.00	0.00
24	0.00	0.00	1.19	0.00	0.50	0.65	0.02	0.00	0.27	0.03	0.78	0.00
25	0.00	0.24	0.24	0.00	0.08	2.86	0.00	0.00	1.89	0.71	0.00	0.00
26	0.00	0.00	0.00	0.24	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
27	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.00
28	0.00	0.00	0.78	0.00	0.00	0.00	0.15	0.00	0.22	0.22	0.00	0.15
29	0.00	0.00	0.13	0.13	0.00	0.04	0.00	0.00	0.59	0.23	0.00	0.00
30	0.00		0.18	0.00	0.02	0.00	0.00	0.00	0.40	0.74	0.00	0.17
31	0.16		0.02		0.00		0.00	0.00		0.00		0.00
SUM	4.62	1.64	6.98	3.42	3.84	4.57	4.30	4.32	5.38	3.25	3.16	0.92

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1981, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.05	0.17	0.00	0.00	0.86
2	0.00	0.39	0.00	0.00	0.00	6.02	0.04	0.43	0.09	0.10	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.04	0.96	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.12	0.00	0.00	0.00	0.12	0.09	1.18	0.00	0.00	0.05
5	0.00	0.00	0.34	0.27	0.00	0.00	0.00	0.00	0.31	0.00	0.55	0.00
6	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.02	1.74	0.00	0.00	0.00
7	0.50	0.02	0.00	0.00	0.73	0.25	0.02	0.00	0.22	0.00	0.00	0.00
8	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.12	0.02	0.00	0.00	0.00
10	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	1.09	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.55	0.00	0.51	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.11	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.79
15	0.00	0.00	0.00	0.10	0.05	0.00	0.00	0.00	0.20	0.00	0.00	1.26
16	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.38	0.39	0.00	0.00	0.08
17	0.00	0.03	0.00	0.14	0.00	0.00	0.07	0.00	0.32	0.00	0.06	0.00
18	0.00	0.13	0.00	0.00	0.01	1.20	0.00	0.00	0.00	0.10	0.00	0.00
19	0.00	0.69	0.00	0.00	0.21	0.00	0.00	0.11	0.00	0.00	0.00	0.00
20	0.00	0.43	0.00	0.18	1.60	0.16	0.00	0.00	0.00	0.00	0.00	0.00
21	0.22	0.00	0.00	0.00	0.03	0.00	0.06	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.13	0.97	0.00	0.00	0.06	0.00	0.00	0.00	0.57	0.00	0.22
24	0.00	0.00	0.00	0.12	0.00	0.00	0.15	0.00	0.00	0.01	0.29	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	2.62	0.00	0.00	0.66	0.00	1.22
26	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	1.10	0.00	0.00
27	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	1.52	0.08	0.02
28	0.00	0.00	0.00	0.00	0.07	0.00	0.16	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.06	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
30	0.21		1.42	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.13	0.00
31	0.00		0.00		0.17		0.02	0.00		0.00		1.23
SUM	0.93	3.16	3.00	1.11	3.83	9.87	4.25	1.94	4.64	4.06	1.11	5.73

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1982, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.22	0.00	0.01	0.00	0.43	0.00	0.05	0.37	0.00	0.00	0.42
2	0.03	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
3	0.75	1.65	0.00	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11
4	1.44	0.02	0.00	0.00	0.00	0.26	0.23	0.00	0.00	0.02	1.68	0.00
5	0.00	0.08	0.00	0.02	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.06
6	0.00	0.03	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
7	0.00	0.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.01	0.45	0.20	0.00	0.00	0.00	0.00	0.20	0.00	0.00
9	0.00	0.37	0.00	0.12	0.00	0.00	0.39	0.12	0.00	0.06	0.00	0.00
10	0.00	0.11	0.00	0.00	0.00	1.19	0.00	0.00	0.00	0.02	0.00	0.00
11	0.00	0.11	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.23
12	0.00	0.02	0.00	0.00	0.00	0.08	0.04	0.06	0.00	0.02	0.02	1.60
13	0.35	0.29	0.06	0.00	0.00	1.50	0.00	0.00	0.01	1.41	1.02	0.00
14	0.27	0.02	0.00	0.00	0.00	0.00	0.58	0.00	0.08	0.02	0.00	0.00
15	0.00	0.00	0.30	0.37	0.00	0.00	0.00	0.00	0.16	0.00	0.02	0.11
16	0.00	0.71	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20
17	0.00	0.17	0.04	0.36	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.70	1.14	0.00	0.00	0.40	0.00	0.02	0.00
19	0.12	0.06	0.02	0.00	0.05	0.01	0.00	0.00	0.02	0.00	0.15	0.06
20	0.00	0.00	0.13	0.16	0.00	0.00	0.00	0.00	0.02	0.00	0.09	0.00
21	0.34	0.00	0.24	0.00	0.02	0.00	0.00	0.00	0.06	0.17	0.12	0.00
22	0.22	0.00	0.00	0.00	0.73	0.08	0.11	0.00	0.72	0.00	0.02	0.00
23	0.12	0.00	0.00	0.00	0.10	0.18	0.71	0.00	0.01	0.00	0.02	0.00
24	0.00	0.00	0.00	0.00	0.57	0.02	0.72	0.00	0.00	0.00	0.00	0.00
25	0.03	0.00	0.00	0.12	0.19	0.02	0.00	0.02	0.00	2.10	0.00	0.00
26	0.00	0.00	0.00	0.80	0.38	0.00	0.00	0.00	0.44	0.03	0.00	0.00
27	0.00	1.16	0.00	0.50	0.03	0.40	0.00	0.00	0.03	0.02	0.11	0.00
28	0.00	0.00	0.00	0.25	0.70	0.02	0.00	0.00	0.00	0.00	0.32	0.04
29	0.00	0.00	0.00	0.00	0.16	0.19	0.04	0.00	0.00	0.00	0.53	0.05
30	0.00		0.00	0.00	0.27	0.00	0.03	0.00	0.00	0.00	0.02	0.00
31	0.17		0.14		0.00		1.53	0.33		0.00		0.10
SUM	3.84	5.11	1.92	3.43	4.21	6.39	4.41	0.58	2.32	4.07	4.14	4.37

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1983, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.12	0.00	0.00	0.00	0.04	1.41	0.00	0.05	0.00	0.00
2	0.25	0.92	0.00	0.64	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00
3	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.82
4	0.00	0.00	0.00	0.00	0.61	0.45	0.00	0.07	0.00	0.00	0.10	1.26
5	0.00	0.00	0.00	0.42	0.00	0.00	0.02	0.00	0.23	0.00	0.00	0.00
6	0.00	0.31	0.92	0.18	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.72
7	0.00	0.00	0.00	0.90	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.20	0.26	0.14	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.19	0.08	0.00	0.00	0.00	0.00	0.47	0.00	0.00
10	0.00	0.10	0.62	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00
11	0.06	0.07	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.04	0.08
12	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.14	0.00	1.90
13	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.28	0.63	0.00	0.00
14	0.02	0.86	0.00	0.00	0.03	0.00	0.00	0.00	0.20	0.01	0.00	0.12
15	0.00	0.00	0.00	1.27	0.41	0.00	0.00	0.00	0.00	0.00	1.52	0.00
16	0.00	0.00	0.00	0.01	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
18	0.00	0.00	0.79	0.19	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.21	0.01	0.31	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.02	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.24	0.00
21	0.12	0.00	0.29	0.00	0.14	0.00	0.00	0.00	0.72	0.32	0.00	0.03
22	0.21	0.00	0.00	0.00	0.01	0.58	0.00	0.00	0.00	0.13	0.00	0.75
23	0.09	0.74	0.00	0.67	0.17	0.00	0.00	0.04	0.00	1.54	0.00	0.00
24	0.01	0.04	0.03	0.56	0.05	0.00	0.02	0.61	0.00	0.01	1.13	0.00
25	0.00	0.02	0.00	0.00	0.00	0.00	0.50	2.38	0.00	0.00	0.99	0.00
26	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	1.31	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.02
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.13	0.78
29	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.01
30	0.00		0.00	0.00	0.22	1.29	0.00	0.00	0.10	0.00	0.00	0.00
31	0.00		0.36		0.00		0.00	0.00		0.00		0.00
SUM	1.15	3.06	5.98	5.28	3.35	2.86	0.89	4.80	1.97	4.02	4.40	6.49

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1984, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00
2	0.00	0.00	0.86	0.00	0.08	0.00	0.00	0.19	0.00	0.00	0.00	0.00
3	0.00	0.13	0.00	0.16	1.58	0.00	0.00	0.00	0.00	0.00	0.00	0.50
4	0.00	0.11	0.00	0.58	0.15	0.00	0.00	0.00	0.00	0.00	0.66	0.00
5	0.03	0.04	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.82
6	0.00	0.36	0.20	0.02	0.12	0.00	0.35	0.00	0.00	0.00	0.00	0.05
7	0.00	0.00	0.16	0.00	1.25	0.00	0.07	0.00	0.00	0.00	0.00	0.05
8	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.02	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.42	0.01	0.00	0.00	0.50	0.00	0.00	0.00	0.00
10	1.26	0.00	0.00	1.99	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.06
11	0.52	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.21	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00
13	0.04	0.62	0.54	0.00	0.00	0.00	0.13	0.24	0.00	0.00	0.00	0.00
14	0.00	2.14	0.00	0.00	0.00	0.07	0.27	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
16	0.00	0.01	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.06	0.00	0.33	0.18	0.00	0.00	0.00	0.00	0.00
18	0.63	0.00	0.00	0.00	0.00	0.00	1.85	0.00	0.00	0.00	0.00	0.00
19	0.36	0.00	0.00	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.16	0.00
20	0.00	0.00	0.02	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.12
21	0.00	0.00	0.65	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
22	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.22
23	0.00	1.40	0.00	0.63	0.83	0.26	0.00	0.00	0.00	0.00	0.00	0.00
24	0.63	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.07	0.00	0.02
25	0.01	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	1.17	0.00	0.00	1.05	0.13	0.01	0.00	0.00	0.00	0.00	0.00
28	0.00	0.10	1.42	0.00	0.95	0.00	1.77	0.05	0.00	0.04	1.12	0.00
29	0.00	0.00	0.79	0.94	1.56	0.33	0.69	0.00	0.00	0.28	0.00	0.00
30	0.09		0.00	0.11	0.05	0.43	0.05	0.08	0.93	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.08		0.00		0.00
SUM	3.57	6.08	4.91	5.41	7.83	1.56	5.68	1.46	0.93	2.15	2.41	1.85

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1985, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	1.60	0.00	0.01	0.00	0.00	0.73	0.00	0.00	0.00	0.15	0.21
2	0.23	0.39	0.00	0.00	0.32	0.30	0.12	0.15	0.00	1.78	0.60	0.00
3	1.00	0.01	0.00	0.00	0.07	0.00	0.09	0.00	0.00	0.50	0.26	0.00
4	0.73	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.31	0.00
5	0.00	0.42	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.10	0.00
6	0.01	0.08	0.00	0.35	0.00	0.58	0.03	0.03	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	1.58	0.02	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.19	0.00	0.51	0.07	0.00	0.00	0.00	0.00
11	0.00	0.08	0.00	0.00	0.10	0.00	0.44	0.00	0.00	0.00	0.00	0.02
12	0.00	1.28	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.36
13	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.56
14	0.00	0.00	0.00	0.00	0.00	0.00	1.69	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.08	3.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00
16	0.00	0.00	0.00	0.19	3.24	0.04	0.00	0.52	0.00	0.08	0.24	0.00
17	0.22	0.00	0.01	0.11	0.81	0.00	0.00	2.10	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
19	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
20	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.13	1.20	0.00
22	0.00	0.00	0.88	0.00	0.00	0.00	0.01	0.00	0.00	0.05	0.90	0.00
23	0.00	0.00	0.14	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.10	0.68	0.00	0.00	1.08	0.41	0.00	0.00	0.00	0.00
25	0.00	0.28	0.02	0.01	0.00	0.05	0.36	0.00	0.05	0.00	0.00	0.00
26	0.00	0.98	0.00	0.00	0.00	0.00	0.32	0.17	0.00	0.00	0.00	0.00
27	0.00	0.01	0.00	0.00	0.00	0.00	0.20	0.28	0.00	0.00	0.00	0.00
28	0.22	0.00	0.00	0.06	0.01	0.00	0.20	0.05	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.05	0.10	0.00	0.00	0.00	0.61	0.00
30	0.00		0.00	0.00	0.00	0.77	0.00	0.57	0.00	0.07	1.30	0.00
31	0.35		0.09		0.00		0.00	0.00		0.16		0.38
SUM	2.79	5.18	1.24	1.49	7.79	3.97	7.76	4.55	0.05	3.02	5.69	1.53

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1986, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.07	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.62	0.00	0.82	0.07
2	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.06	0.00	0.00	0.58
3	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.45	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.30	0.00	0.00	0.00
5	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
6	0.00	0.07	0.00	0.14	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00
7	0.00	0.12	0.00	0.00	0.02	0.00	0.00	0.30	0.00	0.00	0.98	0.00
8	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.15
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.36
10	0.00	0.08	0.06	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.01
11	0.00	0.21	0.00	0.00	0.00	0.00	0.08	1.55	0.00	0.00	0.79	0.71
12	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.95	0.00	0.00	0.03	0.00
13	0.00	0.00	0.32	0.00	0.06	0.00	0.00	0.56	0.00	0.56	0.00	0.00
14	0.00	0.08	0.87	0.00	0.01	0.00	0.22	0.00	0.00	1.04	0.00	0.00
15	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00
16	0.00	0.00	0.00	0.00	0.02	0.00	0.33	0.00	0.00	0.00	0.00	0.00
17	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06
19	0.43	0.26	0.64	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00
20	0.00	0.00	0.14	0.00	0.34	0.00	0.00	0.42	0.03	0.00	0.53	0.00
21	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
24	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	2.30
25	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.54	0.01	0.00
26	0.18	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	1.04	0.53	0.00
27	0.00	0.05	0.00	0.00	0.17	0.00	0.22	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
31	0.00		0.00		0.00		0.00	0.00		0.00		0.00
SUM	0.77	1.34	2.40	0.43	0.87	0.80	1.67	5.48	1.46	3.33	4.46	4.28

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1987, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.77	0.00	1.63	0.00	0.00	0.05	0.00	0.08	0.00	0.01	0.00	0.00
2	0.06	0.26	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.20	0.00	0.00	0.04	0.00	0.51	0.00	0.00	0.00
4	0.00	0.00	0.00	0.18	0.11	0.50	0.00	0.00	0.00	0.00	0.00	0.03
5	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.06	1.20	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.83	0.30	0.01	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51	1.97	0.00	0.00	0.00
8	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.34	0.01	0.00	0.00
9	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.07	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.13	0.00	1.16	1.23
11	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	1.84	0.00	0.15	0.12
12	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.32	0.02	0.00	0.00
13	0.00	0.00	0.00	0.00	0.36	0.16	0.00	0.00	0.01	0.00	0.00	0.00
14	0.00	0.02	0.00	0.08	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00
15	0.00	0.05	0.00	0.91	0.12	0.00	0.00	0.17	0.00	0.00	0.00	1.04
16	0.00	0.50	0.02	0.58	0.12	0.00	0.07	0.03	0.00	0.00	0.00	0.01
17	0.13	0.11	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00
18	0.89	0.01	0.00	0.23	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
19	0.71	0.00	0.93	0.00	0.22	0.01	0.00	0.01	0.09	0.00	0.00	0.00
20	0.01	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.01	0.00	0.18	0.02
21	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.06	0.00	0.14
22	1.16	0.35	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.09
23	0.00	0.50	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.02
24	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
25	0.12	0.00	0.47	0.54	0.00	3.88	0.02	0.00	0.00	0.00	0.00	0.45
26	0.00	0.00	0.00	0.04	0.00	1.90	0.00	0.00	0.00	0.00	0.03	0.00
27	0.00	1.30	0.25	0.00	0.02	0.13	0.00	0.00	0.00	0.98	2.19	0.32
28	0.00	1.16	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.46
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.41	0.00
30	0.00		0.80	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.01	0.02
31	0.00		0.47		0.00		0.00	0.02		0.00		0.01
SUM	3.92	4.26	5.47	3.83	1.68	7.44	2.38	2.72	7.19	1.09	4.51	3.97

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(Continued from previous page)

Year: 1988, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.18	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.00
2	0.15	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
3	0.20	0.05	0.02	0.01	0.00	0.03	0.00	0.00	0.30	1.01	0.00	0.00
4	0.19	0.67	0.01	0.20	0.57	0.00	0.00	0.19	2.17	0.33	0.00	0.00
5	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.08	0.45	0.00	0.59	0.00
6	0.00	0.00	0.00	0.09	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00
7	0.41	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.28	0.00	0.00	2.14	0.34	0.00	1.42	0.00	0.00	0.23
10	0.00	0.00	1.02	0.00	0.42	0.03	0.00	0.47	0.08	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.11	0.00	0.00	0.00	0.00
12	0.00	0.01	0.00	0.82	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00
13	0.10	0.00	0.32	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00
15	0.00	0.19	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
17	0.08	0.00	0.00	0.00	0.80	0.00	0.00	0.00	1.26	0.00	0.58	0.00
18	0.05	0.00	0.28	0.33	0.00	0.05	0.00	0.00	0.09	0.00	0.00	0.00
19	0.05	0.37	0.00	0.81	0.14	0.00	0.00	0.00	0.01	0.01	0.01	0.00
20	0.40	0.02	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.14	0.00
21	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.37	0.00	0.04
22	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.52	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.15	0.13
24	0.00	0.00	0.00	0.06	0.09	0.00	0.02	0.05	0.81	0.00	0.03	0.24
25	0.24	0.00	0.30	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.01
26	0.00	0.00	0.52	0.00	0.00	0.11	0.08	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.01	0.00	0.00	0.00	0.29	0.00	0.00	0.00	1.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.80	0.40
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00
30	0.00		0.00	0.00	0.00	0.05	0.00	0.82	0.00	0.00	0.00	0.07
31	0.00		0.00		0.00		0.00	0.00		0.30		0.53
SUM	2.08	1.43	2.76	2.36	2.22	2.42	3.87	3.77	6.59	3.02	3.84	1.65

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1989, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.70	0.00	0.00	0.00	0.52	0.00	0.00	0.15	0.00	2.61	0.00	0.00
2	0.00	0.00	0.00	0.00	1.02	0.20	0.00	0.25	0.00	0.20	0.03	0.00
3	0.00	0.00	0.41	0.19	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.01	0.00	0.00	0.02	2.60	0.00	0.00	0.00	0.00	0.00
5	0.00	0.45	0.25	0.55	0.35	0.00	0.55	0.00	0.13	0.00	0.00	0.00
6	0.13	0.07	0.21	0.02	1.04	0.14	0.29	0.01	0.03	0.00	0.44	0.00
7	0.02	0.18	0.00	0.72	0.00	0.00	0.10	0.00	0.06	0.00	0.01	0.00
8	0.13	0.00	0.00	0.35	0.00	0.22	0.00	0.00	0.00	0.00	0.25	1.57
9	0.24	0.00	0.00	0.00	0.25	1.58	0.00	0.00	0.00	0.00	0.02	0.20
10	0.20	0.00	0.00	0.00	0.07	0.02	0.00	0.00	0.08	0.00	0.00	0.00
11	0.07	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.31	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	1.01
13	0.03	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.40
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
15	0.11	0.00	0.31	0.60	0.32	0.35	0.00	0.00	0.00	0.00	0.34	0.00
16	0.00	0.07	0.35	0.00	0.00	0.82	0.42	0.00	1.50	0.00	0.70	0.00
17	0.00	0.94	0.00	0.00	0.00	0.18	2.48	0.18	0.00	0.24	0.00	0.00
18	0.00	0.59	0.45	0.00	0.00	0.00	0.00	0.02	0.00	1.20	0.00	0.00
19	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.50	0.00	1.50	0.00	0.00
20	0.00	0.13	0.18	0.00	0.00	0.09	0.38	0.00	0.03	0.00	0.00	0.00
21	0.00	0.83	0.20	0.00	0.00	0.51	0.01	0.00	0.25	0.00	0.00	0.00
22	0.00	0.10	0.25	0.00	0.08	0.58	0.05	0.00	2.88	0.00	0.57	0.00
23	0.00	0.11	1.02	0.00	1.27	0.00	0.00	0.00	0.03	0.00	0.54	0.00
24	0.00	0.06	0.67	0.00	0.00	0.18	0.00	0.20	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.37	0.00	0.00	0.00
27	0.00	1.10	0.00	0.44	0.01	0.00	0.67	1.13	0.00	0.00	0.00	0.00
28	0.00	1.02	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.04	0.00	0.00	0.00
30	0.00		0.12	0.43	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.02
31	0.00		0.07		0.00		0.05	0.00		0.00		0.78
SUM	1.94	5.71	4.50	3.36	4.93	5.06	7.60	2.46	6.99	5.75	3.04	3.98

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1990, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.31	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.13	0.00	0.00
2	0.00	0.00	0.21	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.66	0.05	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.71
4	0.38	1.25	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.23	0.00	0.28
5	0.01	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.47	0.00	0.00	0.00	0.00	0.00	0.00	2.77	0.00	0.00	0.04	0.00
7	0.06	0.02	0.00	0.43	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.09
8	0.82	0.00	0.01	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.05
9	0.00	0.06	0.12	0.00	0.26	0.02	0.00	0.00	0.00	0.00	0.55	0.00
10	0.00	1.51	0.00	0.02	1.13	0.35	0.00	0.00	0.00	0.92	1.26	0.00
11	0.00	0.02	0.00	0.18	0.00	0.00	0.00	0.00	0.00	2.78	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.16	1.21	0.00	0.00
13	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	1.81	0.00	0.03
14	0.00	0.00	0.00	0.00	0.00	0.00	1.55	0.35	0.01	0.00	0.00	0.02
15	0.00	0.00	0.00	1.05	0.00	0.60	0.31	0.00	0.00	0.00	0.00	0.00
16	0.00	1.56	0.03	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.04
18	0.07	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00
19	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.46
20	0.12	0.00	0.10	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.17
21	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
22	0.00	0.79	0.00	0.02	1.44	0.75	0.00	0.04	0.02	2.80	0.00	0.00
23	0.00	0.02	0.00	0.00	0.00	0.00	0.12	0.59	0.00	1.35	0.07	0.00
24	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
25	1.17	0.00	0.00	0.00	0.01	0.00	0.00	0.18	0.00	0.85	0.00	0.00
26	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.20
28	0.00	0.00	0.00	0.35	1.17	0.00	0.00	0.00	0.00	0.00	0.23	0.00
29	0.36	0.00	0.66	0.34	0.76	0.00	0.00	0.00	0.00	0.00	0.28	0.02
30	0.00		0.04	0.02	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.56		0.00		0.00	0.00		0.00		0.26
SUM	4.90	5.95	4.85	2.48	8.38	1.98	2.60	4.04	0.19	12.64	2.43	2.93

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1991, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.51
2	0.00	0.00	0.56	0.00	0.00	0.83	0.00	0.26	0.00	0.00	0.00	0.40
3	0.22	0.00	1.38	0.00	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.71
4	0.07	0.00	0.37	0.00	0.00	0.02	0.97	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.33	0.42	0.00	0.12	0.00	0.03	0.57	0.00	0.00
6	0.00	0.28	0.02	0.00	0.17	0.00	0.00	0.00	0.20	0.00	0.00	0.00
7	0.73	0.06	0.00	0.00	0.00	0.00	0.00	0.08	0.07	0.00	0.00	0.00
8	0.21	0.00	0.50	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.04	0.00
9	0.00	0.00	0.00	0.24	0.02	0.00	0.00	1.29	0.00	0.00	0.02	0.02
10	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.16
11	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
12	0.10	0.00	0.02	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00
13	0.00	0.14	0.18	0.39	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
14	0.00	0.30	0.00	0.31	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.11
15	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
16	0.92	0.00	0.00	0.18	0.00	0.61	0.00	0.00	0.00	0.03	0.00	0.00
17	0.00	0.00	0.00	0.00	0.31	0.51	1.34	0.00	0.00	0.00	0.00	0.00
18	0.00	0.86	0.68	0.00	0.00	0.05	0.59	0.00	0.00	0.00	0.00	0.00
19	0.00	0.03	0.00	1.02	2.87	0.46	0.00	0.00	1.07	0.00	0.06	0.00
20	0.63	0.13	0.00	0.02	0.37	0.00	0.03	0.08	0.36	0.00	0.01	0.00
21	0.00	0.00	0.00	0.60	0.11	1.16	0.00	0.00	0.00	0.00	0.03	0.00
22	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.21	0.00
23	0.00	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
25	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.06	0.45	0.00	0.00	0.00
26	0.00	0.37	0.00	0.02	0.00	0.00	1.02	0.02	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
28	0.00	0.00	0.03	0.15	0.21	0.00	0.28	0.49	0.00	0.00	0.00	1.00
29	0.00	0.00	3.65	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.62
30	0.25		0.08	1.54	0.03	0.00	0.02	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.94		0.00		0.00
SUM	4.67	2.27	7.48	5.58	4.51	3.77	5.11	5.09	2.22	0.60	1.79	3.76

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1992, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.99	0.00
3	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.09	0.00
4	0.31	0.00	0.00	0.03	0.00	1.78	0.47	0.00	0.00	2.00	1.27	0.00
5	0.00	0.00	0.00	0.00	0.09	0.02	0.00	0.00	0.59	0.43	0.20	0.00
6	0.00	0.00	1.00	0.00	0.21	0.00	0.01	0.00	0.25	0.00	0.00	0.00
7	0.00	0.00	0.35	0.01	0.60	0.00	0.00	0.00	0.01	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.70	0.18	0.00	0.00	0.00	0.08	0.00	0.00
9	0.04	0.00	0.00	0.00	0.20	1.55	0.00	0.00	0.00	0.65	0.00	0.00
10	0.00	0.00	0.25	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.80
11	0.00	0.00	0.20	0.00	0.00	1.00	0.00	0.00	0.50	0.06	0.00	0.00
12	0.00	0.00	0.00	0.01	0.00	0.02	0.00	0.05	0.00	0.00	1.42	0.00
13	0.01	0.10	0.00	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00
14	0.07	0.01	0.00	0.00	0.00	0.12	0.00	0.11	0.00	0.00	0.00	0.00
15	0.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.48
17	0.00	0.07	0.00	0.00	0.00	0.07	0.89	0.07	0.00	0.00	0.00	0.83
18	0.00	0.13	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
19	0.00	0.08	0.70	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
21	0.00	0.00	0.00	3.73	0.00	0.01	0.15	0.02	0.00	0.00	0.44	0.04
22	0.00	0.00	0.05	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.08
23	0.99	0.70	0.11	0.00	0.00	0.00	0.35	0.00	1.65	0.00	0.25	0.09
24	0.03	0.06	0.00	0.00	0.00	0.00	1.62	0.00	0.00	0.00	0.14	0.00
25	0.00	0.81	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00
26	0.00	0.25	0.07	0.00	0.26	0.00	0.01	0.00	0.00	0.00	0.82	0.00
27	0.02	0.00	0.00	0.00	0.05	0.56	0.00	0.00	0.90	0.00	0.00	0.05
28	0.05	0.00	0.00	0.04	0.03	0.00	0.20	0.58	1.13	0.11	0.00	0.36
29	0.02	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.04	0.00	0.00	0.00
30	0.00		0.02	0.00	0.48	0.22	0.00	0.00	0.00	0.05	0.00	0.00
31	0.00		0.00		0.01		0.32	0.00		0.95		0.00
SUM	2.34	3.35	2.77	4.27	3.36	5.73	4.36	4.03	5.09	4.33	6.18	3.34

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1993, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.46	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.23	0.00	0.00	0.00
3	0.00	0.00	0.30	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	1.72	0.00	1.40	0.00	0.00	0.03	0.41	0.00	0.07	0.04
5	1.65	0.00	0.00	0.73	0.01	0.00	0.14	0.00	0.00	0.00	0.38	1.55
6	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.60	0.00	0.00	0.05	0.00
7	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
8	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00
9	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.02	0.00	0.00	0.91	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.34
11	0.50	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.05	0.00	0.00
12	0.23	1.97	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
13	0.25	0.00	2.20	0.00	0.04	0.57	0.22	0.14	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.12
15	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.12	0.35
16	0.40	0.65	0.00	0.08	0.00	0.00	0.00	0.17	0.16	0.00	0.00	0.00
17	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.19	0.31	0.08	0.05	0.00
18	0.00	0.00	0.00	0.00	0.04	0.00	0.43	0.00	0.00	0.00	0.00	0.14
19	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.02	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.22	0.11	0.00	0.02	0.32
21	1.80	0.59	0.00	0.33	0.02	0.10	0.00	0.01	0.07	0.03	0.00	0.74
22	0.01	0.16	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
24	0.39	0.00	1.76	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
26	0.00	0.40	0.00	0.50	0.03	0.00	0.01	0.03	0.00	0.00	0.00	0.00
27	0.00	0.00	0.98	0.00	0.00	0.00	0.49	0.03	0.06	0.00	2.02	0.00
28	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.14
29	0.00	0.00	0.03	0.00	0.00	1.77	0.00	0.00	0.00	0.00	0.00	0.21
30	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00
31	0.00		0.09		0.08		0.00	0.00		0.00		0.00
SUM	7.05	3.79	7.94	3.40	1.91	2.46	3.03	1.60	1.35	1.35	2.77	4.01

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1994, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.41	0.00	0.02	0.00	0.00	0.01	0.25	0.00	0.00	0.00
2	0.06	0.00	0.42	0.00	0.00	0.00	0.00	0.08	1.03	0.00	0.00	0.00
3	0.04	0.00	0.09	0.00	0.44	0.00	0.01	0.19	0.12	0.04	0.00	0.00
4	0.92	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.61
5	0.00	0.26	0.00	0.00	0.00	0.40	0.13	0.06	0.00	0.00	0.00	0.13
6	0.00	0.00	0.00	0.30	0.00	0.18	0.07	0.00	0.00	0.00	0.08	0.00
7	0.02	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
8	0.72	0.00	0.00	0.00	0.08	0.55	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00
10	0.00	0.40	0.78	0.00	0.00	1.22	0.63	0.00	0.00	0.00	0.55	0.07
11	0.16	0.97	0.00	0.31	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.34
12	0.09	0.02	0.00	0.01	0.00	0.00	0.01	0.05	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.28	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.26	0.00	0.04
15	0.00	0.00	0.00	0.10	0.16	0.00	0.08	0.91	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.58	0.63	0.00	0.03	0.26	0.00	0.00	0.00	0.00
17	0.88	0.00	0.00	0.00	0.00	0.38	0.00	3.35	0.26	0.00	0.00	0.03
18	0.03	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.02	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.03	0.00	0.00	0.00	0.00
21	0.00	0.03	0.03	0.00	0.00	0.00	0.37	0.37	0.00	0.00	1.03	0.00
22	0.00	0.00	0.03	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.00
23	0.00	0.76	0.00	0.00	0.00	0.00	0.14	0.01	0.00	1.57	0.00	0.06
24	0.00	0.29	0.00	0.00	0.00	0.06	0.00	0.00	0.30	0.00	0.00	0.00
25	0.12	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00
26	0.16	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.18	0.07	0.00	0.00
27	0.43	0.00	2.34	0.36	0.42	1.22	0.27	0.27	0.00	0.00	0.90	0.00
28	0.83	0.00	1.77	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.16	0.00
29	0.00	0.00	0.76	0.00	0.00	0.39	0.29	0.00	0.00	0.00	0.34	0.00
30	0.03		0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
31	0.01		0.02		0.00		0.00	0.00		0.27		0.41
SUM	4.50	2.77	6.91	1.94	2.63	4.74	5.79	5.89	2.44	2.61	3.06	1.69

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1995, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.49	0.00	0.00	0.34	0.02	0.00	0.00	0.00	0.05	0.00
2	0.00	0.03	0.00	0.00	0.94	1.02	0.04	0.00	0.00	0.00	0.51	0.00
3	0.00	0.00	0.07	0.00	0.00	0.68	0.41	0.04	0.00	0.00	0.11	0.00
4	0.00	0.10	0.22	0.00	0.02	0.00	0.15	0.00	0.00	2.59	0.02	0.01
5	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.31	0.00	0.37	0.00	0.09
6	0.13	0.00	0.23	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00
7	1.45	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	1.29	0.29
8	0.00	0.02	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
10	0.00	0.02	0.00	0.00	0.36	0.28	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.58	0.03	0.00	0.00	0.64	0.00	0.98	0.00
12	0.00	0.00	0.00	0.05	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00
13	0.03	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.05	0.00	0.01
14	1.08	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	1.82	0.07	0.00
15	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	1.24	0.00	0.00	0.00	0.02	0.52	0.00	2.13	0.00	0.00	0.01
17	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.00
18	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24
19	0.00	0.00	0.00	0.00	0.30	0.63	0.00	0.26	0.00	0.00	0.00	0.40
20	0.66	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.08
21	0.00	0.01	0.24	0.02	0.00	1.46	0.03	0.00	0.00	0.80	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	1.51	0.00	0.00	0.25	0.00	0.00	0.00
23	0.03	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00
24	0.00	0.00	0.00	0.17	0.00	0.23	0.06	0.00	0.00	0.00	0.18	0.00
25	0.00	0.00	0.00	0.00	0.02	1.08	0.00	0.00	0.09	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.02	0.03	1.35	0.40	0.02	0.00	0.00	0.00
27	0.00	0.21	0.07	0.00	0.00	0.67	0.00	4.53	0.00	0.47	0.00	0.00
28	0.47	0.81	0.00	0.00	0.09	0.00	0.13	0.05	0.00	0.72	0.00	0.00
29	0.02	0.00	0.00	0.00	0.01	0.35	0.00	0.00	0.00	0.00	0.31	0.00
30	0.07		0.00	0.00	0.05	0.08	0.00	0.00	0.00	0.00	0.00	0.00
31	0.03		0.00		0.00		0.00	0.00		0.30		0.01
SUM	4.94	4.15	2.58	0.44	3.60	9.22	3.10	5.59	3.63	7.12	3.52	1.80

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(Continued from previous page)

Year: 1996, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.07	0.00	0.00	0.24	0.00	0.00	0.41	0.38	0.00	1.25	0.02	1.92
2	0.37	1.87	0.06	0.00	0.00	0.00	0.00	0.00	0.33	0.02	0.51	0.26
3	0.02	0.36	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.55	0.25	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39
6	0.25	0.00	0.68	0.04	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.07
7	0.14	0.00	0.67	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.10	0.37
8	0.00	0.10	0.06	0.04	0.02	0.30	0.47	0.00	0.00	0.60	1.16	0.00
9	0.00	0.08	0.06	0.49	0.00	1.07	0.00	0.77	0.00	0.11	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.28	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.12	0.02	0.06	0.00	1.11	0.00	0.00	0.00
12	0.38	0.00	0.00	0.00	0.00	0.00	0.05	2.06	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.65	0.56	0.00	0.00	0.93
14	0.00	0.00	0.00	0.08	0.11	0.00	0.00	0.02	0.00	0.00	0.00	0.00
15	0.00	0.00	0.05	0.27	0.13	0.00	0.43	0.00	0.00	0.00	0.00	0.00
16	0.00	0.07	0.21	0.15	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00
17	0.02	0.00	0.39	0.00	0.00	0.00	0.00	0.01	0.09	0.00	0.00	0.21
18	0.03	0.00	0.10	0.00	0.00	0.66	0.39	0.00	0.00	0.02	0.37	0.11
19	0.71	0.00	0.90	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.03	0.44
20	0.00	0.56	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.36	0.00
22	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00
23	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.60	0.00	0.00	0.00	0.00	0.01	0.03	0.90	0.00	0.00	0.00	0.28
25	0.00	0.00	0.13	0.00	0.05	0.02	0.00	0.06	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.49	0.11	0.00	0.48	0.23	0.09	0.00	1.11	0.00
27	1.30	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.00	0.02	0.00	0.07
28	0.00	0.04	0.82	0.00	0.57	0.00	0.01	0.01	0.03	0.00	0.00	0.00
29	0.01	0.00	0.07	0.13	0.00	0.00	0.05	0.00	0.50	0.00	0.00	0.16
30	0.04		0.00	1.07	0.00	0.00	0.00	0.00	0.01	0.00	0.46	0.00
31	0.14		0.05		0.00		0.00	0.00		0.00		0.00
SUM	4.08	3.10	4.25	3.46	1.47	4.17	2.38	7.21	6.01	2.02	4.12	5.21

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1997, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.24	0.00	0.12	0.18	0.68	0.00	0.00	0.00	0.39	0.30
2	0.00	0.00	0.02	0.00	0.00	0.12	0.11	0.00	0.00	0.00	0.29	0.00
3	0.00	0.00	0.21	0.00	0.72	0.03	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32
5	0.62	0.08	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.17	1.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00
8	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	1.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.08
10	0.00	0.17	0.00	0.00	0.00	0.00	0.16	0.00	0.86	0.00	0.00	0.31
11	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00
12	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
13	0.00	0.25	0.01	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.47	0.00
14	0.00	0.66	1.03	0.00	0.00	0.42	0.00	1.33	0.00	0.02	0.24	0.00
15	0.00	0.79	0.00	0.00	0.00	0.46	0.00	0.00	0.05	0.13	0.00	0.00
16	0.66	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.13	0.01	0.00	0.00
19	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	1.21	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00
21	0.00	0.15	0.00	0.01	0.00	0.00	0.60	0.00	0.00	0.00	0.21	0.00
22	0.11	0.06	0.00	0.64	0.00	0.16	0.02	0.00	0.00	0.03	0.52	0.53
23	0.05	0.00	0.00	1.80	0.00	0.00	2.70	0.00	0.00	0.03	0.00	0.00
24	0.44	0.00	0.00	0.00	0.00	0.00	0.29	0.00	1.66	0.08	0.00	0.83
25	0.14	0.00	0.05	0.00	0.08	0.00	0.26	0.84	0.07	0.26	0.00	0.14
26	0.00	0.11	0.20	0.00	0.02	0.00	0.00	0.00	0.00	1.48	0.00	0.00
27	0.00	0.04	0.00	0.59	0.23	0.21	0.04	0.00	0.00	0.17	0.00	0.84
28	0.43	1.24	0.11	0.48	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00
29	0.00	0.00	0.10	2.76	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.42
30	0.00		0.00	0.00	0.08	0.00	0.79	0.00	0.00	0.00	0.20	0.00
31	0.00		0.08		0.00		0.00	0.00		0.00		0.00
SUM	3.59	4.50	3.49	8.55	1.32	2.89	6.44	2.59	3.81	3.42	2.43	3.77

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 1998, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.12	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.90	--	0.05	0.45	0.00	0.00	0.00	0.58	0.00	0.25	0.00
4	0.00	0.58	0.00	0.52	0.01	0.02	0.00	0.00	0.96	0.09	0.00	0.00
5	0.00	0.13	0.00	0.00	0.15	0.28	0.12	0.00	0.00	0.01	0.00	0.00
6	0.12	0.00	0.00	0.00	0.15	0.94	0.00	0.00	0.00	0.01	0.00	0.00
7	0.45	0.00	0.02	0.00	0.72	0.00	0.00	0.00	0.00	0.41	0.00	0.00
8	0.74	0.01	1.65	0.00	0.05	0.00	0.02	0.00	0.90	1.29	0.00	0.00
9	0.00	0.00	0.92	1.06	0.00	0.06	0.02	0.13	0.00	0.00	0.01	0.74
10	0.00	0.00	0.00	0.00	0.11	0.70	0.00	0.08	0.00	0.00	0.02	0.00
11	0.00	0.24	0.00	0.00	0.35	0.00	0.00	0.01	0.00	0.00	0.25	0.00
12	0.00	0.33	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00
13	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46
14	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00
15	1.40	0.00	0.00	0.00	0.00	0.30	0.00	0.57	0.00	0.00	0.30	0.00
16	0.26	0.48	0.11	0.61	0.00	0.01	0.00	0.43	0.00	0.00	0.47	0.23
17	0.00	0.68	0.02	1.45	0.00	0.00	0.05	0.18	0.00	0.00	0.02	0.01
18	0.00	0.03	0.04	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.46	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
20	0.00	0.09	0.20	0.05	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.04
21	0.00	0.00	0.09	0.00	0.00	0.00	0.14	0.00	0.15	0.00	0.00	0.00
22	0.03	0.00	0.00	0.40	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.01
23	0.76	0.62	0.00	0.13	0.00	0.54	0.11	0.00	0.00	0.00	0.00	0.17
24	0.09	0.00	0.00	0.00	0.00	0.56	0.10	0.00	0.00	0.00	0.00	1.23
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02
26	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.11	0.00
27	1.75	0.40	0.00	0.21	0.71	0.00	0.14	0.00	0.00	0.00	0.00	0.00
28	0.43	0.01	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.03
30	0.00		0.00	0.36	0.79	0.00	0.00	0.00	0.10	0.00	0.00	--
31	0.00		0.00		0.02		0.20	0.00		0.00		0.00
SUM	6.54	4.50	3.05	6.63	4.07	3.41	2.41	1.40	2.76	1.83	1.72	4.02

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 1999, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.44	0.00	1.24	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00
2	0.18	0.28	0.00	0.00	0.00	0.00	1.68	0.00	0.00	0.00	0.80	0.00
3	1.22	0.00	0.80	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00
5	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	1.32	0.00	0.00	0.00
6	0.00	0.00	0.03	0.00	0.02	0.00	0.00	0.00	0.10	0.00	0.00	0.65
7	0.00	0.00	0.00	0.00	0.09	0.00	1.29	0.00	0.00	0.00	0.00	0.00
8	0.17	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
9	0.02	0.00	0.19	0.00	0.00	0.00	0.00	0.46	0.98	0.00	0.00	0.00
10	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.56	0.00	0.20
11	0.00	0.00	0.00	0.04	0.00	0.04	0.07	0.00	0.00	0.97	0.05	0.00
12	0.00	0.12	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.10	0.00	0.02	0.00	0.09	0.00	0.00	0.17	0.00	0.12
14	0.00	0.00	0.45	0.00	0.33	0.00	0.02	0.06	0.00	0.00	0.00	0.57
15	0.34	0.00	0.10	0.47	0.00	0.15	0.00	0.41	0.06	0.00	0.00	0.00
16	0.00	0.00	0.00	0.02	0.00	0.59	0.00	0.00	0.10	0.00	0.00	0.00
17	0.04	0.33	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
18	0.51	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.67	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.84	0.00	0.20
21	0.00	0.00	0.53	0.00	0.00	0.17	0.00	0.43	0.00	0.04	0.04	0.57
22	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.04	0.04
23	0.68	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
24	0.70	0.05	0.00	0.00	0.00	0.00	0.09	0.34	0.00	0.00	0.00	0.03
25	0.00	0.02	0.02	0.00	0.00	0.74	0.02	0.25	0.00	0.00	0.09	0.00
26	0.00	0.00	0.00	0.01	0.07	0.12	0.00	0.75	0.00	0.00	0.61	0.00
27	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.20	0.58	0.00	0.00	0.00
28	0.00	0.13	0.00	1.14	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00
29	0.00	0.00	0.00	0.49	0.00	0.17	0.01	0.00	0.84	0.00	0.00	0.00
30	0.01		0.00	1.38	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.00		0.10		0.00
SUM	3.87	2.68	2.23	5.22	1.65	2.30	4.18	3.49	4.54	3.16	1.64	2.38

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina

(*Continued from previous page*)

Year: 2000, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.46	0.00	0.00	0.00
2	0.00	0.00	0.00	0.11	0.05	0.00	0.00	0.00	0.75	0.00	0.00	0.00
3	0.00	0.00	0.00	0.89	0.72	0.00	0.00	0.05	0.28	0.00	0.00	0.00
4	0.70	0.00	0.01	0.10	0.00	0.04	0.09	0.31	0.51	0.00	0.00	0.00
5	0.01	0.00	0.00	0.00	0.00	0.67	0.01	0.00	0.08	0.00	0.01	0.00
6	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	1.90	0.00	0.00	0.00	0.03	0.00
8	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00
10	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.07	0.00
11	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.92	0.11	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
13	0.00	0.05	0.00	0.28	0.00	0.00	0.01	0.22	0.00	0.00	0.00	0.00
14	0.00	0.59	0.00	0.01	0.00	0.00	0.05	0.00	0.00	0.00	0.27	0.21
15	0.00	0.00	0.00	0.82	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.02
16	0.00	0.00	0.77	0.12	0.00	0.90	0.00	0.00	0.00	0.00	0.03	0.62
17	0.00	0.00	0.26	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.50
18	0.47	0.18	0.00	0.73	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
19	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.79	0.00	0.24	0.12
20	0.34	0.00	1.68	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.11	0.08	0.45	0.09	0.00	0.00	0.10	0.00	0.00	0.00
22	0.09	0.00	0.00	0.00	0.27	0.00	0.46	0.00	0.01	0.00	0.00	0.00
23	0.29	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.83	0.00	0.00	0.00
24	0.00	0.00	0.00	0.07	0.13	0.00	0.26	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.08	0.95	0.34	0.00	0.08	0.00	0.06	0.00	0.43	0.00
26	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.36	0.07	0.00	0.04	0.00
27	0.00	0.41	0.03	0.02	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.03	0.00	0.95	0.08	0.19	0.00	0.05	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.05	0.24	0.10	0.00	0.00	0.00	0.00	0.03	0.00
30	0.70		0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00		0.00		0.00		0.00	0.33		0.00		0.00
SUM	4.19	2.18	3.34	5.62	2.28	2.15	3.83	1.94	4.97	0.00	2.32	1.47

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 2001, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.00	0.00	0.15	0.00	0.74	0.02	0.00	0.16	0.00	0.00	0.01
2	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.03	0.00	0.00	0.00
3	0.00	0.00	0.14	0.11	0.00	0.00	0.02	0.00	0.07	0.00	0.00	0.00
4	0.00	0.00	0.63	0.00	0.00	0.00	1.75	0.00	0.32	0.00	0.00	0.00
5	0.00	0.00	0.43	0.00	0.00	0.00	0.33	0.00	0.01	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.10	0.16	0.02	0.00	0.00	0.08	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
8	0.35	0.00	0.00	0.00	0.00	0.04	0.46	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.17	0.00	0.00	0.02	0.00	0.03	0.00	0.01	0.00	0.00	0.76
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.90
12	0.18	0.27	0.06	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.03
13	0.00	0.05	0.36	0.24	0.00	0.00	0.61	0.12	0.00	0.00	0.00	0.11
14	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.25	0.00	0.01
15	0.03	0.07	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.89	0.00	0.00	0.26	0.00	0.00	0.01	0.00	0.00	0.00	0.04
18	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
19	0.98	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00
20	0.31	0.00	0.47	0.00	0.15	0.00	0.03	0.00	0.76	0.00	0.00	0.00
21	0.00	0.01	0.96	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.29	0.01	0.00	0.07	0.17	0.00	0.00	0.00	0.00	0.00	0.00
23	0.10	0.00	0.00	0.00	0.22	0.05	0.00	0.00	0.00	0.00	0.00	0.01
24	0.00	0.00	0.00	0.65	0.00	0.00	0.30	0.31	1.10	0.00	0.43	0.29
25	0.00	0.54	0.00	0.46	0.75	0.20	0.21	0.00	0.01	0.09	0.02	0.00
26	0.00	0.00	0.00	0.00	0.16	1.80	0.40	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.05	0.00	0.02	0.03	0.00	0.00	0.00	0.00
29	0.00	0.00	1.74	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00
30	0.26		0.27	0.00	0.00	0.04	0.01	0.11	0.00	0.00	0.00	0.00
31	0.00		0.18		0.00		0.01	0.01		0.00		0.00
SUM	2.58	2.39	6.14	1.61	1.91	3.23	5.04	1.99	2.47	0.42	0.45	2.99

Note: "--" denotes missing data

Table D-6. Original data provided by State Climate Office (SCO) of North Carolina, Statesville, North Carolina (*Continued from previous page*)

Year: 2002, Station: STATESVILLE 2 NNE, NC

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.00	0.01	--	--	--	--	--	--	--	--	--	--
2	0.00	0.00	--	--	--	--	--	--	--	--	--	--
3	0.18	0.01	--	--	--	--	--	--	--	--	--	--
4	0.00	0.00	--	--	--	--	--	--	--	--	--	--
5	0.00	0.00	--	--	--	--	--	--	--	--	--	--
6	0.63	0.02	--	--	--	--	--	--	--	--	--	--
7	0.00	0.93	--	--	--	--	--	--	--	--	--	--
8	0.00	0.00	--	--	--	--	--	--	--	--	--	--
9	0.00	0.00	--	--	--	--	--	--	--	--	--	--
10	0.00	0.18	--	--	--	--	--	--	--	--	--	--
11	0.00	0.00	--	--	--	--	--	--	--	--	--	--
12	0.00	0.00	--	--	--	--	--	--	--	--	--	--
13	0.01	0.00	--	--	--	--	--	--	--	--	--	--
14	0.00	0.00	--	--	--	--	--	--	--	--	--	--
15	0.00	0.00	--	--	--	--	--	--	--	--	--	--
16	0.00	0.00	--	--	--	--	--	--	--	--	--	--
17	0.00	0.00	--	--	--	--	--	--	--	--	--	--
18	0.08	0.00	--	--	--	--	--	--	--	--	--	--
19	1.17	0.00	--	--	--	--	--	--	--	--	--	--
20	0.29	0.02	--	--	--	--	--	--	--	--	--	--
21	0.29	0.00	--	--	--	--	--	--	--	--	--	--
22	0.00	0.00	--	--	--	--	--	--	--	--	--	--
23	1.86	0.00	--	--	--	--	--	--	--	--	--	--
24	0.02	0.00	--	--	--	--	--	--	--	--	--	--
25	0.40	0.00	--	--	--	--	--	--	--	--	--	--
26	0.00	0.00	--	--	--	--	--	--	--	--	--	--
27	0.00	0.00	--	--	--	--	--	--	--	--	--	--
28	0.00	0.00	--	--	--	--	--	--	--	--	--	--
29	0.00	0.00	--	--	--	--	--	--	--	--	--	--
30	0.00		--	--	--	--	--	--	--	--	--	--
31	0.00		--		--		--	--		--		--
SUM	4.93	1.17	--	--	--	--	--	--	--	--	--	--

Note: "--" denotes missing data

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1981
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	---	---	---	---	---	---	---	20.71	20.70	20.91
2	---	---	---	---	---	---	---	---	---	20.71	20.69	20.89
3	---	---	---	---	---	---	---	---	---	20.73	20.70	20.90
4	---	---	---	---	---	---	---	---	---	20.75	20.73	20.90
5	---	---	---	---	---	---	---	---	---	20.76	20.73	20.91
6	---	---	---	---	---	---	---	---	---	20.77	20.72	20.91
7	---	---	---	---	---	---	---	---	---	20.78	20.74	20.89
8	---	---	---	---	---	---	---	---	---	20.80	20.75	20.89
9	---	---	---	---	---	---	---	---	---	20.82	20.76	20.90
10	---	---	---	---	---	---	---	---	---	20.83	20.77	20.91
11	---	---	---	---	---	---	---	---	---	20.85	20.77	20.92
12	---	---	---	---	---	---	---	---	---	20.86	20.78	20.94
13	---	---	---	---	---	---	---	---	---	20.87	20.78	20.95
14	---	---	---	---	---	---	---	---	---	20.88	20.78	20.95
15	---	---	---	---	---	---	---	---	---	20.89	20.78	20.86
16	---	---	---	---	---	---	---	---	---	20.90	20.78	20.72
17	---	---	---	---	---	---	---	---	---	20.91	20.79	20.61
18	---	---	---	---	---	---	---	---	---	20.91	20.81	20.55
19	---	---	---	---	---	---	---	---	---	20.93	20.81	20.54
20	---	---	---	---	---	---	---	---	---	20.94	20.82	20.53
21	---	---	---	---	---	---	---	---	---	20.95	20.85	20.52
22	---	---	---	---	---	---	---	---	---	20.95	20.85	20.51
23	---	---	---	---	---	---	---	---	---	20.96	20.86	20.50
24	---	---	---	---	---	---	---	---	---	20.97	20.86	20.51
25	---	---	---	---	---	---	---	---	---	20.98	20.88	20.43
26	---	---	---	---	---	---	---	---	---	20.97	20.89	20.25
27	---	---	---	---	---	---	---	---	---	20.84	20.89	20.16
28	---	---	---	---	---	---	---	---	---	20.75	20.90	20.11
29	---	---	---	---	---	---	---	---	---	20.71	20.91	20.08
30	---	---	---	---	---	---	---	---	---	20.70	20.92	20.07
31	---	---	---	---	---	---	---	---	---	20.70	---	20.00
MEAN	---	---	---	---	---	---	---	---	---	20.84	20.80	20.64
MAX	---	---	---	---	---	---	---	---	---	20.98	20.92	20.95
MIN	---	---	---	---	---	---	---	---	---	20.70	20.69	20.00

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1982
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.87	19.27	18.28	18.49	18.91	19.25	19.27	19.64	19.92	20.61	20.78	20.11
2	19.82	19.24	18.21	18.50	18.91	19.27	19.30	19.63	19.94	20.63	20.78	20.19
3	19.72	19.12	18.20	18.46	18.93	19.27	19.30	19.63	19.96	20.65	20.77	20.10
4	19.54	19.00	18.19	18.56	18.95	19.27	19.32	19.65	19.99	20.66	20.73	20.14
5	19.47	18.95	18.18	18.56	18.96	19.26	19.37	19.66	20.03	20.69	20.64	20.03
6	19.39	18.88	18.18	18.58	18.96	19.29	19.40	19.68	20.06	20.72	20.57	20.05
7	19.35	18.89	18.15	18.63	18.96	19.30	19.41	19.68	20.09	20.74	20.52	20.02
8	19.35	18.85	18.17	18.62	18.97	19.31	19.43	19.68	20.11	20.74	20.50	19.99
9	19.29	18.79	18.10	18.61	19.00	19.33	19.46	19.66	20.16	20.75	20.48	19.96
10	19.32	18.83	18.06	18.63	19.02	19.34	19.48	19.67	20.18	20.77	20.48	19.93
11	19.32	18.81	18.03	18.63	19.04	19.33	19.49	19.61	20.21	20.78	20.47	19.72
12	19.36	18.79	18.03	18.63	19.05	19.32	19.52	19.56	20.24	20.79	20.45	19.79
13	19.32	18.78	18.03	18.63	19.07	19.17	19.54	19.54	20.27	20.78	20.44	19.74
14	19.32	18.79	18.07	18.63	19.08	19.09	19.52	19.53	20.28	20.78	20.41	19.69
15	19.39	18.78	18.06	18.63	19.11	19.03	19.53	19.53	20.28	20.78	20.38	19.60
16	19.39	18.72	18.07	18.63	19.12	18.99	19.54	19.53	20.30	20.80	20.37	19.48
17	19.44	18.63	18.07	18.63	19.14	18.99	19.55	19.54	20.32	20.82	20.35	19.44
18	19.45	18.61	18.14	18.68	19.16	18.98	19.56	19.57	20.33	20.84	20.35	19.38
19	19.48	18.54	18.11	18.87	19.18	18.97	19.57	19.63	20.37	20.85	20.27	19.32
20	19.51	18.49	18.14	18.88	19.19	19.00	19.59	19.65	20.40	20.86	20.31	19.30
21	19.48	18.46	18.16	18.91	19.19	19.02	19.63	19.67	20.42	20.87	20.31	19.31
22	19.46	18.50	18.21	18.91	19.20	19.04	19.64	19.70	20.44	20.89	20.30	19.32
23	19.28	18.49	18.24	18.85	19.21	19.07	19.65	19.72	20.46	20.90	20.29	19.32
24	19.23	18.46	18.26	18.86	19.19	19.09	19.66	19.74	20.47	20.91	20.32	19.33
25	19.19	18.54	18.26	18.87	19.17	19.11	19.66	19.74	20.49	20.88	20.37	19.34
26	19.23	18.56	18.33	18.85	19.19	19.14	19.67	19.78	20.50	20.80	20.36	19.34
27	19.24	18.49	18.40	18.87	19.22	19.15	19.68	19.80	20.52	20.79	20.35	19.36
28	19.23	18.41	18.45	18.89	19.23	19.15	19.67	19.83	20.55	20.78	20.04	19.34
29	19.24	---	18.45	18.91	19.23	19.17	19.70	19.87	20.57	20.78	20.29	19.37
30	19.23	---	18.45	18.91	19.23	19.21	19.69	19.89	20.60	20.78	20.28	19.43
31	19.19	---	18.46	---	19.25	---	19.63	19.90	---	20.79	---	19.43
MEAN	19.39	18.74	18.20	18.71	19.10	19.16	19.53	19.67	20.28	20.78	20.43	19.64
MAX	19.87	19.27	18.46	18.91	19.25	19.34	19.70	19.90	20.60	20.91	20.78	20.19
MIN	19.19	18.41	18.03	18.46	18.91	18.97	19.27	19.53	19.92	20.61	20.04	19.30

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1983
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.45	19.39	18.28	17.66	17.04	17.95	18.53	19.30	20.10	20.71	20.89	20.29
2	19.45	19.29	18.34	17.58	17.04	17.99	18.55	19.35	20.12	20.72	20.88	20.29
3	19.46	19.22	18.38	17.50	17.04	17.99	18.58	19.38	20.16	20.73	20.87	20.27
4	19.47	19.21	18.39	17.50	17.10	17.97	18.60	19.37	20.20	20.75	20.85	20.08
5	19.44	19.19	18.41	17.45	17.16	18.03	18.60	19.40	20.21	20.76	20.85	19.92
6	19.43	19.12	18.38	17.40	17.24	18.02	18.65	19.44	20.24	20.78	20.86	19.78
7	19.43	19.08	18.32	17.35	17.25	18.02	18.70	19.47	20.27	20.80	20.87	19.69
8	19.47	19.06	18.29	17.27	17.19	18.09	18.72	19.51	20.30	20.81	20.88	19.62
9	19.48	19.02	18.30	17.22	17.32	18.12	18.76	19.54	20.33	20.82	20.88	19.59
10	19.46	18.99	18.28	17.10	17.34	18.15	18.78	19.56	20.35	20.84	20.85	19.56
11	19.45	18.94	18.19	17.07	17.37	18.17	18.80	19.59	20.39	20.85	20.84	19.53
12	19.50	18.90	18.16	17.04	17.39	18.20	18.83	19.60	20.42	20.85	20.87	19.34
13	19.53	18.80	18.14	17.02	17.44	18.22	18.86	19.64	20.44	20.85	20.88	19.20
14	19.52	18.64	18.11	16.98	17.45	18.23	18.88	19.67	20.45	20.87	20.89	19.16
15	19.52	18.52	18.11	16.93	17.47	18.25	18.91	19.69	20.47	20.88	20.87	19.16
16	19.54	18.47	18.11	16.92	17.50	18.28	18.92	19.71	20.48	20.89	20.82	19.18
17	19.56	18.43	18.07	16.87	17.63	18.29	18.96	19.73	20.49	20.89	20.80	19.17
18	19.62	18.41	17.98	16.85	17.65	18.32	19.00	19.76	20.51	20.90	20.79	19.15
19	19.65	18.40	17.94	16.90	17.65	18.35	19.00	19.78	20.53	20.90	20.77	19.15
20	19.67	18.40	17.90	16.93	17.65	18.38	19.03	19.80	20.54	20.92	20.75	19.17
21	19.66	18.37	17.87	16.98	17.65	18.38	19.07	19.84	20.54	20.94	20.76	19.17
22	19.65	18.34	17.94	17.01	17.64	18.30	19.08	19.86	20.57	20.94	20.76	19.09
23	19.55	18.29	17.91	16.94	17.71	18.41	19.04	19.90	20.58	20.90	20.75	19.02
24	19.47	18.30	17.85	16.84	17.75	18.41	19.09	19.89	20.61	20.87	20.72	18.98
25	19.42	18.31	17.92	16.91	17.78	18.42	19.12	19.92	20.62	20.86	20.57	18.98
26	19.40	18.37	17.94	16.93	17.78	18.47	19.17	19.94	20.62	20.87	20.44	18.98
27	19.38	18.35	17.80	16.93	17.84	18.48	19.20	19.96	20.63	20.87	20.36	18.98
28	19.39	18.29	17.73	16.94	17.86	18.50	19.23	19.98	20.66	20.88	20.29	18.93
29	19.39	---	17.73	16.98	17.82	18.48	19.26	20.00	20.67	20.88	20.29	18.89
30	19.37	---	17.70	17.01	17.84	18.51	19.28	20.05	20.69	20.90	20.30	18.90
31	19.39	---	17.65	---	17.90	---	19.31	20.07	---	20.90	---	18.87
MEAN	19.49	18.72	18.07	17.10	17.50	18.25	18.92	19.70	20.44	20.85	20.74	19.36
MAX	19.67	19.39	18.41	17.66	17.90	18.51	19.31	20.07	20.69	20.94	20.89	20.29
MIN	19.37	18.29	17.65	16.84	17.04	17.95	18.53	19.30	20.10	20.71	20.29	18.87

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1984
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.86	---	16.93	16.56	16.61	16.18	17.15	---	---	---	18.50	18.84
2	18.83	---	16.89	16.53	16.60	16.18	17.14	---	---	---	18.50	18.86
3	18.83	---	16.91	16.50	16.53	16.22	17.15	---	---	---	18.54	18.84
4	18.81	---	16.92	16.41	16.58	16.28	17.14	---	---	---	18.52	18.88
5	18.81	---	16.84	16.43	16.68	16.34	17.16	---	---	---	18.52	18.84
6	18.81	---	16.74	16.49	16.66	16.39	17.20	---	---	---	18.57	18.80
7	18.87	---	16.74	16.56	16.59	16.44	17.22	---	---	---	18.61	18.85
8	18.91	---	16.68	16.61	16.38	16.49	17.28	---	---	---	18.61	18.83
9	18.94	---	16.76	16.60	16.34	16.55	17.30	---	---	---	18.60	18.85
10	18.89	---	16.72	16.30	16.34	16.60	17.32	---	---	---	18.58	18.83
11	18.77	---	16.72	16.13	16.32	16.66	17.33	---	---	---	18.59	18.85
12	18.71	---	16.80	16.11	16.32	16.72	17.37	---	---	---	---	18.85
13	18.65	---	16.76	16.08	16.34	16.76	17.42	---	---	---	---	18.89
14	18.61	---	16.79	16.07	16.36	16.80	17.44	---	---	---	---	18.92
15	18.59	---	16.80	16.07	16.43	16.86	17.40	---	---	---	---	18.92
16	18.55	---	16.78	16.09	16.49	16.92	17.38	---	---	---	---	18.92
17	18.57	---	16.84	16.16	16.55	16.94	17.31	---	---	---	---	18.92
18	18.53	---	16.86	16.24	16.56	16.96	16.98	---	---	---	---	18.92
19	18.45	---	16.88	16.31	16.56	17.01	16.77	---	---	---	---	18.92
20	18.40	---	16.87	16.35	16.62	17.06	16.68	---	---	---	---	18.94
21	18.37	---	16.90	16.40	16.70	17.07	16.64	---	---	---	---	18.95
22	18.36	---	16.99	16.40	16.76	17.03	16.65	---	---	---	---	18.95
23	18.33	---	17.07	16.30	16.78	17.05	16.68	---	---	---	---	18.98
24	18.26	---	17.06	16.37	16.84	17.05	16.70	---	---	---	---	18.96
25	18.14	---	16.99	16.42	16.85	17.08	16.73	---	---	---	---	19.01
26	18.10	---	17.08	16.47	16.90	17.11	16.73	---	---	18.43	18.78	19.03
27	18.03	17.00	17.08	16.50	16.91	17.15	16.69	---	---	18.44	18.80	19.01
28	18.06	16.89	16.89	16.57	16.71	17.18	16.52	---	---	18.45	18.76	19.00
29	---	16.94	16.69	16.59	16.40	17.19	16.44	---	---	18.46	18.80	19.01
30	---	---	16.66	16.55	16.26	17.17	16.43	---	---	18.48	18.80	19.03
31	---	---	16.61	---	16.19	---	---	---	---	18.50	---	19.04
MEAN	---	---	16.85	16.37	16.55	16.78	---	---	---	---	---	18.92
MAX	---	---	17.08	16.61	16.91	17.19	---	---	---	---	---	19.04
MIN	---	---	16.61	16.07	16.19	16.18	---	---	---	---	---	18.80

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(Continued from previous page)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1
Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1985
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.03	18.62	17.52	18.03	18.52	18.55	19.05	19.33	18.26	19.10	19.22	18.08
2	19.05	18.31	17.54	18.05	18.53	18.60	19.05	19.37	18.23	18.59	19.24	17.97
3	19.03	18.19	17.60	18.05	18.55	18.62	19.06	19.38	18.23	18.63	19.17	17.94
4	18.87	18.11	17.56	18.09	18.59	18.63	19.07	19.39	18.24	18.63	19.14	17.90
5	18.80	17.99	17.58	18.10	18.59	18.64	19.09	19.39	18.26	18.63	19.20	17.83
6	18.76	17.88	17.67	18.13	18.60	18.65	19.12	19.40	18.29	18.73	19.21	17.83
7	18.67	17.84	17.68	18.16	18.62	18.63	19.14	19.39	18.32	18.84	19.21	17.85
8	18.68	17.82	17.63	18.18	18.63	18.62	19.16	19.36	18.34	18.87	19.25	17.84
9	18.71	17.79	17.66	18.22	18.64	18.60	19.17	19.36	18.35	18.88	19.25	17.86
10	18.69	17.77	17.69	18.24	18.65	18.61	19.20	19.35	18.38	18.88	19.24	17.89
11	18.67	17.71	17.67	18.25	18.66	18.61	19.23	19.34	18.43	18.89	19.25	17.87
12	18.70	17.58	17.67	18.28	18.65	18.60	19.25	19.33	18.49	18.94	19.26	17.80
13	18.68	17.57	17.73	18.28	18.64	18.63	19.25	19.34	18.54	18.96	19.24	17.64
14	18.64	17.52	17.74	18.28	18.63	18.64	19.25	19.38	18.58	18.97	19.25	17.87
15	18.63	17.50	17.80	18.27	18.61	18.65	19.24	19.40	18.59	18.99	19.27	17.86
16	18.63	17.51	17.80	18.30	18.55	18.64	19.24	19.43	18.60	19.05	19.26	17.84
17	18.64	17.54	17.77	18.34	18.38	18.63	19.26	19.39	18.63	19.08	19.28	17.83
18	18.68	17.57	17.87	18.35	18.34	18.62	19.28	19.39	18.67	19.08	19.29	17.87
19	18.70	17.52	17.91	18.34	18.34	18.64	19.29	19.39	18.69	19.07	19.29	17.92
20	18.75	17.57	17.91	18.36	18.34	18.72	19.30	19.41	18.71	19.09	19.28	17.89
21	18.79	17.62	17.93	18.38	18.33	18.84	19.32	18.69	18.74	19.11	18.91	17.92
22	18.79	17.62	17.85	18.39	18.33	18.86	19.34	18.63	18.78	19.12	18.45	17.90
23	18.80	17.61	17.88	18.40	18.32	18.88	19.36	18.63	18.82	19.14	18.74	17.88
24	18.79	17.61	17.88	18.41	18.34	18.90	19.36	18.67	18.84	19.15	18.70	17.91
25	18.80	17.65	17.96	18.42	18.36	18.92	19.33	18.80	18.86	19.15	18.67	17.99
26	18.88	17.62	17.99	18.45	18.39	18.95	19.35	18.75	18.89	19.18	18.63	18.03
27	18.85	17.58	17.94	18.46	18.41	18.98	19.35	18.70	18.93	19.19	18.61	18.05
28	18.83	17.58	17.94	18.47	18.43	19.01	19.37	18.58	19.02	19.21	18.54	18.08
29	18.87	---	17.97	18.51	18.48	19.03	19.35	18.47	19.05	19.22	18.14	18.08
30	18.87	---	17.99	18.52	18.52	19.04	19.34	18.35	19.08	19.22	18.14	18.15
31	18.83	---	18.00	---	18.52	---	19.34	18.28	---	19.22	---	17.97
MEAN	18.78	17.74	17.78	18.29	18.50	18.73	19.24	19.10	18.59	18.99	19.01	17.91
MAX	19.05	18.62	18.00	18.52	18.66	19.04	19.37	19.43	19.08	19.22	19.29	18.15
MIN	18.63	17.50	17.52	18.03	18.32	18.55	19.05	18.28	18.23	18.59	18.14	17.64

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1986
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.16	18.70	18.79	18.37	18.96	19.56	20.23	20.82	20.10	20.43	20.60	19.52
2	18.19	18.68	18.78	18.37	19.01	19.61	20.26	20.83	20.10	20.45	20.59	19.46
3	18.17	18.69	18.77	18.43	19.04	19.65	20.28	20.84	20.10	20.47	20.59	19.40
4	18.22	18.70	18.78	18.45	19.06	19.67	20.32	20.85	20.11	20.49	20.59	19.37
5	18.25	18.70	18.79	18.46	19.07	19.68	20.35	20.85	20.08	20.51	20.59	19.35
6	18.29	18.70	18.77	18.47	19.09	19.70	20.39	20.85	20.01	20.55	20.60	19.34
7	18.34	18.63	18.81	18.47	19.10	19.72	20.41	20.85	19.98	20.58	20.61	19.32
8	18.39	18.63	18.88	18.46	19.13	19.74	20.43	20.83	19.97	20.61	20.51	19.32
9	18.36	18.63	18.86	18.50	19.17	19.77	20.45	20.83	19.97	20.63	20.42	19.31
10	18.34	18.63	18.83	18.52	19.20	19.80	20.48	20.84	19.97	20.64	20.37	19.27
11	18.39	18.77	18.83	18.53	19.20	19.80	20.50	20.83	19.97	20.66	20.30	19.19
12	18.38	18.83	18.89	18.58	19.22	19.81	20.52	20.57	19.97	20.68	20.21	19.05
13	18.42	18.85	18.87	18.61	19.23	19.84	20.55	20.31	20.01	20.68	20.13	19.04
14	18.44	18.81	18.80	18.63	19.26	19.86	20.57	20.03	20.04	20.63	20.08	18.98
15	18.52	18.83	18.78	18.63	19.26	19.88	20.58	19.92	20.06	20.62	20.01	18.94
16	18.54	18.85	18.73	18.66	19.27	19.91	20.62	19.87	20.08	20.61	19.97	18.92
17	18.55	18.84	18.72	18.69	19.28	19.93	20.64	19.87	20.11	20.61	19.95	18.92
18	18.53	18.82	18.69	18.73	19.30	19.96	20.66	19.87	20.13	20.64	19.93	18.90
19	18.47	18.82	18.62	18.76	19.31	19.98	20.69	19.88	20.15	20.65	19.94	18.93
20	18.53	18.84	18.59	18.73	19.33	20.00	20.71	19.88	20.17	20.66	19.91	18.95
21	18.58	18.81	18.54	18.64	19.36	20.04	20.74	19.89	20.18	20.68	19.87	19.00
22	18.58	18.82	18.49	18.63	19.38	20.06	20.76	19.90	20.20	20.69	19.84	19.01
23	18.62	18.81	18.42	18.63	19.40	20.06	20.77	19.91	20.21	20.71	19.81	19.00
24	18.64	18.78	18.40	18.63	19.42	20.08	20.79	19.93	20.23	20.73	19.79	18.91
25	18.60	18.79	18.40	18.63	19.46	20.10	20.79	19.96	20.27	20.71	19.79	18.81
26	18.54	18.74	18.36	18.63	19.48	20.14	20.79	19.98	20.30	20.68	19.75	18.76
27	18.57	18.72	18.34	18.63	19.49	20.17	20.77	19.98	20.32	20.62	19.68	18.74
28	18.64	18.79	18.36	18.79	19.50	20.17	20.76	20.01	20.37	20.61	19.61	18.72
29	18.63	---	18.35	18.93	19.52	20.20	20.77	20.05	20.41	20.59	19.54	18.71
30	18.68	---	18.35	18.96	19.53	20.22	20.79	20.06	20.42	20.59	19.53	18.70
31	18.69	---	18.36	---	19.54	---	20.80	20.08	---	20.61	---	18.74
MEAN	18.46	18.76	18.64	18.61	19.28	19.90	20.59	20.30	20.13	20.61	20.10	19.05
MAX	18.69	18.85	18.89	18.96	19.54	20.22	20.80	20.85	20.42	20.73	20.61	19.52
MIN	18.16	18.63	18.34	18.37	18.96	19.56	20.23	19.87	19.97	20.43	19.53	18.70

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(Continued from previous page)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1987
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.70	17.82	16.66	16.52	15.23	16.88	17.81	18.65	19.20	18.88	19.45	19.27
2	18.67	17.70	16.62	16.43	15.29	16.92	17.84	18.66	19.22	18.89	19.46	19.28
3	18.65	17.64	16.58	16.39	15.39	16.96	17.87	18.67	19.25	18.93	19.47	19.25
4	18.62	17.62	16.57	16.39	15.51	16.99	17.89	18.68	19.28	18.95	19.46	19.24
5	18.61	17.57	16.57	16.42	15.58	17.02	17.92	18.69	19.27	18.96	19.48	19.27
6	18.61	17.47	16.57	16.43	15.60	17.05	17.95	18.70	19.26	18.96	19.52	19.30
7	18.59	17.41	16.54	16.44	15.65	17.08	17.98	18.70	19.17	19.00	19.53	19.32
8	18.62	17.38	16.50	16.47	15.76	17.11	18.01	18.69	18.98	19.06	19.53	19.32
9	18.62	17.50	16.52	16.52	15.85	17.13	18.04	18.68	18.92	19.10	19.54	19.30
10	18.60	17.50	16.61	16.56	15.89	17.18	18.07	18.69	18.85	19.10	19.51	19.25
11	18.64	17.49	16.59	16.58	15.95	17.22	18.09	18.73	18.61	19.10	19.51	19.14
12	18.66	17.47	16.55	16.64	16.01	17.24	18.12	18.71	18.61	19.13	19.52	19.06
13	18.70	17.57	16.54	16.72	16.10	17.27	18.14	18.71	18.61	19.17	19.51	19.06
14	18.72	17.58	16.56	16.75	16.15	17.29	18.16	18.72	18.61	19.20	19.53	19.04
15	18.73	17.65	16.58	16.55	16.15	17.33	18.21	18.70	18.61	19.21	19.55	18.94
16	18.78	17.65	16.65	16.04	16.22	17.35	18.25	18.70	18.61	19.22	19.55	18.84
17	18.81	17.69	16.68	15.93	16.26	17.40	18.29	18.72	18.61	19.24	19.51	18.80
18	18.75	17.73	16.69	15.92	16.29	17.44	18.31	18.77	18.62	19.26	19.56	18.77
19	18.61	17.78	16.62	15.91	16.34	17.45	18.33	18.80	18.65	19.28	19.56	18.74
20	18.51	17.75	16.55	15.88	16.41	17.46	18.36	18.85	18.66	19.29	19.53	18.72
21	18.45	17.71	16.53	15.86	16.46	17.49	18.38	18.89	18.68	19.32	19.58	18.74
22	18.37	17.65	16.57	15.88	16.50	17.53	18.41	18.90	18.69	19.35	19.60	18.73
23	18.43	17.61	16.60	15.90	16.53	17.57	18.44	18.95	18.72	19.37	19.61	18.78
24	18.42	17.56	16.63	15.75	16.57	17.61	18.48	19.00	18.73	19.38	19.62	18.78
25	18.35	17.50	16.64	15.49	16.61	17.63	18.51	19.03	18.77	19.39	19.62	18.75
26	18.32	17.50	16.66	15.28	16.67	17.65	18.54	19.05	18.81	19.40	19.63	18.74
27	18.30	17.47	16.67	15.16	16.70	17.68	18.57	19.08	18.84	19.38	19.58	18.74
28	18.27	17.12	16.73	15.10	16.73	17.73	18.60	19.10	18.87	19.41	19.50	18.62
29	18.21	---	16.77	15.11	16.76	17.77	18.64	19.14	18.85	19.41	19.38	18.52
30	18.10	---	16.64	15.13	16.79	17.79	18.66	19.18	18.82	19.42	19.31	18.48
31	17.97	---	16.57	---	16.84	---	18.67	19.19	---	19.44	---	18.42
MEAN	18.53	17.57	16.61	16.07	16.15	17.34	18.24	18.83	18.85	19.20	19.52	18.94
MAX	18.81	17.82	16.77	16.75	16.84	17.79	18.67	19.19	19.28	19.44	19.63	19.32
MIN	17.97	17.12	16.50	15.10	15.23	16.88	17.81	18.65	18.61	18.88	19.31	18.42

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1988
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.39	17.54	17.67	17.60	17.86	18.09	18.87	19.68	19.41	18.29	18.27	18.17
2	18.39	17.52	17.67	17.60	17.89	18.11	18.92	19.71	19.40	18.28	18.30	18.17
3	18.34	17.57	17.67	17.59	17.91	18.15	18.96	19.74	19.38	18.18	18.33	18.15
4	18.26	17.48	17.66	17.58	17.91	18.21	19.01	19.74	19.34	17.85	18.31	18.18
5	18.19	17.42	17.76	17.61	17.91	18.24	19.05	19.76	19.12	17.79	18.24	18.18
6	18.14	17.40	17.73	17.55	17.91	18.26	19.06	19.78	19.00	17.76	18.33	18.17
7	18.10	17.37	17.77	17.55	17.96	18.27	19.08	19.80	18.97	17.73	18.36	18.18
8	18.04	17.33	17.79	17.62	17.99	18.30	19.10	19.83	18.96	17.71	18.38	18.23
9	18.06	17.32	17.71	17.65	17.99	18.32	19.14	19.84	18.91	17.71	18.41	18.22
10	18.07	17.33	17.73	17.64	17.99	18.35	19.17	19.82	18.72	17.70	18.39	18.25
11	18.06	17.32	17.83	17.64	18.03	18.37	19.20	---	18.64	17.72	18.46	18.28
12	18.05	17.29	17.78	17.65	18.06	18.38	19.21	---	18.60	17.79	18.48	18.32
13	18.05	17.36	17.76	17.66	18.06	18.41	19.24	19.73	18.58	17.85	18.47	18.28
14	18.07	17.38	17.78	17.67	18.07	18.45	19.26	19.72	18.58	17.85	18.50	18.33
15	18.01	17.31	17.83	17.66	18.08	18.46	19.28	19.72	18.61	17.86	18.52	18.35
16	18.01	17.41	17.87	17.70	18.08	18.47	19.31	19.75	18.61	17.89	18.53	18.38
17	17.97	17.44	17.87	17.68	18.02	18.49	19.34	19.79	18.55	17.93	18.53	18.38
18	17.93	17.43	17.83	17.63	17.88	18.53	19.37	19.82	18.48	17.94	18.58	18.44
19	17.88	17.38	17.80	17.68	17.81	18.57	19.40	19.84	18.40	17.97	18.57	18.47
20	17.73	17.39	17.81	17.69	17.79	18.59	19.43	19.86	18.37	18.03	18.53	18.50
21	17.64	17.49	17.84	17.65	17.79	18.60	19.44	19.89	18.36	18.00	18.61	18.52
22	17.62	17.52	17.88	17.68	17.79	18.62	19.48	19.79	18.36	18.02	18.63	18.56
23	17.58	17.49	17.85	17.70	17.80	18.65	19.50	19.66	18.36	18.05	18.60	18.55
24	17.57	17.57	17.83	17.70	17.81	18.59	19.52	19.58	18.36	18.07	18.63	18.54
25	17.50	17.58	17.81	17.74	17.86	18.64	19.53	19.56	18.32	18.14	18.65	18.60
26	17.58	17.59	17.70	17.74	17.94	18.68	19.55	19.59	18.30	18.17	18.65	18.63
27	17.60	17.53	17.66	17.75	17.96	18.74	19.56	19.64	18.28	18.23	18.63	18.64
28	17.59	17.62	17.66	17.79	17.97	18.78	19.59	19.64	18.27	18.25	18.41	18.60
29	17.57	17.63	17.61	17.81	18.01	18.81	19.62	19.64	18.29	18.30	18.31	18.62
30	17.54	---	17.60	17.85	18.06	18.84	19.63	19.53	18.29	18.32	18.19	18.62
31	17.54	---	17.60	---	18.08	---	19.66	19.45	---	18.33	---	18.65
MEAN	17.91	17.45	17.75	17.67	17.94	18.47	19.31	---	18.66	17.99	18.46	18.39
MAX	18.39	17.63	17.88	17.85	18.08	18.84	19.66	---	19.41	18.33	18.65	18.65
MIN	17.50	17.29	17.60	17.55	17.79	18.09	18.87	---	18.27	17.70	18.19	18.15

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1989
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.53	18.18	16.91	15.89	16.21	16.40	16.07	16.58	17.12	16.79	16.21	16.41
2	18.41	18.24	16.83	15.91	15.96	16.44	16.12	16.52	17.16	16.35	16.22	16.37
3	18.33	18.26	16.75	15.89	15.89	16.46	16.16	16.51	17.20	16.27	16.25	16.43
4	18.34	18.32	16.68	15.92	15.85	16.47	16.16	16.50	17.24	16.21	16.30	16.41
5	18.33	18.32	16.58	15.96	15.78	16.46	16.18	16.51	17.26	16.17	16.33	16.42
6	18.31	18.32	16.43	15.99	15.67	16.47	16.21	16.53	17.26	16.16	16.32	16.46
7	18.33	18.33	16.33	15.94	15.64	16.50	16.21	16.57	17.27	16.18	16.34	16.56
8	18.32	18.35	16.28	15.84	15.62	16.52	16.19	16.65	17.29	16.20	16.32	16.48
9	18.35	18.37	16.21	15.88	15.59	16.39	16.22	16.69	17.30	16.26	16.35	16.41
10	18.34	18.35	16.19	15.88	15.56	16.33	16.24	16.70	17.33	16.28	16.42	16.37
11	18.33	18.34	16.18	15.87	15.59	16.31	16.27	16.68	17.36	16.31	16.46	16.29
12	18.25	18.37	16.18	15.86	15.61	16.28	16.28	16.65	17.40	16.35	16.51	16.12
13	18.20	18.42	16.24	15.85	15.65	16.27	16.29	16.63	17.42	16.38	16.54	15.89
14	18.13	18.42	16.25	15.86	15.68	16.32	16.36	16.64	17.43	16.40	16.54	15.79
15	18.04	18.44	16.30	15.80	15.68	16.36	16.42	16.67	17.46	16.43	16.50	15.67
16	18.04	18.49	16.41	15.87	15.74	16.37	16.41	16.72	17.47	16.47	16.48	15.72
17	18.02	18.51	16.43	15.89	15.80	16.35	16.45	16.77	17.49	16.48	16.57	15.68
18	17.98	18.41	16.40	15.86	15.86	16.34	16.48	16.81	17.51	16.45	16.57	15.66
19	17.99	18.34	16.44	15.91	15.89	16.33	16.47	16.83	17.52	16.13	16.58	15.63
20	17.98	18.19	16.40	15.98	15.88	16.38	16.49	16.86	17.55	15.97	16.44	15.68
21	18.05	17.90	16.34	15.98	15.93	16.38	16.56	16.89	17.54	15.91	16.51	15.68
22	18.03	17.70	16.39	16.02	15.98	16.20	16.56	16.92	17.46	15.93	16.53	15.79
23	18.01	17.64	16.24	16.07	15.98	16.08	16.55	16.94	17.48	15.96	16.48	15.77
24	18.04	17.60	15.84	16.10	16.06	15.98	16.56	16.96	17.55	15.96	16.47	15.77
25	18.07	17.49	15.78	16.11	16.11	15.95	16.59	17.01	17.48	15.97	16.39	15.75
26	18.06	17.37	15.76	16.14	16.15	15.93	16.60	17.03	17.33	16.00	16.34	15.80
27	18.08	17.31	15.74	16.18	16.21	15.91	16.59	17.06	17.32	16.05	16.37	15.86
28	18.12	16.98	15.71	16.19	16.28	15.91	16.59	17.08	17.27	16.07	16.33	15.92
29	18.12	---	15.69	16.21	16.31	15.91	16.64	17.09	17.22	16.10	16.41	15.94
30	18.10	---	15.67	16.24	16.33	15.99	16.65	17.08	17.18	16.11	16.39	15.95
31	18.16	---	15.72	---	16.36	---	16.64	17.12	---	16.13	---	15.82
MEAN	18.17	18.11	16.24	15.97	15.90	16.27	16.39	16.78	17.36	16.21	16.42	16.02
MAX	18.53	18.51	16.91	16.24	16.36	16.52	16.65	17.12	17.55	16.79	16.58	16.56
MIN	17.98	16.98	15.67	15.80	15.56	15.91	16.07	16.50	17.12	15.91	16.21	15.63

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(Continued from previous page)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1990
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15.90	14.81	13.77	14.47	14.78	13.65	15.16	16.28	17.04	17.75	15.67	16.00
2	15.87	14.79	13.75	14.45	14.83	13.70	15.24	16.32	17.06	17.76	15.69	15.99
3	15.78	14.83	13.73	14.50	14.74	13.68	15.29	16.34	17.09	17.78	15.70	15.93
4	15.72	14.61	13.84	14.52	14.51	13.75	15.32	16.37	17.14	17.78	15.70	15.91
5	15.71	14.59	13.90	14.59	14.32	13.90	15.35	16.41	17.14	17.81	15.70	15.95
6	15.63	14.48	13.93	14.61	14.36	13.97	15.41	16.43	17.15	17.83	15.81	15.89
7	15.57	14.43	14.07	14.67	14.38	14.02	15.49	16.45	17.17	17.86	15.86	15.88
8	15.39	14.45	14.04	14.72	14.39	14.09	15.54	16.46	17.23	17.88	15.93	15.89
9	15.31	14.37	14.00	14.72	14.31	14.14	15.56	16.45	17.27	17.89	15.91	15.96
10	15.27	14.27	14.07	14.59	14.25	14.18	15.60	16.45	17.28	17.89	15.67	15.95
11	15.19	14.24	14.11	14.59	14.34	14.26	15.64	16.48	17.30	17.57	15.63	15.98
12	15.24	14.27	14.16	14.72	14.36	14.34	15.69	16.50	17.31	17.23	15.54	15.98
13	15.33	14.22	14.18	14.76	14.32	14.38	15.72	16.48	17.33	16.81	15.54	15.98
14	15.30	14.23	14.21	14.69	14.39	14.38	15.68	16.49	17.30	16.69	15.56	16.08
15	15.28	14.23	14.28	14.55	14.43	14.44	15.71	16.55	17.31	16.64	15.55	16.05
16	15.31	14.15	14.29	14.49	14.43	14.54	15.77	16.58	17.35	16.65	15.52	16.06
17	15.30	14.06	14.27	14.46	14.45	14.58	15.78	16.62	17.40	16.64	15.54	16.10
18	15.30	13.99	14.35	14.59	14.56	14.57	15.80	16.64	17.43	16.60	15.57	16.04
19	15.39	13.81	14.33	14.59	14.61	14.61	15.82	16.67	17.43	16.66	15.58	16.12
20	15.34	13.85	14.38	14.53	14.60	14.70	15.84	16.71	17.45	16.69	15.63	16.17
21	15.23	13.83	14.40	14.45	14.62	14.75	15.86	16.75	17.48	16.69	15.67	16.13
22	15.25	13.64	14.40	14.50	14.65	14.78	15.89	16.76	17.47	16.63	15.66	16.09
23	15.25	13.51	14.41	14.54	14.68	14.80	15.92	16.77	17.51	16.11	15.62	16.04
24	15.21	13.60	14.46	14.58	14.71	14.88	15.99	16.81	17.57	15.93	15.67	16.00
25	15.02	13.76	14.49	14.63	14.74	14.95	16.05	16.85	17.58	15.83	15.72	15.96
26	14.94	13.75	14.51	14.64	14.70	14.97	16.08	16.85	17.59	15.70	15.79	15.91
27	14.90	13.65	14.55	14.68	14.66	15.01	16.10	16.86	17.64	15.66	15.84	15.87
28	14.81	13.67	14.57	14.70	14.21	15.07	16.13	16.88	17.67	15.61	15.84	15.76
29	14.68	---	14.56	14.72	13.72	15.11	16.16	16.91	17.70	15.64	15.91	15.70
30	14.80	---	14.53	14.73	13.59	15.14	16.19	16.95	17.71	15.64	16.00	15.65
31	14.84	---	14.49	---	13.59	---	16.22	17.00	---	15.64	---	15.62
MEAN	15.29	14.15	14.23	14.60	14.43	14.44	15.74	16.62	17.37	16.82	15.70	15.96
MAX	15.90	14.83	14.57	14.76	14.83	15.14	16.22	17.00	17.71	17.89	16.00	16.17
MIN	14.68	13.51	13.73	14.45	13.59	13.65	15.16	16.28	17.04	15.61	15.52	15.62

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1991
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15.56	14.55	14.89	13.62	13.04	13.27	14.66	15.56	15.82	16.36	16.83	16.97
2	15.48	14.54	14.75	13.63	13.02	13.34	14.73	15.57	15.90	16.37	16.85	16.95
3	15.47	14.54	14.53	13.68	13.04	13.37	14.77	15.57	15.90	16.38	16.90	16.88
4	15.47	14.55	14.25	13.69	13.08	13.43	14.80	15.61	15.87	16.42	16.91	16.89
5	15.46	14.58	14.18	13.68	13.13	13.54	14.82	15.67	15.90	16.42	16.91	16.93
6	15.42	14.61	14.02	13.69	13.16	13.65	14.87	15.69	15.96	16.43	16.91	16.90
7	15.38	14.61	14.02	13.74	13.30	13.69	14.91	15.69	16.00	16.46	16.90	16.88
8	15.26	14.63	14.07	13.79	13.37	13.70	14.94	15.69	16.03	16.50	16.92	16.88
9	15.14	14.65	14.06	13.82	13.39	13.78	14.96	15.69	16.05	16.50	16.92	16.87
10	15.10	---	14.07	13.87	13.47	13.84	15.00	15.71	16.06	16.47	16.87	16.91
11	14.83	---	14.08	14.00	13.53	13.86	15.06	15.76	16.06	16.44	16.85	16.93
12	14.50	---	14.08	14.06	13.51	13.90	15.10	15.77	16.10	16.50	16.87	16.93
13	14.49	---	14.03	14.06	13.30	13.97	15.12	15.76	16.12	16.57	16.87	16.93
14	14.42	---	14.08	14.02	13.22	14.03	15.16	15.73	16.13	16.58	16.88	16.91
15	14.35	---	14.24	13.99	13.21	14.06	15.24	15.65	16.16	16.56	16.89	16.97
16	14.16	---	14.33	13.91	13.30	14.08	15.29	15.64	16.18	16.60	16.88	16.97
17	14.17	---	14.30	13.76	13.34	14.12	15.30	15.64	16.19	16.63	16.91	16.96
18	14.17	---	14.15	13.71	13.41	14.17	15.32	15.65	16.21	16.67	16.92	16.97
19	14.12	---	14.16	13.73	13.40	14.23	15.34	15.67	16.21	16.68	16.93	17.04
20	14.00	---	14.21	13.61	13.08	14.25	15.42	15.71	16.22	16.71	16.92	17.04
21	13.99	---	14.21	13.43	12.76	14.26	15.46	15.79	16.23	16.72	16.91	16.99
22	14.01	---	14.22	13.34	12.61	14.29	15.50	15.83	16.24	16.73	16.90	16.98
23	13.99	---	14.22	13.32	12.56	14.37	15.52	15.87	16.24	16.74	16.92	16.95
24	13.98	---	14.23	13.30	12.61	14.45	15.55	15.90	16.23	16.76	16.92	16.99
25	14.05	---	14.36	13.36	12.67	14.46	15.60	15.92	16.21	16.77	16.94	17.05
26	14.04	---	14.37	13.37	12.76	14.49	15.64	15.94	16.21	16.77	16.96	17.07
27	14.04	---	14.36	13.37	12.87	14.54	15.65	15.94	16.29	16.78	16.98	17.08
28	14.08	---	14.35	13.42	12.94	14.57	15.62	15.91	16.34	16.79	16.98	17.05
29	14.20	---	14.14	13.46	13.03	14.59	15.55	15.79	16.37	16.83	16.97	16.86
30	14.18	---	13.82	13.18	13.09	14.62	15.54	15.76	16.36	16.82	16.97	16.83
31	14.41	---	13.71	---	13.20	---	15.54	15.76	---	16.81	---	16.88
MEAN	14.58	---	14.21	13.65	13.11	14.03	15.23	15.74	16.13	16.61	16.91	16.95
MAX	15.56	---	14.89	14.06	13.53	14.62	15.65	15.94	16.37	16.83	16.98	17.08
MIN	13.98	---	13.71	13.18	12.56	13.27	14.66	15.56	15.82	16.36	16.83	16.83

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1992
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	16.88	16.67	16.06	15.45	15.75	15.64	15.49	16.49	16.68	16.46	15.89	14.50
2	16.84	16.71	16.02	15.48	15.76	15.64	15.53	16.51	16.71	16.46	15.78	14.51
3	16.76	16.71	16.00	15.49	15.78	15.64	15.54	16.51	16.73	16.45	15.75	14.62
4	16.67	16.70	16.04	15.49	15.83	15.59	15.57	16.53	16.76	16.38	15.68	14.59
5	16.60	16.71	16.06	15.60	15.90	15.42	15.60	16.59	16.79	16.17	15.50	14.63
6	16.57	16.72	16.03	15.63	15.97	15.38	15.62	16.63	16.77	16.07	15.47	14.67
7	16.58	16.71	15.82	15.62	16.00	15.35	15.66	16.65	16.77	16.01	15.44	14.64
8	16.60	16.77	15.73	15.63	15.91	15.33	15.69	16.66	16.77	15.95	15.42	14.70
9	16.57	16.85	15.70	15.65	15.84	15.29	15.71	16.66	16.79	15.77	15.42	14.77
10	16.56	16.89	15.61	15.69	15.81	15.20	15.75	16.67	16.80	15.65	15.41	14.60
11	16.60	16.86	15.59	15.71	15.78	15.13	15.84	16.69	16.71	15.61	15.39	14.52
12	16.62	16.88	15.57	15.75	15.74	15.04	15.91	16.72	16.67	15.60	15.27	14.56
13	16.59	16.87	15.56	15.91	15.70	14.97	15.95	16.68	16.64	15.59	15.13	14.58
14	16.56	16.88	15.56	15.92	15.74	14.94	16.01	16.44	16.62	15.62	15.09	14.59
15	16.68	16.86	15.55	15.92	15.83	14.92	16.05	16.35	16.62	15.63	15.05	14.57
16	16.71	16.81	15.61	15.96	15.90	14.95	16.09	16.33	16.62	15.63	15.06	14.55
17	16.71	16.81	15.58	15.98	15.94	14.99	16.13	16.32	16.62	15.64	15.03	14.45
18	16.73	16.78	15.58	16.02	15.92	14.99	16.15	16.31	16.64	15.67	15.03	14.43
19	16.77	16.73	15.54	16.04	15.83	14.97	16.16	16.30	16.65	15.70	15.05	14.39
20	16.75	16.74	15.62	16.05	15.75	15.01	16.21	16.29	16.67	15.78	15.09	14.30
21	16.77	16.75	15.66	16.01	15.72	15.08	16.27	16.35	16.69	15.79	15.04	14.28
22	16.79	16.73	15.64	15.82	15.70	15.15	16.32	16.38	16.69	15.84	14.98	14.20
23	16.70	16.69	15.66	15.71	15.67	15.16	16.36	16.42	16.69	15.84	14.96	14.14
24	16.67	16.59	15.74	15.63	15.67	15.17	16.36	16.46	16.70	15.79	14.97	14.22
25	16.68	16.49	15.75	15.61	15.73	15.23	16.33	16.48	16.70	15.82	14.92	14.19
26	16.69	16.22	15.63	15.63	15.76	15.27	16.30	16.50	16.69	15.88	14.74	14.22
27	16.70	16.14	15.55	15.65	15.82	15.31	16.29	16.51	16.67	15.90	14.61	14.29
28	16.67	16.05	15.54	15.65	15.88	15.41	16.35	16.51	16.58	15.93	14.55	14.23
29	16.66	16.04	15.52	15.69	15.92	15.46	16.40	16.58	16.50	15.95	14.54	14.20
30	16.63	---	15.50	15.69	15.80	15.49	16.42	16.63	16.47	15.97	14.51	14.16
31	16.60	---	15.48	---	15.66	---	16.46	16.66	---	15.94	---	14.17
MEAN	16.67	16.67	15.69	15.74	15.81	15.24	16.02	16.51	16.68	15.89	15.16	14.43
MAX	16.88	16.89	16.06	16.05	16.00	15.64	16.46	16.72	16.80	16.46	15.89	14.77
MIN	16.56	16.04	15.48	15.45	15.66	14.92	15.49	16.29	16.47	15.59	14.51	14.14

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1993
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14.25	12.96	13.04	10.89	11.88	12.59	13.54	14.66	15.30	15.50	15.99	15.93
2	14.32	13.17	13.00	10.98	11.94	12.64	13.57	14.68	15.36	15.50	16.00	15.89
3	14.33	13.18	13.01	11.16	11.97	12.64	13.58	14.74	15.38	15.51	15.95	15.86
4	14.28	13.23	12.64	11.22	11.96	12.68	13.64	14.80	15.38	15.53	15.93	15.78
5	14.11	13.25	12.52	11.21	11.87	12.73	13.70	14.81	15.38	15.59	15.87	15.68
6	14.02	13.23	12.48	11.05	11.84	12.79	13.73	14.80	15.39	15.63	15.85	15.64
7	13.96	13.34	12.43	11.01	11.85	12.80	13.78	14.83	15.42	15.62	15.94	15.63
8	13.85	13.32	12.41	11.00	11.95	12.80	13.83	14.85	15.40	15.60	15.97	15.62
9	13.62	13.47	12.55	11.00	11.98	12.83	13.87	14.87	15.41	15.59	15.96	15.61
10	13.52	13.46	12.51	10.85	12.00	12.92	13.91	14.89	15.43	15.63	15.93	15.57
11	13.38	13.45	12.66	10.91	12.03	12.97	13.93	14.91	15.48	15.65	15.94	15.56
12	13.20	13.39	12.72	10.95	11.99	13.05	13.96	14.93	15.51	15.63	15.95	15.59
13	13.10	13.36	12.35	11.10	12.02	13.05	14.02	14.95	15.53	15.65	15.96	15.60
14	13.16	13.49	12.60	11.17	12.06	12.97	14.07	14.93	15.54	15.69	15.97	15.55
15	13.14	13.56	12.48	11.24	12.13	12.95	14.09	14.94	15.55	15.71	15.96	15.50
16	13.09	13.42	12.21	11.21	12.16	13.02	14.11	14.98	15.58	15.71	15.99	15.48
17	13.12	13.39	11.88	11.28	12.19	13.08	14.15	15.01	15.50	15.68	15.96	15.49
18	13.22	13.31	11.75	11.33	12.20	13.10	14.22	15.03	15.44	15.71	15.98	15.45
19	13.31	13.33	11.69	11.36	12.21	13.12	14.26	15.07	15.43	15.78	15.95	15.43
20	13.32	13.26	11.62	11.40	12.22	13.16	14.28	15.08	15.43	15.80	15.97	15.40
21	13.18	13.19	11.64	11.38	12.25	13.18	14.33	15.08	15.39	15.81	16.04	15.24
22	12.89	13.09	11.74	11.45	12.32	13.18	14.35	15.09	15.39	15.86	16.04	15.21
23	12.85	13.11	11.76	11.58	12.35	13.25	14.38	15.10	15.40	15.87	16.02	15.16
24	12.76	13.13	11.36	11.64	12.36	13.33	14.42	15.11	15.40	15.88	16.01	15.12
25	12.77	13.16	11.11	11.68	12.40	13.35	14.43	15.14	15.41	15.88	16.05	15.06
26	12.70	13.07	10.98	11.68	12.44	13.35	14.44	15.17	15.39	15.90	16.07	15.13
27	12.66	13.06	10.78	11.81	12.48	13.37	14.46	15.18	15.39	15.91	16.01	15.14
28	12.75	13.06	10.66	11.83	12.49	13.41	14.48	15.18	15.44	15.93	15.88	15.13
29	12.83	---	10.68	11.82	12.51	13.42	14.52	15.21	15.46	15.96	15.87	15.07
30	12.95	---	10.82	11.83	12.57	13.50	14.57	15.23	15.49	15.90	15.91	15.11
31	12.84	---	10.92	---	12.54	---	14.64	15.25	---	15.90	---	15.12
MEAN	13.34	13.27	11.97	11.30	12.17	13.04	14.11	14.98	15.43	15.73	15.96	15.44
MAX	14.33	13.56	13.04	11.83	12.57	13.50	14.64	15.25	15.58	15.96	16.07	15.93
MIN	12.66	12.96	10.66	10.85	11.84	12.59	13.54	14.66	15.30	15.50	15.85	15.06

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1994
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15.07	13.79	13.11	11.62	13.02	13.93	14.46	14.79	14.89	15.39	15.64	15.69
2	15.04	13.78	12.70	11.79	13.13	13.98	14.48	14.78	14.91	15.39	15.72	15.68
3	15.02	13.80	12.47	11.83	13.14	14.05	14.51	14.79	14.87	15.41	15.77	15.65
4	14.95	13.81	12.42	11.96	13.09	14.07	14.54	14.80	14.85	15.43	15.77	15.63
5	14.97	13.78	12.51	12.06	13.10	14.10	14.55	14.80	14.85	15.44	15.77	15.56
6	14.90	13.83	12.59	12.12	13.14	14.09	14.56	14.85	14.84	15.46	15.77	15.53
7	14.84	13.89	12.59	12.29	13.13	14.08	14.59	14.87	14.84	15.48	15.83	15.49
8	14.80	13.88	12.62	12.41	13.16	14.10	14.65	14.89	14.89	15.49	15.82	15.52
9	14.78	13.86	12.70	12.41	13.23	14.13	14.66	14.93	14.92	15.48	15.79	15.52
10	14.74	13.99	12.59	12.42	13.26	14.11	14.68	14.98	14.98	15.49	15.82	15.49
11	14.66	13.90	12.58	12.53	13.30	14.02	14.70	15.02	15.01	15.51	15.86	15.49
12	14.43	13.78	12.55	12.53	13.28	13.99	14.73	15.05	15.05	15.51	15.85	15.54
13	14.27	13.62	12.43	12.42	13.38	13.99	14.77	15.06	15.06	15.51	15.84	15.54
14	14.19	13.58	12.41	12.55	13.40	14.03	14.80	15.04	15.09	15.48	15.85	15.53
15	14.26	13.52	12.43	12.58	13.40	14.09	14.83	15.02	15.12	15.50	15.87	15.53
16	14.31	13.52	12.56	12.58	13.41	14.13	14.85	14.99	15.15	15.55	15.87	15.52
17	14.15	13.52	12.65	12.62	13.44	14.14	14.87	14.81	15.17	15.55	15.87	15.49
18	14.14	13.52	12.62	12.64	13.50	14.16	14.92	14.67	15.16	15.56	15.88	15.48
19	14.18	13.54	12.77	12.63	13.53	14.19	14.97	14.63	15.19	15.57	15.93	15.52
20	14.11	13.54	12.82	12.66	13.56	14.24	14.99	14.59	15.23	15.57	15.95	15.54
21	14.09	13.54	12.82	12.70	13.58	14.26	14.99	14.57	15.23	15.60	15.89	15.57
22	14.07	13.60	12.95	12.74	13.59	14.28	15.00	14.56	15.24	15.61	15.90	15.54
23	14.06	13.50	13.00	12.78	13.63	14.31	15.00	14.64	15.25	15.62	15.91	15.49
24	14.07	13.22	13.02	12.79	13.69	14.31	15.02	14.67	15.29	15.63	15.91	15.51
25	14.08	13.15	13.03	12.80	13.70	14.37	15.03	14.68	15.30	15.63	15.90	15.57
26	14.10	13.12	13.11	12.83	13.74	14.43	15.04	14.69	15.26	15.64	15.91	15.63
27	14.17	13.15	12.88	12.93	13.81	14.42	15.06	14.73	15.24	15.65	15.90	15.63
28	13.94	13.13	12.35	12.98	13.87	14.43	15.07	14.77	15.29	15.68	15.75	15.63
29	13.87	---	11.72	13.00	13.88	14.44	14.93	14.78	15.33	15.69	15.77	15.65
30	13.83	---	11.51	13.03	13.91	14.44	14.84	14.84	15.39	15.69	15.70	15.71
31	13.81	---	11.46	---	13.93	---	14.81	14.88	---	15.68	---	15.71
MEAN	14.38	13.60	12.58	12.51	13.45	14.18	14.80	14.81	15.10	15.54	15.83	15.57
MAX	15.07	13.99	13.11	13.03	13.93	14.44	15.07	15.06	15.39	15.69	15.95	15.71
MIN	13.81	13.12	11.46	11.62	13.02	13.93	14.46	14.56	14.84	15.39	15.64	15.48

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1995
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15.68	14.97	14.36	14.51	15.47	16.20	14.51	15.04	15.09	15.03	14.33	14.16
2	15.70	14.98	14.29	14.55	15.46	16.22	14.51	15.06	15.04	15.03	14.29	14.24
3	15.76	15.02	14.25	14.62	15.50	16.08	14.54	15.12	15.02	15.04	14.27	14.25
4	15.77	14.97	14.20	14.61	15.52	16.02	14.62	15.14	15.02	15.03	14.32	14.27
5	15.82	15.04	14.15	14.67	15.52	16.00	14.65	15.16	15.02	14.79	14.32	14.31
6	15.76	15.09	14.11	14.68	15.55	15.96	14.68	15.19	15.03	14.66	14.29	14.32
7	15.55	15.08	14.06	14.70	15.58	15.96	14.65	15.26	15.03	14.59	14.17	14.33
8	15.48	15.13	14.00	14.74	15.61	15.97	14.61	15.31	15.05	14.56	14.09	14.36
9	15.42	15.18	13.93	14.78	15.63	16.02	14.60	15.34	15.09	14.57	14.06	14.28
10	15.40	15.16	13.85	14.85	15.63	16.04	14.64	15.36	15.15	14.57	14.03	14.26
11	15.39	15.15	13.77	14.90	15.63	16.07	14.69	15.41	15.20	14.59	13.92	14.24
12	15.39	15.22	13.75	14.90	15.66	16.06	14.76	15.44	15.21	14.63	13.93	14.23
13	15.39	15.27	13.76	14.90	15.72	16.03	14.83	15.47	15.21	14.64	13.87	14.22
14	15.35	15.30	13.77	14.95	15.74	16.02	14.85	15.51	15.22	14.61	13.80	14.19
15	15.13	15.29	13.78	14.99	15.73	16.04	14.88	15.55	15.26	14.59	13.84	14.18
16	14.98	15.14	13.83	15.02	15.80	16.06	14.93	15.61	15.25	14.66	13.87	14.21
17	14.90	14.85	13.88	15.04	15.82	16.00	14.97	15.63	15.09	14.74	13.90	14.29
18	14.86	14.62	13.93	15.07	15.85	15.93	15.01	15.67	15.05	14.75	13.88	14.27
19	14.81	14.45	13.97	15.09	15.87	15.87	15.06	15.72	15.05	14.75	13.88	14.12
20	14.75	14.32	14.00	15.13	15.94	15.76	15.11	15.72	15.04	14.72	13.90	14.20
21	14.77	14.31	14.02	15.16	15.97	15.67	15.14	15.72	15.03	14.68	13.89	14.22
22	14.81	14.36	14.06	15.20	16.00	15.63	15.18	15.76	15.03	14.68	13.96	14.23
23	14.82	14.34	14.11	15.23	16.04	15.48	15.22	15.82	15.02	14.68	13.97	14.24
24	14.85	14.39	14.25	15.23	16.05	15.40	15.26	15.85	15.00	14.66	14.04	14.24
25	14.89	14.45	14.32	15.27	16.07	15.28	15.31	15.88	14.97	14.65	14.05	14.22
26	14.91	14.46	14.34	15.32	16.09	15.22	15.11	15.93	14.95	14.65	14.04	14.25
27	14.93	14.50	14.34	15.34	16.12	15.10	14.99	15.64	14.94	14.63	14.04	14.26
28	14.93	14.48	14.37	15.37	16.13	14.99	14.97	15.23	14.98	14.42	14.09	14.32
29	14.96	---	14.43	15.43	16.13	14.72	14.97	15.14	15.01	14.40	14.13	14.35
30	14.96	---	14.45	15.43	16.13	14.56	14.97	15.10	15.03	14.37	14.18	14.34
31	14.96	---	14.49	---	16.17	---	15.01	15.10	---	14.35	---	14.29
MEAN	15.20	14.84	14.09	14.99	15.81	15.75	14.88	15.45	15.07	14.67	14.04	14.25
MAX	15.82	15.30	14.49	15.43	16.17	16.22	15.31	15.93	15.26	15.04	14.33	14.36
MIN	14.75	14.31	13.75	14.51	15.46	14.56	14.51	15.04	14.94	14.35	13.80	14.12

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
WORKING
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1996
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	14.29	12.90	13.14	12.62	12.95	13.82	14.47	15.23	15.72	15.40	15.34	14.99
2	14.28	12.85	13.13	12.67	12.89	13.84	14.49	15.23	15.77	15.28	15.35	14.84
3	14.26	12.71	13.24	12.65	12.89	13.84	14.50	15.25	15.79	15.24	15.43	14.76
4	14.30	12.71	13.31	12.62	12.89	13.86	14.55	15.28	15.74	15.25	15.43	14.72
5	14.39	12.70	13.24	12.69	12.94	13.89	14.61	15.29	15.67	15.26	15.43	14.68
6	14.41	12.68	13.19	12.70	12.98	13.92	14.63	15.31	15.58	15.26	15.43	14.63
7	14.35	12.65	13.13	12.71	13.08	13.93	14.64	15.34	15.53	15.25	15.42	14.56
8	14.25	12.57	13.05	12.77	13.06	13.96	14.66	15.36	15.50	15.20	15.34	14.52
9	14.35	12.51	13.02	12.76	13.08	13.96	14.69	15.38	15.49	15.19	15.32	14.52
10	14.29	12.49	13.00	12.78	13.11	13.93	14.78	15.42	15.49	15.19	15.32	14.51
11	14.33	12.42	12.92	12.79	13.09	13.90	14.83	15.44	15.45	15.20	15.33	14.48
12	14.26	12.54	12.84	12.77	13.15	13.90	14.84	15.43	15.30	15.20	15.38	14.48
13	14.19	12.57	12.83	12.78	13.22	13.92	14.84	15.40	15.22	15.19	15.38	14.44
14	14.22	12.48	12.86	12.82	13.26	13.95	14.88	15.39	15.22	15.17	15.35	14.40
15	14.14	12.58	12.85	12.82	13.27	13.96	14.93	15.41	15.22	15.17	15.40	14.36
16	14.02	12.64	12.94	12.82	13.24	13.99	14.98	15.43	15.22	15.19	15.41	14.32
17	13.86	12.72	12.97	12.93	13.26	14.02	14.99	15.44	15.19	15.21	15.39	14.28
18	13.68	12.77	12.98	12.93	13.33	14.03	15.02	15.47	15.20	15.21	15.33	14.31
19	13.45	12.84	12.82	12.93	13.36	14.05	15.03	15.49	15.21	15.19	15.30	14.31
20	13.38	12.84	12.79	12.95	13.38	14.07	15.06	15.51	15.22	15.18	15.31	14.36
21	13.26	12.87	12.79	12.97	13.41	14.09	15.12	15.52	15.23	15.19	15.34	14.38
22	13.23	12.86	12.80	12.96	13.48	14.13	15.14	15.54	15.23	15.20	15.40	14.36
23	13.22	12.90	12.84	12.93	13.56	14.17	15.19	15.57	15.26	15.20	15.41	14.34
24	13.16	12.99	12.85	13.00	13.59	14.23	15.22	15.59	15.29	15.25	15.41	14.31
25	13.25	13.04	12.84	12.97	13.62	14.26	15.23	15.61	15.28	15.29	15.39	14.37
26	13.21	13.01	12.88	12.95	13.64	14.32	15.23	15.62	15.34	15.33	15.33	14.38
27	13.02	13.04	12.98	13.06	13.65	14.35	15.23	15.62	15.35	15.35	15.34	14.37
28	12.97	13.05	12.87	13.11	13.68	14.37	15.24	15.63	15.35	15.31	15.29	14.38
29	12.85	13.15	12.70	13.07	13.66	14.41	15.24	15.65	15.38	15.31	15.24	14.38
30	12.78	---	12.69	12.98	13.74	14.43	15.23	15.67	15.41	15.31	15.23	14.41
31	12.79	---	12.64	---	13.78	---	15.23	15.70	---	15.35	---	---
MEAN	13.76	12.76	12.94	12.85	13.30	14.05	14.93	15.46	15.39	15.24	15.36	---
MAX	14.41	13.15	13.31	13.11	13.78	14.43	15.24	15.70	15.79	15.40	15.43	---
MIN	12.78	12.42	12.64	12.62	12.89	13.82	14.47	15.23	15.19	15.17	15.23	---

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1997
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	13.96	13.47	13.33	12.43	13.54	14.25	14.59	15.44	15.96	16.23	---
2	---	14.02	13.33	13.37	12.40	13.57	14.25	14.57	15.47	15.99	16.18	16.19
3	---	14.03	13.27	13.36	12.30	13.58	14.26	14.57	15.48	16.00	16.18	16.18
4	---	14.06	13.30	13.39	12.37	13.58	14.31	14.57	15.52	16.02	16.25	16.08
5	---	14.03	13.25	13.41	12.40	13.59	14.35	14.59	15.55	16.05	16.30	16.08
6	---	14.06	13.23	13.42	12.39	13.60	14.37	14.66	15.58	16.06	16.29	16.12
7	---	14.06	13.25	13.41	12.52	13.63	14.39	14.69	15.61	16.08	16.24	16.12
8	---	14.05	13.22	13.46	12.54	13.65	14.42	14.76	15.63	16.10	16.22	16.12
9	---	14.08	13.23	13.47	12.56	13.69	14.43	14.80	15.64	16.12	16.24	16.09
10	---	14.05	13.20	13.52	12.65	13.72	14.47	14.83	15.65	16.13	16.29	16.04
11	---	14.04	13.22	13.51	12.73	13.72	14.52	14.84	15.65	16.13	16.31	16.05
12	---	14.03	13.32	13.44	12.71	13.72	14.54	14.87	15.65	16.15	16.33	16.06
13	---	14.06	13.36	13.41	12.76	13.72	14.56	14.89	15.67	16.15	16.33	16.05
14	---	13.96	13.26	13.51	12.84	13.75	14.61	14.92	15.69	16.17	16.28	16.07
15	---	13.73	13.34	13.51	12.87	13.78	14.65	14.93	15.70	16.24	16.29	16.09
16	---	13.62	13.37	13.49	13.03	13.79	14.68	14.97	15.72	16.25	16.30	16.10
17	---	13.56	13.34	13.46	13.07	13.79	14.71	15.00	15.73	16.26	16.32	16.09
18	---	13.52	13.31	13.48	13.10	13.84	14.75	15.01	15.79	16.26	16.32	16.10
19	---	13.48	13.25	13.49	13.14	13.88	14.81	15.04	15.82	16.26	16.30	16.10
20	---	13.51	13.09	13.56	13.19	13.91	14.85	15.05	15.82	16.27	16.31	16.10
21	---	13.48	13.03	13.57	13.26	13.93	14.87	15.06	15.86	16.28	16.31	16.10
22	---	13.52	12.99	13.55	13.33	13.96	14.88	15.11	15.90	16.29	16.26	16.09
23	---	13.64	13.08	13.21	13.38	14.00	14.90	15.15	15.91	16.32	16.23	16.08
24	---	13.64	13.14	13.10	13.39	14.05	14.88	15.19	15.93	16.32	16.21	16.05
25	---	13.62	13.13	13.10	13.42	14.06	14.85	15.21	15.87	16.32	16.21	15.97
26	---	13.61	13.08	13.10	13.43	14.09	14.75	15.23	15.86	16.32	16.20	15.92
27	---	13.61	13.14	13.07	13.51	14.14	14.62	15.24	15.90	16.25	16.20	15.82
28	---	13.65	13.14	12.90	13.55	14.15	14.60	15.25	15.90	16.26	16.21	15.77
29	14.06	---	13.13	12.65	13.56	14.18	14.60	15.31	15.90	16.27	16.21	15.64
30	14.01	---	13.19	12.52	13.57	14.24	14.61	15.37	15.91	16.27	16.20	15.58
31	13.97	---	13.23	---	13.56	---	14.60	15.41	---	16.27	---	15.58
MEAN	---	13.81	13.22	13.33	12.97	13.83	14.59	14.96	15.72	16.19	16.26	---
MAX	---	14.08	13.47	13.57	13.57	14.24	14.90	15.41	15.93	16.32	16.33	---
MIN	---	13.48	12.99	12.52	12.30	13.54	14.25	14.57	15.44	15.96	16.18	---

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1998
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	15.60	13.88	13.46	13.45	12.90	13.76	14.64	15.64	16.37	16.94	17.54	17.74
2	15.56	13.90	13.47	13.52	12.97	13.81	14.72	15.68	16.40	16.98	17.57	17.76
3	15.51	13.83	13.55	13.53	13.02	13.86	14.77	15.71	16.44	17.03	17.59	17.79
4	15.46	13.64	13.61	13.37	13.04	13.90	14.81	15.74	16.43	17.05	17.59	17.78
5	15.44	13.61	13.65	13.39	13.11	13.90	14.83	15.76	16.45	17.05	17.60	17.78
6	15.39	13.60	13.69	13.39	13.17	13.94	14.88	15.78	16.47	17.06	17.62	17.77
7	15.32	13.56	13.68	13.40	13.13	13.98	14.93	15.80	16.48	17.07	17.65	17.78
8	15.23	13.57	13.52	13.38	13.06	14.01	14.96	15.82	16.48	17.07	17.68	17.80
9	15.17	13.63	13.24	13.27	13.11	14.00	14.97	15.84	16.51	17.07	17.67	17.80
10	15.14	13.66	13.23	13.31	13.09	13.98	15.01	15.83	16.56	17.10	17.65	17.82
11	15.11	13.60	13.23	13.36	13.08	14.00	15.07	15.81	16.57	17.12	17.63	17.83
12	15.10	13.66	13.23	13.40	13.13	14.02	15.12	15.84	16.58	17.14	17.66	17.84
13	15.07	13.73	13.22	13.39	13.17	14.04	15.15	15.88	16.59	17.16	17.70	17.84
14	15.10	13.81	13.20	13.33	13.17	14.09	15.20	15.90	16.61	17.17	17.67	17.75
15	14.97	13.88	13.27	13.34	13.17	14.07	15.24	15.91	16.63	17.21	17.64	17.71
16	14.74	13.82	13.34	13.37	13.17	14.15	15.28	15.92	16.65	17.24	17.63	17.69
17	14.68	13.60	13.34	13.16	13.22	14.21	15.30	15.93	16.66	17.26	17.62	17.69
18	14.65	13.55	13.30	13.04	13.29	14.24	15.34	15.96	16.68	17.27	17.64	17.70
19	14.59	13.55	13.25	12.87	13.31	14.24	15.40	15.98	16.71	17.29	17.67	17.72
20	14.59	13.52	13.19	12.66	13.34	14.29	15.44	16.02	16.74	17.29	17.65	17.70
21	14.59	13.55	13.20	12.57	13.36	14.34	15.48	16.06	16.76	17.34	17.63	17.68
22	14.57	13.56	13.24	12.54	13.42	14.36	15.52	16.08	16.76	17.38	17.70	17.65
23	14.47	13.44	13.29	12.57	13.44	---	15.56	16.09	16.77	17.42	17.72	17.68
24	14.39	13.45	13.31	12.63	13.47	---	15.59	16.11	16.81	17.45	17.69	17.70
25	14.39	13.48	13.38	12.73	13.49	14.44	15.63	16.15	16.84	17.46	17.70	17.63
26	14.39	13.48	13.36	12.77	---	14.46	15.62	16.18	16.86	17.47	17.70	17.55
27	14.24	13.45	13.34	12.86	---	14.49	15.59	16.21	16.87	17.49	17.71	17.51
28	13.95	13.44	13.35	12.95	13.62	14.53	15.58	16.25	16.89	17.50	17.73	17.49
29	13.88	---	13.38	12.97	13.67	14.59	15.58	16.28	16.90	17.50	17.74	17.45
30	13.83	---	13.42	12.94	13.70	14.62	15.61	16.31	16.92	17.51	17.75	17.43
31	13.84	---	13.44	---	13.71	---	15.64	16.34	---	17.53	---	17.47
MEAN	14.81	13.62	13.37	13.12	---	---	15.24	15.96	16.65	17.25	17.66	17.69
MAX	15.60	13.90	13.69	13.53	---	---	15.64	16.34	16.92	17.53	17.75	17.84
MIN	13.83	13.44	13.19	12.54	---	---	14.64	15.64	16.37	16.94	17.54	17.43

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 1999
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	17.48	16.24	15.99	16.07	16.25	16.57	17.50	18.02	18.65	18.80	18.81	19.00
2	17.50	16.17	16.05	16.02	16.14	16.60	17.53	18.05	18.66	18.80	18.80	19.01
3	17.46	16.12	16.07	16.03	16.10	16.64	17.56	18.08	18.67	18.80	18.88	19.01
4	17.32	16.11	16.05	16.03	16.06	16.68	17.59	18.11	18.69	18.80	18.90	19.01
5	17.26	16.14	16.15	16.02	16.04	16.73	17.62	18.13	18.69	18.80	18.90	18.99
6	17.21	16.15	16.15	16.07	16.03	16.78	17.65	18.16	18.67	18.80	18.90	18.97
7	17.14	16.12	16.12	16.08	16.03	16.82	17.68	18.18	18.65	18.80	18.90	19.00
8	17.10	16.11	16.22	16.08	16.05	16.86	17.69	18.21	18.67	18.80	18.90	19.02
9	17.05	16.17	16.21	16.07	16.10	16.89	17.69	18.22	18.68	18.80	18.92	19.00
10	17.03	16.17	16.14	16.06	16.14	16.94	17.71	18.23	18.69	18.80	18.91	18.96
11	17.06	16.20	16.16	16.15	16.18	16.99	17.72	18.26	18.72	18.80	18.91	19.00
12	17.05	16.19	16.20	16.14	16.22	17.01	17.73	18.30	18.74	18.80	18.91	19.01
13	17.04	16.19	16.25	16.21	16.23	17.06	17.73	18.33	18.75	18.74	18.90	18.98
14	17.04	16.28	16.24	16.23	16.23	17.10	17.71	18.35	18.75	18.70	18.90	18.94
15	17.03	16.30	16.16	16.24	16.17	17.13	17.70	18.37	18.76	18.77	18.90	18.94
16	17.02	16.30	16.21	16.18	16.12	17.15	17.70	18.38	18.75	18.78	18.90	18.95
17	17.02	16.28	16.22	16.24	16.09	17.17	17.72	18.41	18.78	18.76	18.97	18.96
18	17.01	16.25	16.21	16.31	16.07	17.20	17.74	18.44	18.81	18.74	19.00	18.96
19	16.95	16.24	16.22	16.33	16.06	17.26	17.76	18.48	18.81	18.77	18.97	18.94
20	16.91	16.24	16.26	16.33	16.10	17.29	17.79	18.50	18.82	18.80	18.90	18.91
21	16.86	16.19	16.23	16.34	16.15	17.29	17.80	18.51	18.83	18.78	18.90	18.90
22	16.83	16.14	16.12	16.36	16.17	17.29	17.82	18.53	18.83	18.76	18.90	18.86
23	16.80	16.12	16.10	16.38	16.18	17.32	17.84	18.56	18.87	18.74	18.90	18.85
24	16.73	16.09	16.05	16.40	16.21	17.35	17.86	18.56	18.89	18.78	18.90	18.85
25	16.53	16.06	16.00	16.44	16.27	17.37	17.87	18.57	18.91	18.81	18.90	18.87
26	16.41	16.02	15.99	16.46	16.34	17.37	17.88	18.57	18.92	18.83	18.90	18.86
27	16.32	16.04	16.01	16.45	16.37	17.39	17.91	18.56	18.92	18.83	18.90	18.84
28	16.22	16.00	16.02	16.47	16.43	17.41	17.93	18.56	18.91	18.84	18.90	18.84
29	16.19	---	16.03	16.49	16.47	17.44	17.95	18.58	18.90	18.84	18.92	18.86
30	16.20	---	16.05	16.47	16.51	17.46	17.97	18.59	18.87	18.84	19.00	18.86
31	16.21	---	16.09	---	16.54	---	17.99	18.63	---	18.85	---	18.86
MEAN	16.90	16.17	16.13	16.24	16.20	17.09	17.75	18.37	18.78	18.79	18.91	18.94
MAX	17.50	16.30	16.26	16.49	16.54	17.46	17.99	18.63	18.92	18.85	19.00	19.02
MIN	16.19	16.00	15.99	16.02	16.03	16.57	17.50	18.02	18.65	18.70	18.80	18.84

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(Continued from previous page)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 2000
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	18.86	18.25	17.88	17.61	17.34	18.12	19.00	19.62	19.98	20.08	20.49	20.60
2	18.86	18.24	17.89	17.60	17.33	18.15	19.03	19.63	19.99	20.09	20.49	20.60
3	18.86	18.19	17.91	17.56	17.34	18.17	19.06	19.64	19.99	20.10	20.49	20.63
4	18.85	18.17	17.91	17.54	17.36	18.18	19.09	19.65	19.99	20.10	20.48	20.64
5	18.86	18.18	17.94	17.61	17.37	18.18	19.08	19.66	19.99	20.12	20.50	20.64
6	18.88	18.18	17.98	17.60	17.39	18.20	19.10	19.68	20.00	20.13	20.52	20.64
7	18.86	18.17	18.00	17.60	17.40	18.27	19.12	19.69	20.00	20.16	20.51	20.64
8	18.87	18.17	18.01	17.59	17.43	18.29	19.15	19.70	20.01	20.19	20.50	20.63
9	18.83	18.16	18.01	17.65	17.45	18.31	19.17	19.71	20.02	20.21	20.48	20.64
10	18.73	18.15	18.04	17.66	17.48	18.35	19.20	19.72	20.03	20.23	20.49	20.65
11	18.66	18.15	18.04	17.66	17.54	18.37	19.22	19.73	20.03	20.24	20.52	20.63
12	18.64	18.15	18.06	17.66	17.57	18.41	19.24	19.75	20.05	20.25	20.53	20.63
13	18.59	18.08	18.11	17.70	17.59	18.45	19.24	19.76	20.06	20.25	20.53	20.68
14	18.64	18.00	18.12	17.65	17.66	18.49	19.27	19.78	20.07	20.26	20.53	20.61
15	18.64	17.97	18.13	17.59	17.72	18.51	19.31	19.80	20.09	20.27	20.54	20.61
16	18.60	17.93	18.11	17.52	17.75	18.53	19.34	19.81	20.12	20.27	20.54	20.60
17	18.61	17.92	18.03	17.47	17.78	18.57	19.37	19.82	20.14	20.27	20.52	20.57
18	18.59	17.88	18.03	17.43	17.80	18.60	19.39	19.83	20.14	20.27	20.54	20.60
19	18.55	17.84	17.98	17.41	17.84	18.63	19.41	19.83	20.13	20.29	20.54	20.59
20	18.52	17.86	17.88	17.39	17.87	18.65	19.44	19.85	20.13	20.30	20.53	20.62
21	18.51	17.87	17.74	17.35	17.88	18.68	19.47	19.86	20.12	20.30	20.55	20.63
22	18.50	17.86	17.66	17.37	17.88	18.71	19.47	19.88	20.13	20.31	20.58	20.63
23	18.45	17.86	17.62	17.38	17.90	18.75	19.49	19.90	20.12	20.32	20.58	20.66
24	18.41	17.85	17.58	17.37	17.91	18.79	19.50	19.91	20.09	20.34	20.58	20.66
25	18.38	17.85	17.55	17.36	17.95	18.83	19.51	19.91	20.08	20.34	20.55	20.67
26	18.40	17.86	17.53	17.37	18.00	18.86	19.54	19.92	20.08	20.35	20.51	20.69
27	18.42	17.85	17.50	17.38	18.02	18.89	19.56	19.94	20.08	20.36	20.52	20.68
28	18.42	17.86	17.51	17.39	18.01	18.91	19.58	19.95	20.08	20.38	20.53	20.67
29	18.41	17.89	17.58	17.35	18.04	18.93	19.58	19.96	20.09	20.41	20.54	20.68
30	18.34	---	17.56	17.34	18.08	18.97	19.59	19.97	20.09	20.45	20.58	20.69
31	18.29	---	17.58	---	18.10	---	19.60	19.97	---	20.47	---	20.71
MEAN	18.61	18.01	17.85	17.50	17.70	18.52	19.33	19.80	20.06	20.26	20.53	20.64
MAX	18.88	18.25	18.13	17.70	18.10	18.97	19.60	19.97	20.14	20.47	20.58	20.71
MIN	18.29	17.84	17.50	17.34	17.33	18.12	19.00	19.62	19.98	20.08	20.48	20.57

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
APPROVED
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 2001
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	20.71	20.51	20.09	19.05	19.25	19.88	20.52	20.92	21.28	21.65	22.04	22.26
2	20.71	20.51	20.09	19.06	19.26	19.88	20.54	20.95	21.28	21.67	22.04	22.28
3	20.72	20.53	20.06	19.01	19.30	19.92	20.56	20.96	21.29	21.67	22.02	22.30
4	20.73	20.54	20.00	18.99	19.34	19.94	20.58	20.97	21.29	21.68	22.05	22.32
5	20.72	20.53	19.95	18.98	19.35	19.96	20.59	20.99	21.31	21.69	22.07	22.33
6	20.72	20.54	19.94	18.96	19.38	19.98	20.61	21.01	21.33	21.70	22.11	22.32
7	20.72	20.55	19.91	18.96	19.42	19.99	20.63	21.02	21.35	21.73	22.12	22.32
8	20.71	20.55	19.89	18.96	19.43	20.01	20.63	21.04	21.37	21.76	22.12	22.32
9	20.71	20.55	19.87	18.95	19.44	20.04	20.63	21.06	21.38	21.77	22.13	22.35
10	20.73	20.54	19.86	18.95	19.46	20.07	20.64	21.07	21.38	21.78	22.14	22.36
11	20.74	20.56	19.85	18.96	19.50	20.09	20.66	21.08	21.40	21.78	22.15	22.32
12	20.74	20.56	19.83	18.96	19.53	20.11	20.69	21.08	21.43	21.77	22.16	22.30
13	20.74	20.53	19.79	18.96	19.57	20.13	20.71	21.09	21.45	21.77	22.18	22.29
14	20.74	20.51	19.81	18.97	19.62	20.16	20.72	21.10	21.45	21.78	22.19	22.28
15	20.73	20.50	19.76	18.96	19.62	20.18	20.75	21.11	21.47	21.81	22.20	22.29
16	20.74	20.50	19.69	18.98	19.63	20.18	20.77	21.11	21.49	21.83	22.20	22.31
17	20.74	20.45	19.66	19.02	19.63	20.20	20.78	21.12	21.50	21.87	22.20	22.31
18	20.74	20.38	19.67	19.06	19.64	20.23	20.79	21.12	21.52	21.88	22.21	22.29
19	20.70	20.36	19.68	19.08	19.68	20.26	20.79	21.13	21.53	21.88	22.21	22.29
20	20.61	20.32	19.64	19.09	19.69	20.28	20.80	21.15	21.51	21.89	22.23	22.30
21	20.54	20.27	19.54	19.09	19.70	20.29	20.83	21.17	21.52	21.90	22.25	22.33
22	20.53	20.28	19.50	19.10	19.71	20.31	20.86	21.18	21.53	21.90	22.27	22.34
23	20.52	20.25	19.47	19.10	19.74	20.32	20.86	21.20	21.55	21.90	22.26	22.33
24	20.51	20.24	19.45	19.11	19.78	20.34	20.86	21.20	21.55	21.91	22.21	22.29
25	20.51	20.20	19.43	19.12	19.77	20.37	20.87	21.21	21.57	21.93	22.21	22.31
26	20.52	20.17	19.43	19.14	19.78	---	20.87	21.22	21.60	21.98	22.22	22.32
27	20.52	20.15	19.45	19.16	19.80	20.44	20.88	21.23	21.61	22.03	22.24	22.33
28	20.54	20.11	19.43	19.19	19.82	20.46	20.88	21.24	21.61	22.03	22.24	22.33
29	20.54	---	19.37	19.24	19.83	20.49	20.88	21.26	21.62	22.03	22.25	22.33
30	20.51	---	19.20	19.25	19.87	20.51	20.89	21.27	21.63	22.04	22.25	22.35
31	20.50	---	19.11	---	19.90	---	20.91	21.27	---	22.04	---	22.38
MEAN	20.65	20.42	19.69	19.05	19.59	---	20.74	21.11	21.46	21.84	22.17	22.32
MAX	20.74	20.56	20.09	19.25	19.90	---	20.91	21.27	21.63	22.04	22.27	22.38
MIN	20.50	20.11	19.11	18.95	19.25	---	20.52	20.92	21.28	21.65	22.02	22.26

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(*Continued from previous page*)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
WORKING
DD #1

Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 2002
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	22.41	---	21.42	20.94	21.37	22.04	22.68	23.06	23.04	23.11	22.21	20.97
2	22.44	21.41	---	20.95	21.38	22.06	22.69	23.08	23.00	23.12	22.18	20.96
3	22.40	21.40	21.29	20.94	21.41	22.10	22.70	23.10	22.98	23.12	22.18	20.95
4	22.40	21.41	21.29	20.98	21.44	22.13	22.72	23.11	22.98	23.12	22.15	21.02
5	22.39	21.45	21.28	20.98	21.44	22.16	22.75	23.13	22.98	23.14	22.13	20.85
6	22.36	21.44	21.26	21.01	21.46	22.18	22.77	23.15	23.00	23.16	22.05	20.76
7	22.32	21.37	21.25	21.03	21.47	22.20	22.79	23.17	23.02	23.17	22.01	20.65
8	22.33	21.33	21.24	21.02	21.48	22.23	22.80	23.19	23.04	23.19	21.97	20.58
9	22.33	21.30	21.23	21.01	21.50	22.26	22.82	23.20	23.05	23.19	21.92	20.56
10	22.31	21.25	21.25	21.01	21.54	22.29	22.84	23.21	23.07	23.19	21.87	20.49
11	22.31	21.24	21.26	21.03	21.55	22.31	22.84	23.22	23.09	23.17	21.85	20.40
12	22.32	21.24	---	21.04	21.55	22.35	22.86	23.23	23.12	23.10	21.72	20.33
13	22.33	21.23	---	21.03	21.57	22.36	22.87	23.24	23.14	23.05	21.56	20.18
14	22.35	21.25	21.19	21.04	21.61	22.37	22.87	23.25	23.14	23.03	21.47	20.05
15	22.35	21.24	21.19	21.06	21.66	22.40	22.88	23.25	23.13	23.01	21.40	20.01
16	22.37	21.22	21.18	21.08	21.68	22.43	22.90	23.24	23.10	22.92	21.30	19.96
17	22.37	21.24	21.17	21.10	21.68	22.45	22.92	23.25	23.09	22.79	21.12	19.95
18	22.36	21.27	21.14	21.11	21.69	22.47	22.94	23.26	23.09	22.72	21.07	19.94
19	22.34	21.28	21.12	21.13	21.74	22.48	22.96	23.28	23.10	22.67	20.98	19.87
20	22.22	---	21.09	21.14	21.76	22.51	22.98	23.30	23.11	22.64	20.92	19.76
21	22.12	21.25	21.06	21.15	21.78	22.53	22.99	23.31	23.14	22.62	20.85	19.74
22	22.07	21.27	21.07	21.18	21.82	22.55	23.00	23.31	23.15	22.60	20.85	19.70
23	21.97	21.28	21.06	21.23	21.86	22.56	23.00	23.31	23.17	22.59	20.88	19.69
24	21.80	21.31	21.04	21.26	21.88	22.58	23.00	23.32	23.19	22.58	20.88	19.56
25	21.67	21.33	21.01	21.26	21.89	22.60	23.00	23.32	23.21	22.58	20.86	19.39
26	21.54	21.31	20.98	21.30	21.92	22.60	23.00	23.29	23.21	22.57	20.85	19.39
27	21.49	21.35	20.97	21.31	21.94	22.61	22.99	23.24	23.15	22.56	20.87	19.32
28	21.45	21.40	20.98	21.30	21.96	22.62	22.99	23.21	23.12	22.55	20.89	19.28
29	---	---	20.97	21.33	21.99	22.64	23.01	23.19	23.11	22.51	20.88	19.27
30	21.40	---	20.96	21.37	22.01	22.67	23.04	23.16	23.11	22.37	20.86	19.25
31	21.39	---	20.94	---	22.02	---	23.06	23.11	---	22.27	---	19.22
MEAN	---	---	---	21.11	21.68	22.39	22.89	23.22	23.09	22.85	21.42	20.07
MAX	---	---	---	21.37	22.02	22.67	23.06	23.32	23.21	23.19	22.21	21.02
MIN	---	---	---	20.94	21.37	22.04	22.68	23.06	22.98	22.27	20.85	19.22

Table D-7. Original USGS data, Mocksville (NC-142), North Carolina

(Continued from previous page)

1 U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES

STATION NUMBER 355359080331701 DV-025 (NC-142) NR MOCKSVILLE, NC (SAPROLITE) SOURCE AGENCY USGS STATE 37 COUNTY 059
LATITUDE 355359 LONGITUDE 0803317 NAD27 WELL DEPTH 30.8 GEOLOGIC UNIT 000SPRL DATUM 835.00 NGVD29
Date Processed: 2003-08-21 12:02 By nelson
DD #1
Depth to water level, feet below land surface, CALENDAR YEAR JANUARY TO DECEMBER 2003
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	19.15	19.42	18.36	17.06	16.00	15.47	15.64	15.38	---	---	---	---
2	19.20	19.43	18.21	17.04	15.93	15.55	15.53	15.34	---	---	---	---
3	19.15	19.42	18.21	17.05	16.00	15.48	15.51	15.33	---	---	---	---
4	19.17	19.41	18.17	17.06	16.01	15.19	15.54	15.25	---	---	---	---
5	19.16	19.47	18.09	17.09	15.94	15.05	15.56	15.17	---	---	---	---
6	19.16	19.46	18.03	17.19	15.77	14.96	15.57	15.07	---	---	---	---
7	19.20	19.36	18.01	17.09	15.66	14.76	15.58	15.00	---	---	---	---
8	19.14	19.35	17.94	16.95	15.62	14.51	15.59	14.91	---	---	---	---
9	19.15	19.31	17.89	16.71	15.62	14.38	15.60	14.83	---	---	---	---
10	19.21	19.23	17.95	16.26	15.64	14.37	15.51	14.80	---	---	---	---
11	19.29	19.25	17.95	15.91	15.66	14.39	15.49	14.65	---	---	---	---
12	19.36	19.25	17.93	15.82	15.77	14.45	15.54	14.56	---	---	---	---
13	19.32	19.28	17.91	15.83	15.88	14.52	15.56	14.53	---	---	---	---
14	19.31	19.26	18.00	15.85	15.94	14.62	15.59	14.52	---	---	---	---
15	19.39	19.20	17.98	15.83	15.95	14.69	15.61	14.51	---	---	---	---
16	19.37	19.23	17.84	15.85	15.95	14.79	15.63	14.48	---	---	---	---
17	19.37	19.20	17.71	15.94	15.98	14.82	15.64	14.46	---	---	---	---
18	19.42	19.22	17.67	16.03	16.00	14.82	15.61	14.52	---	---	---	---
19	19.44	19.16	17.69	15.82	16.01	14.83	15.60	14.60	---	---	---	---
20	19.43	19.10	17.32	15.68	16.01	14.92	15.53	14.63	---	---	---	---
21	19.44	19.02	17.09	15.59	15.98	15.03	15.45	---	---	---	---	---
22	19.48	18.85	17.04	15.62	15.91	15.10	15.42	---	---	---	---	---
23	19.53	18.80	16.98	15.75	15.67	15.18	15.44	---	---	---	---	---
24	19.59	18.77	16.99	15.80	15.55	15.28	15.50	---	---	---	---	---
25	19.57	18.74	16.98	15.76	15.49	15.34	15.58	---	---	---	---	---
26	19.55	18.69	16.98	15.80	15.43	15.37	15.61	---	---	---	---	---
27	19.65	18.57	17.07	15.94	15.40	15.43	15.61	---	---	---	---	---
28	19.62	18.46	17.09	15.98	15.35	15.51	15.61	---	---	---	---	---
29	19.58	---	17.08	16.01	15.27	15.57	15.66	---	---	---	---	---
30	19.56	---	17.09	16.07	15.31	15.62	15.58	---	---	---	---	---
31	19.47	---	17.09	---	15.30	---	15.46	---	---	---	---	---
MEAN	19.37	19.14	17.62	16.21	15.74	15.00	15.56	---	---	---	---	---
MAX	19.65	19.47	18.36	17.19	16.01	15.62	15.66	---	---	---	---	---
MIN	19.14	18.46	16.98	15.59	15.27	14.37	15.42	---	---	---	---	---

APPENDIX E

Ground and Surface Water Sampling and Analysis Plan

Prepared for

Iredell County C&D Landfill, Phases 2&3
Statesville, North Carolina

MESCO Project Number: G01026.5

This report is included as an Appendix E part of the Site Hydrogeologic Study completed for Iredell County C&D Landfill, Phases 2&3.

Municipal Services Garner, NC — Engineering Company, P.A. Boone, NC

Municipal Engineering Services Company, P.A.
Garner and Boone, North Carolina

GROUND AND SURFACE WATER SAMPLING AND ANALYSIS PLAN

The objective of the Ground and Surface Water Sampling and Analysis Plan is to provide clear guidelines and procedures to be followed by field and laboratory personnel when obtaining and testing ground and surface water samples. Groundwater monitoring wells and a surface water monitoring location will be sampled at least once prior to acceptance of waste to provide background information on water quality. The monitoring wells, and the surface water monitoring location will be sampled semi-annually thereafter for the Appendix I list of constituents.

Water Quality Monitoring Summary

This monitoring plan consists of seven ground and surface water sampling points. The locations of five monitoring wells (MW-22, MW-23, MW-24, MW-1A and MW-1C) and two surface water monitoring points (SW-3 and SW-6). Several of the listed monitoring points are also part of the monitoring network for the adjacent landfill. As such, a sampling for this site must be scheduled in conjunction with the sampling for the adjacent landfill in order to avoid redundancy in collected samples.

Enclosed Plate A shows the locations of mentioned monitoring wells and surface water monitoring points. Monitoring well MW-22 is located approximately 200 feet east of the northeastern boundary of the Phase 2 unit. This well monitors a portion of the groundwater that flows through the northern part of the Phases 2 and 3. Monitoring well MW-23 is located approximately 600 feet from MW-22, and is almost at an equal distance from either the Phase 2 eastern border or the discharge stream located farther east. MW-23 monitors the groundwater migrating through the southern portion of the Phases 2 and 3. MW-24 is located near the southeastern boundary of the Phase 3 unit and slightly upgradient from the discharge stream. This well monitors the groundwater migrating through the extreme south of the Phase 3 before it discharges into the stream. MW-1A and MW-1C—a nested pair of monitoring wells—serve as the background monitoring wells for the Phase 2 and 3 units. Note that they are also the background wells for the adjacent Phase 1 C&D, Phase 1 MSW, and Phase 2 MSW landfills. Plate B shows a schematics of a typical monitoring well, but the geometry of actual monitoring wells may differ depending upon field conditions.

Surface water monitoring points SW-3 and SW-6 are located on the discharge stream east of the C&D Landfill. SW-3—formerly a background monitoring point prior to the development of the new phases—now serves as a downstream monitoring point to detect a potential contaminant migration from upstream or through the aquifer. SW-6, located near the spring south of the Phase 3, serves as the background monitoring point for the stream. Note that SW-6, in conjunction with MW-24, also serves to monitor for any potential leakage that might occur in the extreme southern portion of the Phase 3 unit. A permanent mark should be placed at these locations if ones are not already in place.

As briefly mentioned above, these monitoring wells and surface water monitoring points must be scheduled for sampling in conjunction with the monitoring wells and surface water monitoring points already in place for the adjacent C&D and MSW landfills. They should all be sampled preferentially within a 24-hour period. If this is not achievable, they may be sampled within a week period provided that water levels in the monitoring wells be measured within a 24-hour time-frame in order to be able to construct an accurate potentiometric map.

The goal of the sampling plan is to obtain the desired sample while neither adding nor subtracting any constituent to or from the sample or the monitoring well. The plan details described below, when followed, are considered adequate to eliminate any cross-contamination or contamination from external sources of the wells sampled. These guidelines are drawn, in part, directly from and are intended to be used in conjunction with the N.C. Water Quality Monitoring Guidance Document for Solid Waste Facilities (Guidance Document). Sampling procedures will be completed by guidelines set forth in the Water Quality Monitoring Plan.

Sampling Equipment

Groundwater samples will be obtained in the field using a laboratory-cleaned, stainless steel bailer. Each bailer will be cleaned in a laboratory controlled environment prior to sampling in accordance with the following steps.

① Completely disassemble bailer.

② Phosphate-free, laboratory grade soap and organic-free, distilled water wash.

③ Organic-free, deionized water rinse.

④ Isopropyl alcohol rinse.

⑤ Organic-free, deionized water rinse.

⑥ Air dry.

⑦ Wrap bailer in aluminum foil, shiny side out.

⑧ Wrap bailer in plastic.

In addition to a laboratory cleaned bailer for each well sampled, standard equipment necessary to conduct the sampling include: sample containers (including trip blanks and equipment blanks), a wide-mouth container, at least two 600-ft spools of 1/4-inch nylon rope, at least two boxes of latex gloves, one box of large plastic bags, temperature indicator, pH indicator, conductivity indicator, water level indicator, storage coolers, and ice. In case of emergency, supplies to clean bailers as described above may also be brought to the site. If the total depth of all wells to be sampled exceeds 1,200 feet, additional spools of rope will be obtained to complete the sampling. If the number of wells to be sampled exceeds one third of the number of pairs of gloves in stock,

additional boxes of gloves will be obtained. The bailers, wrapped in foil and plastic, will be transported between pieces of peaked foam rubber to prevent damage to the wrappings. Other equipment subject to damage and contamination will be transported in sealed, plastic bags. The water level indicator will be cleaned in accordance with Steps 2 and 3 described above prior to placement in a clean plastic bag.

Sample Containers

Ground and surface water monitoring will include organic and inorganic analyses as described in more detail below. Samples will be collected for the various analyses in the containers described below in the order listed.

① Each sample container will be labeled providing the following information: site name and county location, well identification number, parameters to be analyzed, preservative added, date and time of sampling, and initials of the sampler.

② Samples to be analyzed for organic content will be collected in four 40-ml glass vials with Teflon caps. The sample vials will be completely filled with no air left in the vials.

③ Samples to be analyzed for inorganic contamination will be collected next in a -quart/1-liter polyethylene container.

All sample containers will be obtained from an independent laboratory in a sterilized condition. Some of the containers will have a pre-measured amount of preservative in them as necessary. In this event, care will be taken not to rinse the container or allow the preservative to wash out during sampling.

Groundwater Sampling

Wells will be sampled from upgradient to downgradient or, when previous analytical data is available, from least contaminated to the most contaminated.

Preparation

A clean sheet of plastic should be placed around the well to provide a clean surface for sampling equipment. The depth to water will be determined using the water level indicator. Before storage and/or reuse, the water level indicator will be cleaned in accordance with Steps 2 and 3 described above and replaced in a clean plastic bag.

The total well depth read from the well tag and the measured depth to water will be used to compute the depth of water in the well. The total well depth will be measured and compared to the depth indicated on the well tag as a check for siltation or blockage at depth. Using the chart on Plate C, the volume of water in the well will be

determined. For example, if a two-inch well is 29 feet deep and has a measured depth to water of 10 feet, there are 19 feet of standing water or 3.3 gallons in the well. Each well will be purged three to five well volumes (quantity of water in the well), or until dry, prior to sampling. In the example, 10 gallons would be adequate. Purged water will be measured in 5-gallon buckets until the required amount is purged. Care will be taken not to bring the bailer into contact with the bucket during purging.

The EPA recommends that in addition to wells being purged a minimum of three (3) well volumes, the indicator parameters for temperature, specific conductance, and pH must have stabilized. The indicator parameters of pH, specific conductance, and temperature will be measured on purged and recovered monitoring wells before collecting samples. When three consecutive measurements are within 10%, temperature and specific conductance are considered stable and when three consecutive measurements are within 0.2 units, pH is considered stable.

All of the above information will be recorded on a field data sheet or a field log book and copies submitted to the Division of Waste Management with the analytical results.

All meters will be calibrated immediately prior to purging and sampling and those readings recorded in a field log book. The meters should be recalibrated at the end of each sampling event and those readings recorded in the log also. Entries will always include pre- and post- calibration readings as well as the model and serial number of the equipment and the date, time, and person performing the calibration(s). Two standards which bracket the average or suspected measurements for pH and specific conductance will be used at the site.

Based on the number of wells to be sampled and their proximity to each other, all the wells may be purged one after another with sampling to follow. In this manner, if a well is purged dry, it may be allowed to recharge prior to sampling.

Purging

After the amount of water to be purged from a well is determined, the equipment necessary for purging will be assembled at the well including rope, 5-gallon bucket, bailer, and gloves. With the wrapped bailer maintained in a stable, upright position, the top portion of aluminum foil will be pulled away exposing only the eyelet used for securing the rope to the bailer. After the rope has been secured to the bailer with gloved hands, the bailer will be suspended as the aluminum foil and plastic are removed. The gloved hand used to remove the aluminum foil and plastic will be considered contaminated and may not come into contact with the bailer or rope. The bailer will be lowered slowly into the well using the uncontaminated gloved hand that suspended the bailer, until the bailer contacts the bottom of the well. The rope will be cut to an adequate length and secured to prevent losing the bailer in the well. The gloves will be discarded and a new pair used during the purging.

In order not to allow the rope to touch the ground during purging, the rope will be gathered when raising the bailer either by gathering in loops in one hand or by the wind mill method. The wind mill method requires hooking the rope with alternating thumbs as the rope is pulled from the well. When purging deep wells (in excess of 40 feet), the ground around the well head may be covered with a clean plastic bag or sheet of plastic with a slit cut to allow the plastic to slide over the well head. This will be a separate sheet of plastic from the one used for the sampling equipment. The plastic will be placed over the sampler's boots to allow the rope to fall onto the plastic without contamination. Alternatively, the rope may be lowered into an open bag placed in a 5-gallon bucket beside the well head. In any case, the rope will not contact anything considered contaminated including ground, boots, dirtied plastic, etc.

If purging and sampling of a well is performed at separate times, the bailer will be left suspended in the well above the water table and the rope secured. The remaining rope will be doubled and grasped in a tight loop in one hand. With the free hand, the glove on the hand holding the rope will be removed by pulling it away from the hand and over the rope in an inside-out position until rope is encased in the glove. The rope will be transferred to the opposite hand and the procedure repeated to cover any portion of rope remaining uncovered. The glove-encased rope will be set on top of the well head until time to sample. Alternatively, the rope remaining after securing may be gathered in a tight loop and pushed into the 2-inch PVC well pipe and left. Even when sampling immediately follows purging, new gloves will be necessary.

Equipment Blank

Prior to sampling the wells, when using non-disposable bailers, an equipment blank will be prepared using a representative bailer. This procedure entails removing the top and bottom portions of the aluminum foil while sustaining the bailer in one hand, removing the lid of the bailer, filling the bailer with distilled water, and replacing the lid. The distilled water is then dispensed through the holes at the bottom of the bailer into the appropriately labeled equipment blank containers.

Sampling

Prior to sampling the wells, the necessary equipment will be assembled at the wells, including sampling jars, pH, conductivity, and temperature indicators, a thoroughly cleansed wide mouthed container, and a box of latex gloves.

With gloves on, the bailer will be lowered into the well slowly. To avoid releasing any volatiles from the groundwater, care will be exercised while the bailer is lowered so that it does not splash or smack the water surface. Once full, the bailer will be retrieved and containers filled in the order described above. The containers

will be filled by emptying the water through the hole at the bottom of the bailer. The VOC's will be topped off by collecting some of the groundwater in the cap and pouring it onto the samples contents to acquire the needed meniscus to eliminate air bubbles. The polyethylene containers will be filled and sealed with the cap, leaving an airspace at the top of about 1/2 inch. In addition to collecting the samples, water will be collected in the wide-mouth container for pH, temperature, and conductivity measurements. The pH, temperature, and conductivity indicators, and wide-mouth container will be rinsed with organic-free, deionized water after sampling each well and will be cleaned in accordance with Steps 2 and 3 described above at the completion of the project.

Following completion of the sampling, the containers placed in sealed plastic bags, including the equipment blank and trip blank, will be stored and transported on ice. The used latex gloves and rope will be discarded.

Surface Water Sampling

Surface water samples will be obtained from the location on Plate A. Actual sampling at the designated location for surface water samples will be done with consideration given to minimizing turbulence and aeration.

Surface water sample containers will be handled with gloves on, one hand near the base. When collecting surface water samples, sample containers will be dipped at location points with extreme caution in order to avoid contamination at the mouth of the container. The container will be pushed rapidly at an angle into the water, mouth up, and tilted towards the stream current to fill, so as not to lose any of the preservative into the surrounding water. If there is little current movement, the container will be moved slowly through the water laterally. During times of drought, if the water is not deep enough to allow filling of the container, a pool may be scooped out of the bottom of the stream to obtain a sample. The pool will be allowed to clear before sampling. Glass vial containers collected for organic analyses will be filled completely as described above. The VOC's will be topped off by collecting some of the surface water in the cap and pouring it onto the samples contents to acquire the needed meniscus to eliminate air bubbles. The polyethylene containers will be lifted from the water and sealed with the cap, leaving an airspace at the top of about 1/2 inch. The samples will be sealed in plastic bags, stored and transported on ice. In addition to collecting the samples, water will be collected in the wide-mouth container for pH, temperature, and conductivity measurements. The pH, temperature, and conductivity indicators, and wide-mouth container will be rinsed with organic-free, deionized water after sampling.

Sample Transport and Chain-of-Custody

Sample containers will be clearly labeled as the samples are obtained and stored on ice along with the equipment blanks and trip blanks. Trip blanks will remain in the condition they are received from the laboratory

and will not be opened or tampered with during the sampling. A chain-of-custody record will be completed for each day's samples, indicating the date and time, sample location, sample matrix (soil, water, etc.), and laboratory analyses to be conducted. In addition, a field sampling data sheet will be completed indicating the depth to water measured in each well sampled and the pH, temperature, and specific conductivity of the sample measured in the field.

Groundwater and Surface Water Analysis

Water samples obtained in the field will be maintained in the sample containers on ice and transported to an approved laboratory for analysis. If the individual transporting the samples is different from the individual that did the sampling, the chain of custody forms will be used to document the transfer of custody from the water sampler to the water transporter. When the water samples reach the laboratory, they will be transferred to a sample custodian who will sign the chain of custody documentation for receipt of the samples. Internal control of the water samples in the laboratory will be in accordance with QA/QC procedures for the laboratory. Copies of QA/QC manuals for approved laboratories are on file at the Division of Solid Waste.

Groundwater and surface water will be analyzed for the list of chemical constituents in Table E-1. In addition, practical quantitation limits (PQLs) for each of the constituents and a list of the equipment that will be used in the laboratory testing are presented in Table E-1. QA/QC procedures utilized during the testing will be in conformance with laboratory QA/QC manual.

Table E-1. Ground and surface water analysis methodology

Constituent	CAS Number[1]	Test Method	Equipment	PQL (ug/l)[2]
Arsenic	(Total)	EPA 7060[3]	GF/AA[4]	10
Barium	(Total)	EPA 6010	ICP[5]	500
Cadmium	(Total)	EPA 7131	GF/AA	1
Chromium	(Total)	EPA 7191	GF/AA	10
Lead	(Total)	EPA 7421	GF/AA	10
Mercury	(Total)	EPA 7470	GF/AA	1
Selenium	(Total)	EPA 7740	GF/AA	20
Silver	(Total)	EPA 7761	GF/AA	10
Acetone	67-64-1	EPA 8260	GC/MS[6]	100
Acrylonitrile	107-13-1	EPA 8260	GC/MS	200
Benzene	71-43-2	EPA 8260	GC/MS	5
Bromochloromethane	74-97-5	EPA 8260	GC/MS	5
Bromodichloromethane	75-27-4	EPA 8260	GC/MS	5
Bromoform	75-25-2	EPA 8260	GC/MS	5
Carbon disulfide	75-15-0	EPA 8260	GC/MS	100
Carbon tetrachloride	56-23-5	EPA 8260	GC/MS	10
Chlorobenzene	108-90-7	EPA 8260	GC/MS	5
Chloroethane	75-00-3	EPA 8260	GC/MS	10
Chloroform	67-66-3	EPA 8260	GC/MS	5
Dibromochloromethane	124-48-1	EPA 8260	GC/MS	5
1,2-Dibromo-3-chloropropane	96-12-8	EPA 8260	GC/MS	25
1,2-Dibromoethane	106-93-4	EPA 8260	GC/MS	5
1,2-Dichlorobenzene	95-50-1	EPA 8260	GC/MS	5
1,4-Dichlorobenzene	106-46-7	EPA 8260	GC/MS	5
trans-1,4-Dichloro-2-butene	110-57-6	EPA 8260	GC/MS	100
1,1-Dichloroethane	75-34-3	EPA 8260	GC/MS	5
1,2-Dichloroethane	107-06-2	EPA 8260	GC/MS	5
1,1-Dichloroethylene	75-35-4	EPA 8260	GC/MS	5
cis-1,2-Dichloroethylene	156-59-2	EPA 8260	GC/MS	5
trans-1,2-Dichloroethylene	156-60-5	EPA 8260	GC/MS	5
1,2-Dichloropropane	78-87-5	EPA 8260	GC/MS	5
cis-1,3-Dichloropropene	10061-01-5	EPA 8260	GC/MS	10
trans-1,3-Dichloropropene	10061-02-6	EPA 8260	GC/MS	10
Ethylbenzene	100-41-4	EPA 8260	GC/MS	5
2-Hexanone	591-78-6	EPA 8260	GC/MS	50
Methyl bromide	74-83-9	EPA 8260	GC/MS	10
Methyl chloride	74-87-3	EPA 8260	GC/MS	10
Methylene bromide	74-95-3	EPA 8260	GC/MS	10
Methylene chloride	75-09-2	EPA 8260	GC/MS	10
Methyl ethyl ketone	78-93-3	EPA 8260	GC/MS	100
Methyl iodide	74-88-4	EPA 8260	GC/MS	10
4-Methyl-2-pentanone	108-10-1	EPA 8260	GC/MS	100
Styrene	100-42-5	EPA 8260	GC/MS	10
1,1,1,2-Tetrachloroethane	630-20-6	EPA 8260	GC/MS	5
1,1,2,2-Tetrachloroethane	79-34-5	EPA 8260	GC/MS	5

(continued on next page)

(*continued from previous page*)

Constituent	CAS Number	Test Method	Equipment	PQL (ug/l)
Tetrachloroethylene	127-18-4	EPA 8260	GC/MS	5
Toluene	108-88-3	EPA 8260	GC/MS	5
1,1,1-Trichloroethane	71-55-6	EPA 8260	GC/MS	5
1,1,2-Trichloroethane	79-00-5	EPA 8260	GC/MS	5
Trichloroethylene	79-01-6	EPA 8260	GC/MS	5
Trichlorofluoromethane	75-69-4	EPA 8260	GC/MS	5
1,2,3-Trichloropropane	96-18-4	EPA 8260	GC/MS	15
Vinyl acetate	108-05-4	EPA 8260	GC/MS	50
Vinyl chloride	75-01-4	EPA 8260	GC/MS	10
Xylenes	(Total)	EPA 8260	GC/MS	5

[1]Excerpted from "40 CFR Ch. I (7-1-98 edition), Part 258, App. II".

[2]Chemical Abstracts Service registry number. Where "Total" is entered, all species in the groundwater that contain this element are included.

[3]Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in ground waters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions.

[4]Suggested methods refer to analytical procedure numbers used in EPA Report SW-846 "Test Methods for Evaluating Solid Waste", third edition, November 1986, as revised, December 1987.

[5]Graphite Furnace - Atomic Absorption Spectrophotometer

[6]Inductively Coupled Plasma - Atomic Emission Spectrophotometer

[7]Gas Chromatograph - Mass Spectrometer

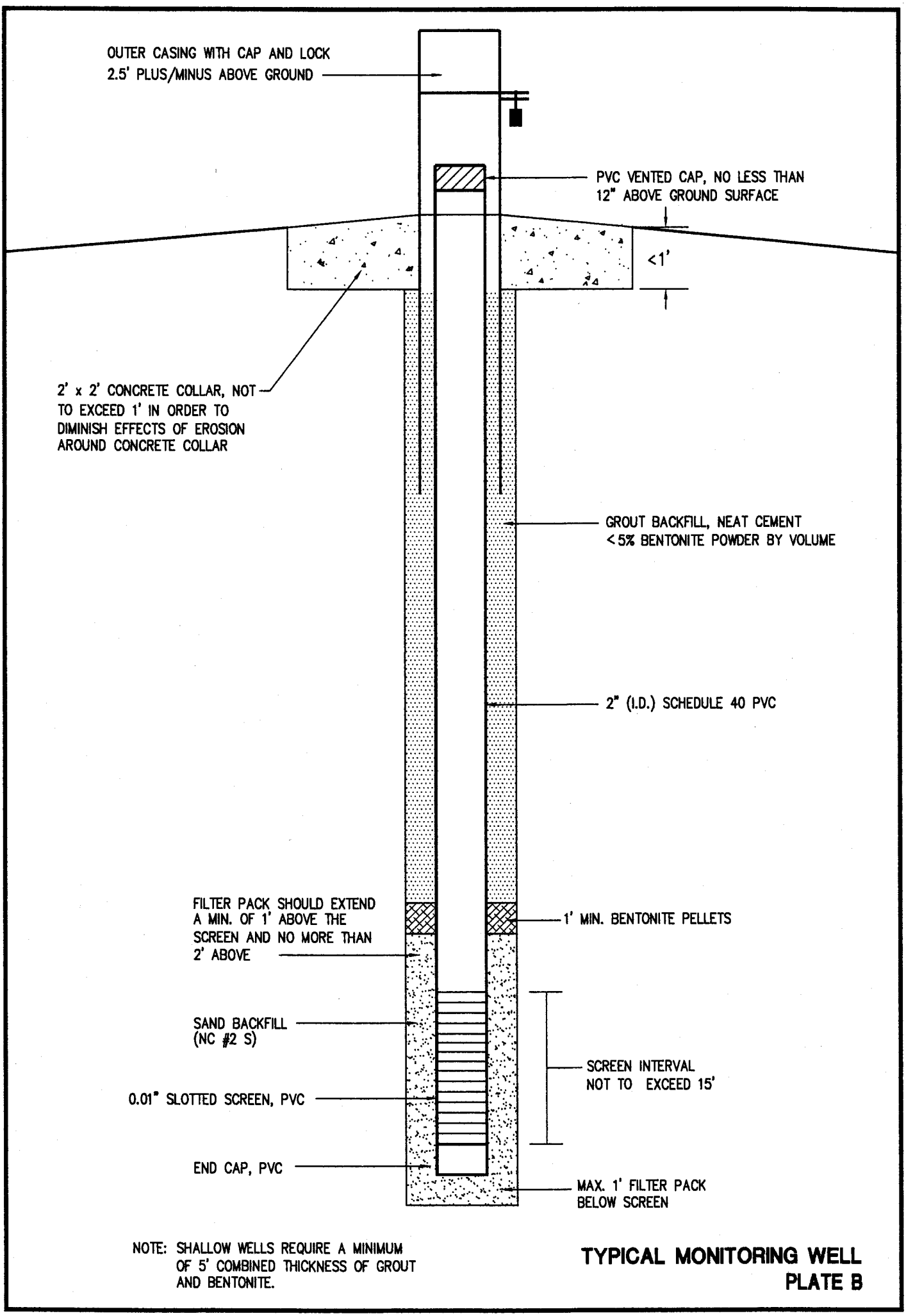
CLOSURE

This report, included as part of the Site Hydrogeologic Report for the proposed Iredell County Contruction and Demolition (C&D) Landfill Phases 2 and 3, completes the requirements as described in Rule .1623(b)(3). The ground and surface water monitoring plan is designed to be effective in the early detection of any possible release of hazardous constituents from the Iredell County C&D Landfill to the uppermost aquifer.

Respectfully submitted,
MUNICIPAL ENGINEERING SERVICES COMPANY, P.A.

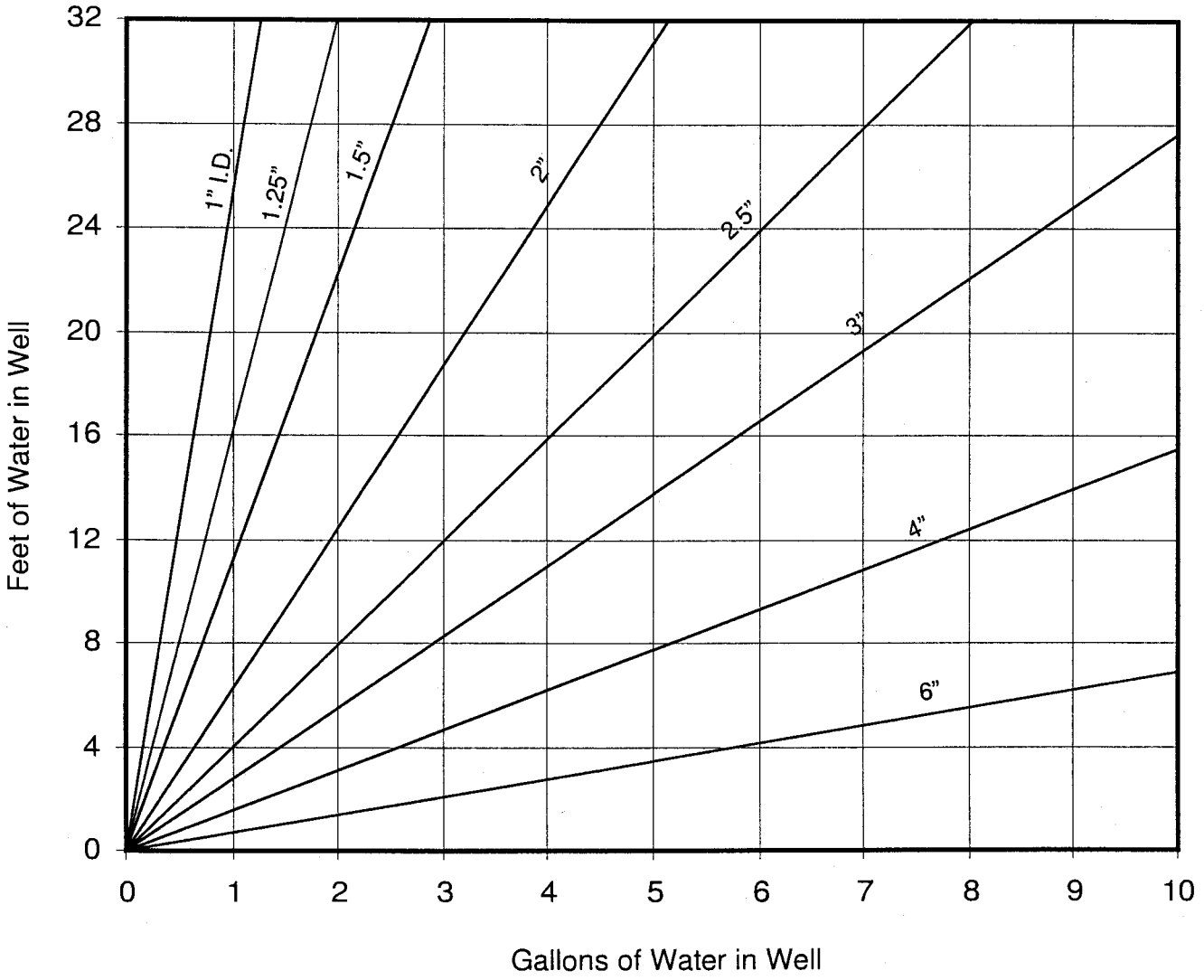
Kohei Yoshida
Hydrogeologist

Edward S. Custer, Jr., Ph.D., P.G.
Professional Geologist



NOTE: SHALLOW WELLS REQUIRE A MINIMUM OF 5' COMBINED THICKNESS OF GROUT AND BENTONITE.

TYPICAL MONITORING WELL
PLATE B



GRAPHICAL PLOT OF STANDING VOLUMES OF WATER

PLATE C

LEGEND:

- 875 EXISTING CONTOURS
- 875 PROPOSED CONTOURS
- PROPOSED LANDFILL AREA
- PHASE LINE
- PROPERTY LINE
- TDB EXISTING TEMPORARY DIVERSION BERM
- (W) EXISTING MONITORING WELL
- EXISTING PIEZOMETER
- BRANCH OR STREAM

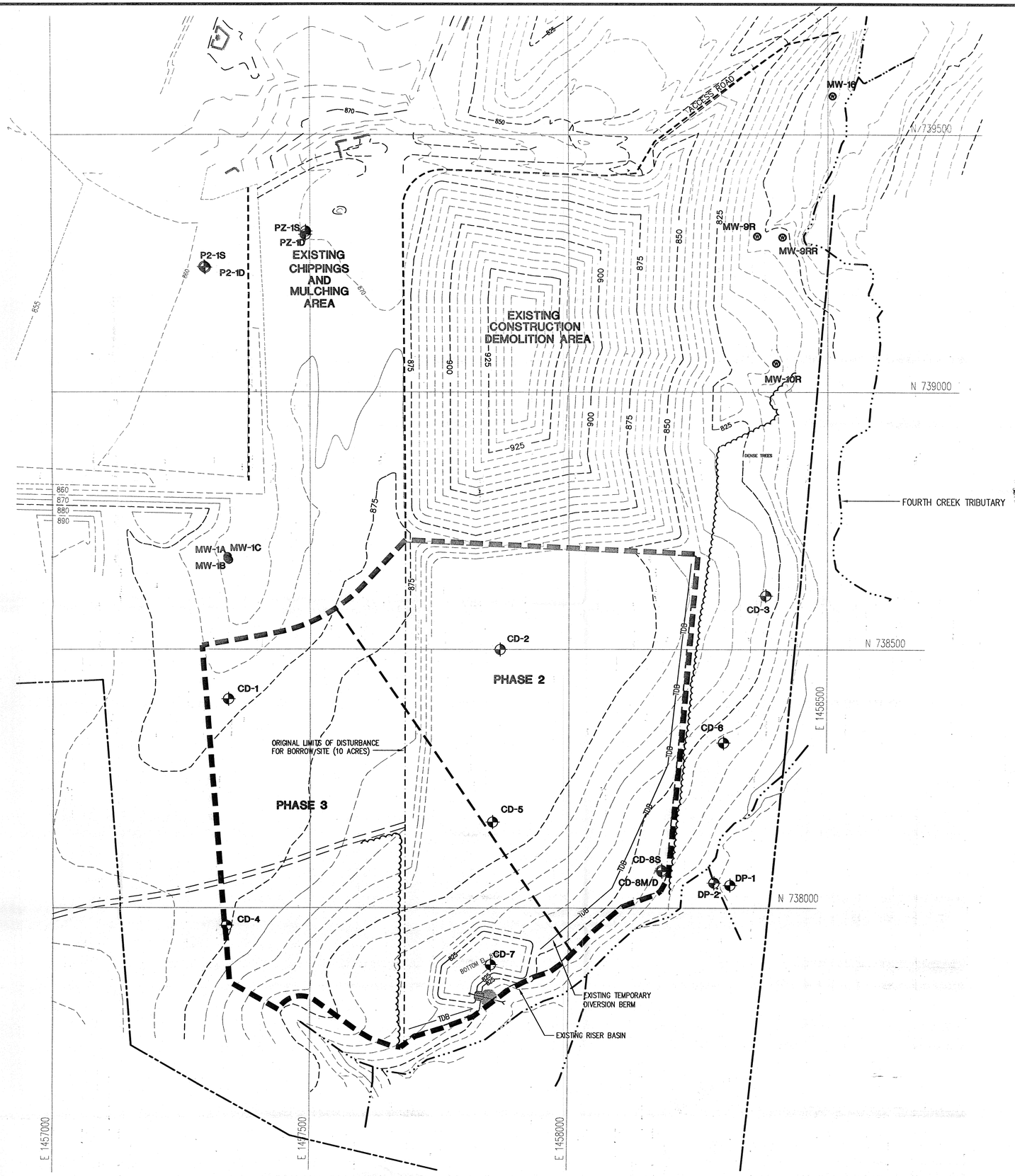


PLATE 1

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 348 BOONE, N.C. 28607 (828) 262-1707

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY NORTH CAROLINA

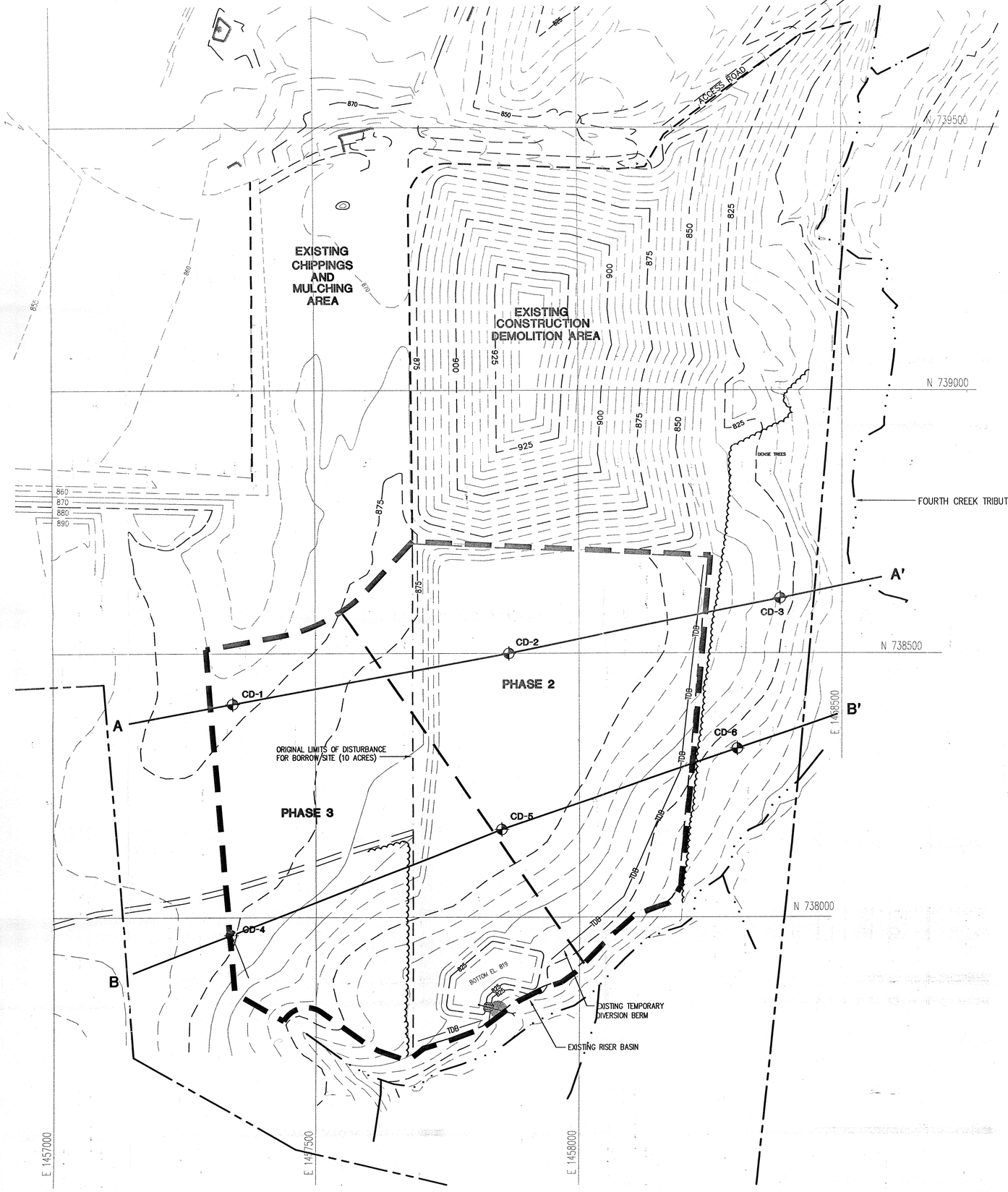
GENERAL SITE MAP

DATE	BY	REV.	DESCRIPTION

SCALE:	1" = 100'
DATE:	1-28-2004
DRWN. BY:	K. YOSHIDA
CHKD. BY:	K. YOSHIDA
PROJECT NUMBER	G01026.5
DRAWING NO.	SHEET NO. PLATE 1

LEGEND:

- 875 — EXISTING CONTOURS
- PROPOSED LANDFILL AREA
- PHASE LINE
- PROPERTY LINE
- TDB — EXISTING TEMPORARY DIVERSION BERM
- EXISTING PIEZOMETER
- BRANCH OR STREAM



Municipal Engineering Services Company, P.A.
P.O. BOX 848 BOONE, N.C. 28607 (828) 262-1767
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

CROSS SECTIONS

SCALE:	1" = 100'
DATE:	1-28-2004
DRWN. BY:	L. HAMPTON
CHKD. BY:	K. YOSHIDA
PROJECT NUMBER	G01026.5
DRAWING NO.	PLATE 4
SHEET NO.	

PLATE 4

LEGEND:

EXISTING GRADE

PROPOSED FILL

PROPOSED SUBGRADE

SEASONAL HIGH GROUNDWATER

SOIL TYPE LEGEND

SILT

SAND

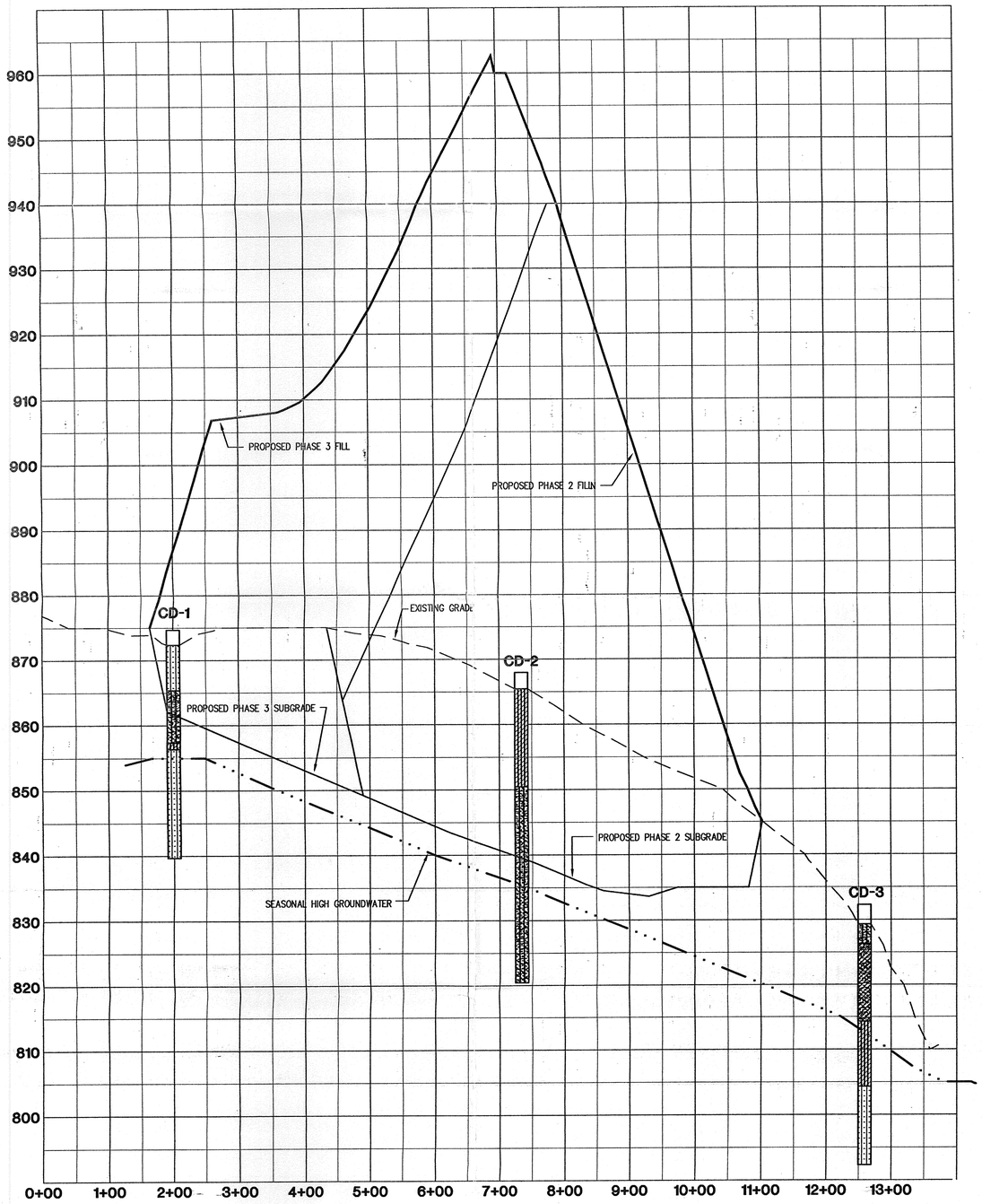
SANDY SILT

SILTY CLAY

SILTY SAND

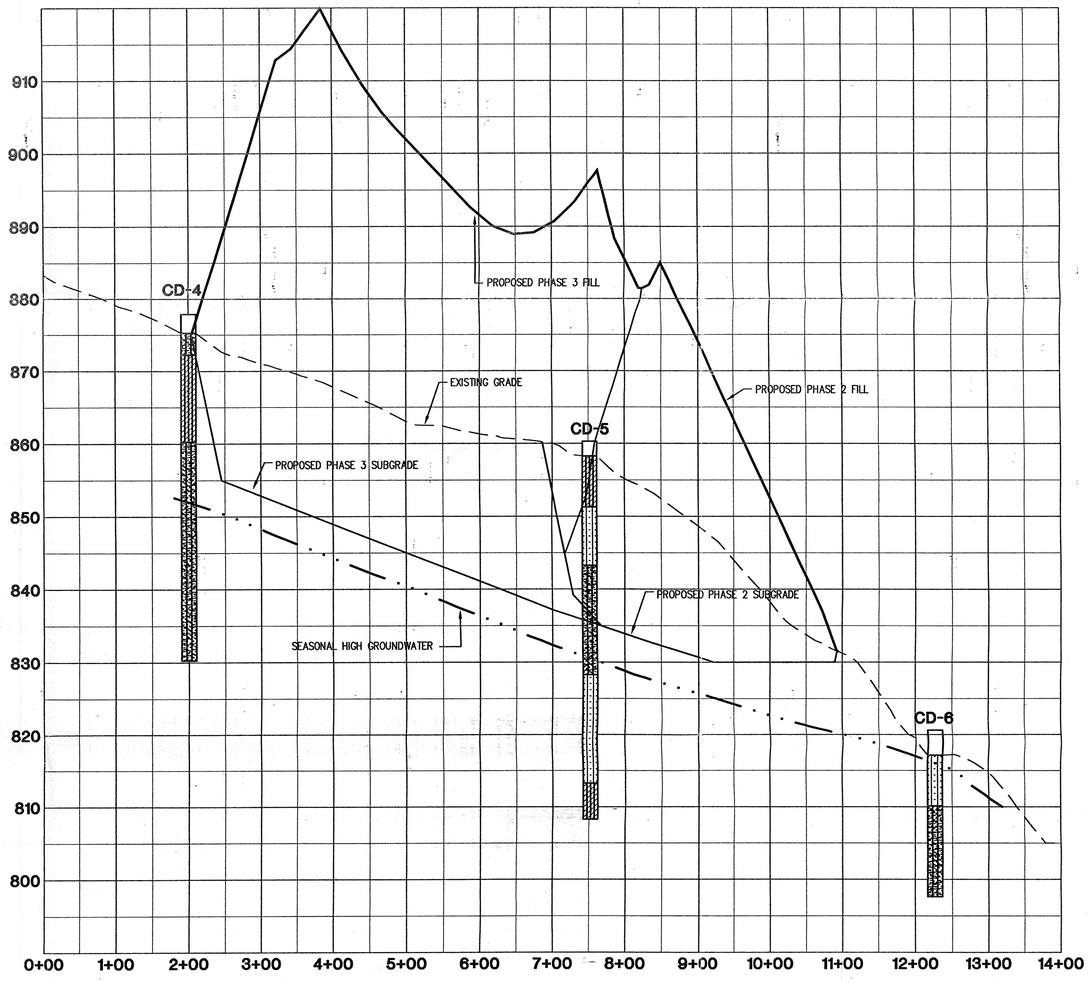
CLAYEY SILT

CLAYEY SAND



SECTION A-A'

SCALE: HORIZ.: 1" = 100'
VERT.: 1" = 10'



SECTION B-B'

SCALE: HORIZ.: 1" = 100'
VERT.: 1" = 10'

PLATE 4A

Municipal Engineering Services Company, P.A.
P.O. BOX 849 BOONE, N.C. 28607 (828) 262-1767
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION
01/29/04	LCH	1	REVISED SUBGRADE AND SEASONAL HIGH GROUNDWATER

SECTION A-A' AND SECTION B-B'

SCALE:	1" = 100'
DATE:	06/04/02
DRWN. BY:	L. HAMPTON
CHKD. BY:	K. YOSHIDA
PROJECT NUMBER	G01026
DRAWING NO.	CS
SHEET NO.	1 OF 1

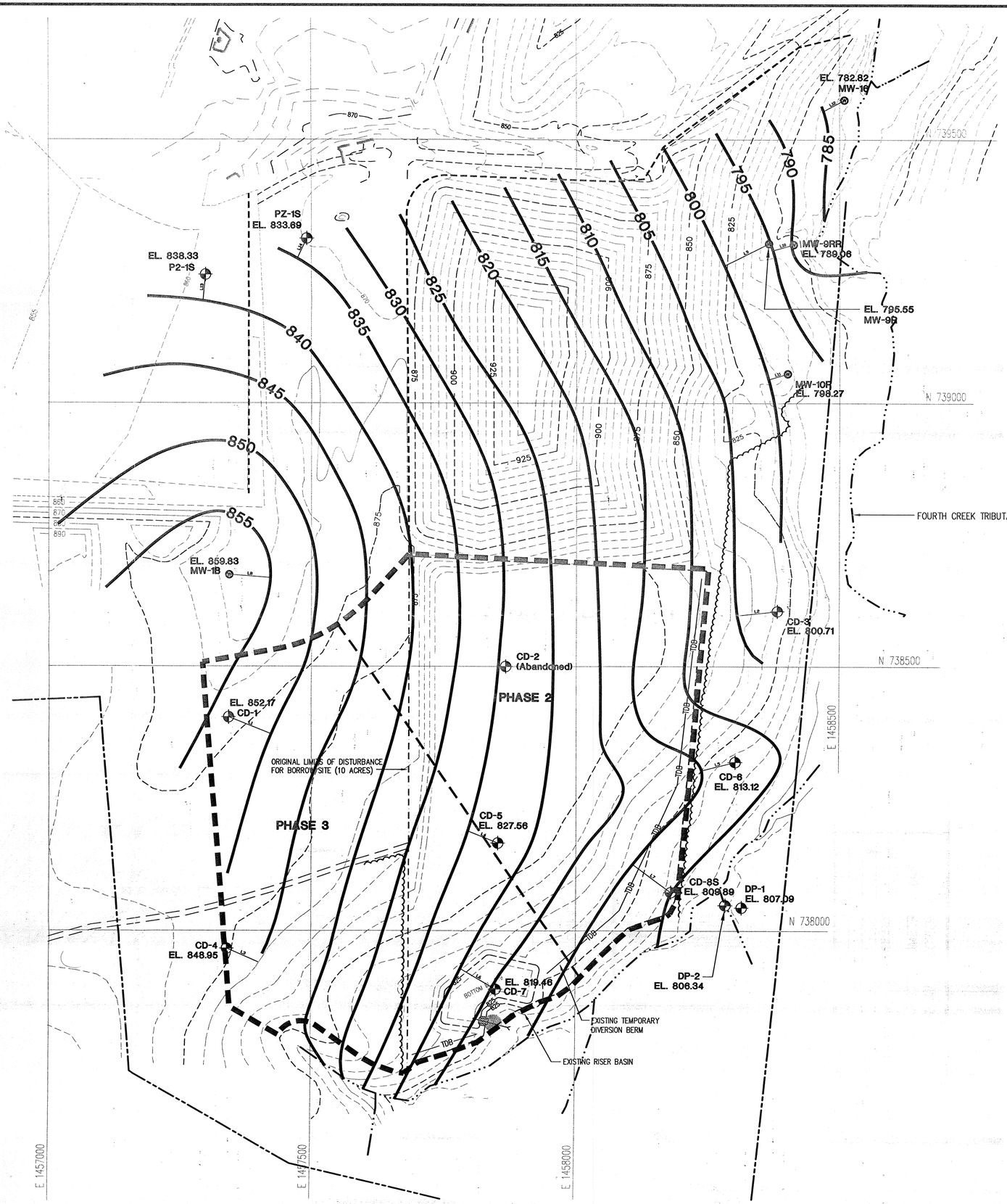
LEGEND:

- 875 EXISTING CONTOURS
- 875 PROPOSED CONTOURS
- PROPOSED LANDFILL AREA
- PHASE LINE
- PROPERTY LINE
- TDB EXISTING TEMPORARY DIVERSION BERM
- EXISTING MONITORING WELL
- EXISTING PIEZOMETER
- BRANCH OR STREAM

NOTE

1. POTENTIOMETRIC SURFACE MAP BASED ON DECEMBER 17, 2003 MEASUREMENT

2. NUMBERS SHOWN IN THIS PLATE ALL IN UNITS OF FEET UNLESS OTHERWISE INDICATED



FLOW DIRECTION TABLE		
LINE	LENGTH	BEARING
CD-1	87.78	S68°35'14"E
CD-3	77.25	N83°59'33"E
CD-4	66.01	S66°42'19"E
CD-5	61.16	S68°29'30"E
CD-6	64.87	N75°36'42"E
CD-7	77.94	S59°41'00"E
CD-8S	90.87	S53°50'12"E
MW-1B	79.40	S85°38'07"E
MW-9R	92.66	N63°42'47"E
MW-9RR	40.82	N74°49'05"E
MW-10R	37.22	N73°41'46"E
MW-16	45.15	N61°58'23"E
P2-1S	49.97	N06°22'28"E
PZ-1S	41.09	N25°01'33"E

PLATE 5

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, NC 27529 (919) 772-5393
P.O. BOX 549 BOONE, NC 28607 (828) 262-1707

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY
NORTH CAROLINA

SINGLE DAY POTENTIOMETRIC MAP WITH FLOW DIRECTIONS

DATE	BY	REV.	DESCRIPTION

SCALE: 1"=100'
DATE: 1-28-2004
DRWN. BY: K. YOSHIDA
CHKD. BY: K. YOSHIDA
PROJECT NUMBER G01026.5
DRAWING NO. PLATE 5
SHEET NO.

LEGEND:

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED LANDFILL AREA
- PHASE LINE
- PROPERTY LINE
- EXISTING TEMPORARY DIVERSION BERM
- EXISTING MONITORING WELL
- EXISTING PIEZOMETER
- ABANDONED MONITORING WELL
- BRANCH OR STREAM

NOTE

1. NUMBERS SHOWN IN THIS PLATE ALL IN UNITS OF FEET UNLESS OTHERWISE INDICATED
2. A PARENTHESIZED SEASONAL HIGH ELEVATION INTERPOLATED FROM CLOSEST NEIGHBORING NODES
3. CD-2, MW-9 AND MW-10 NO LONGER EXIST

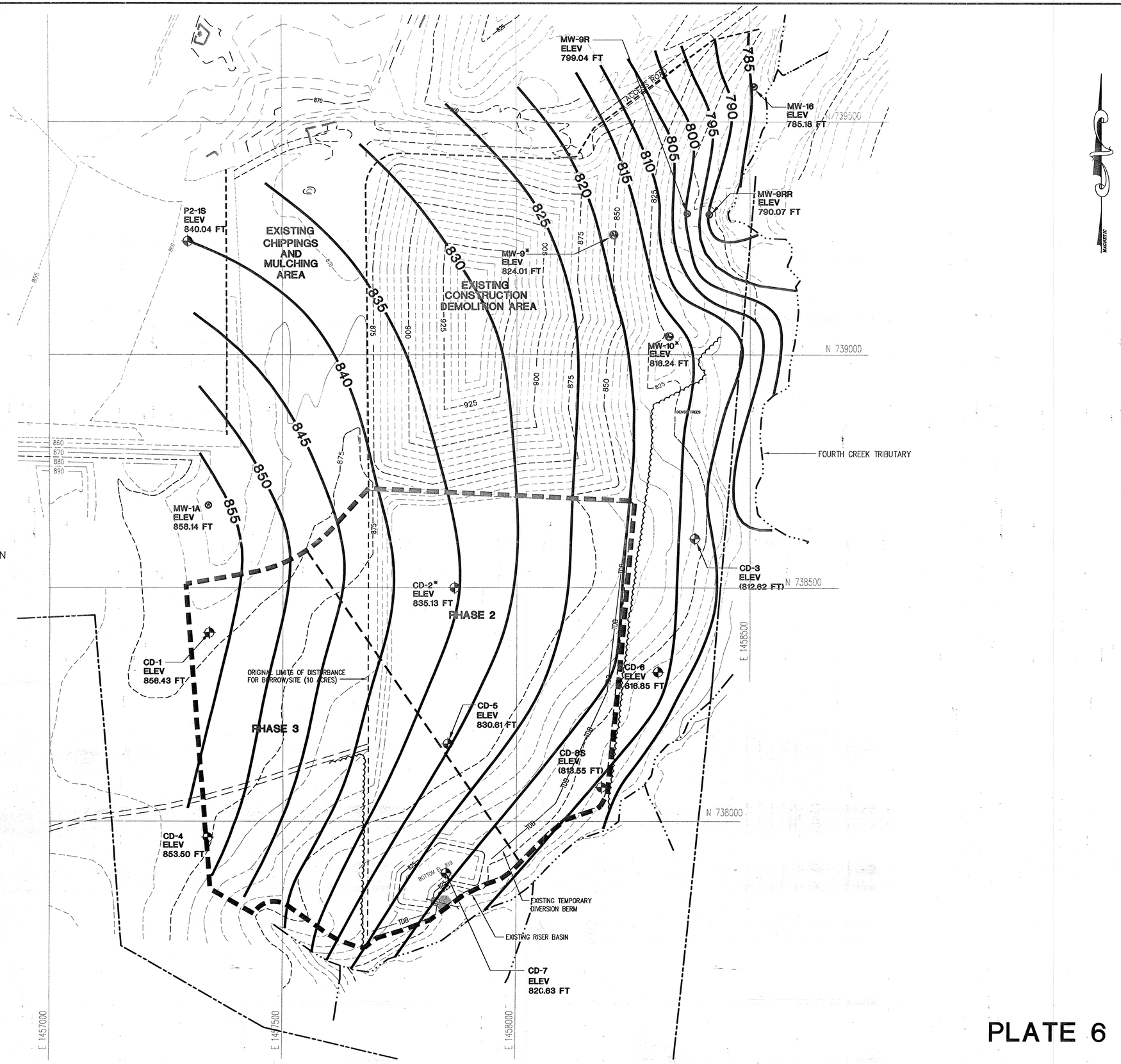


PLATE 6

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

SEASONAL HIGH GROUNDWATER MAP

SCALE: 1"=100"
DATE: 1-28-2004
DRWN. BY: K. YOSHIDA
CHKD. BY: K. YOSHIDA
PROJECT NUMBER G01026.5
DRAWING NO. PLATE 6
SHEET NO.

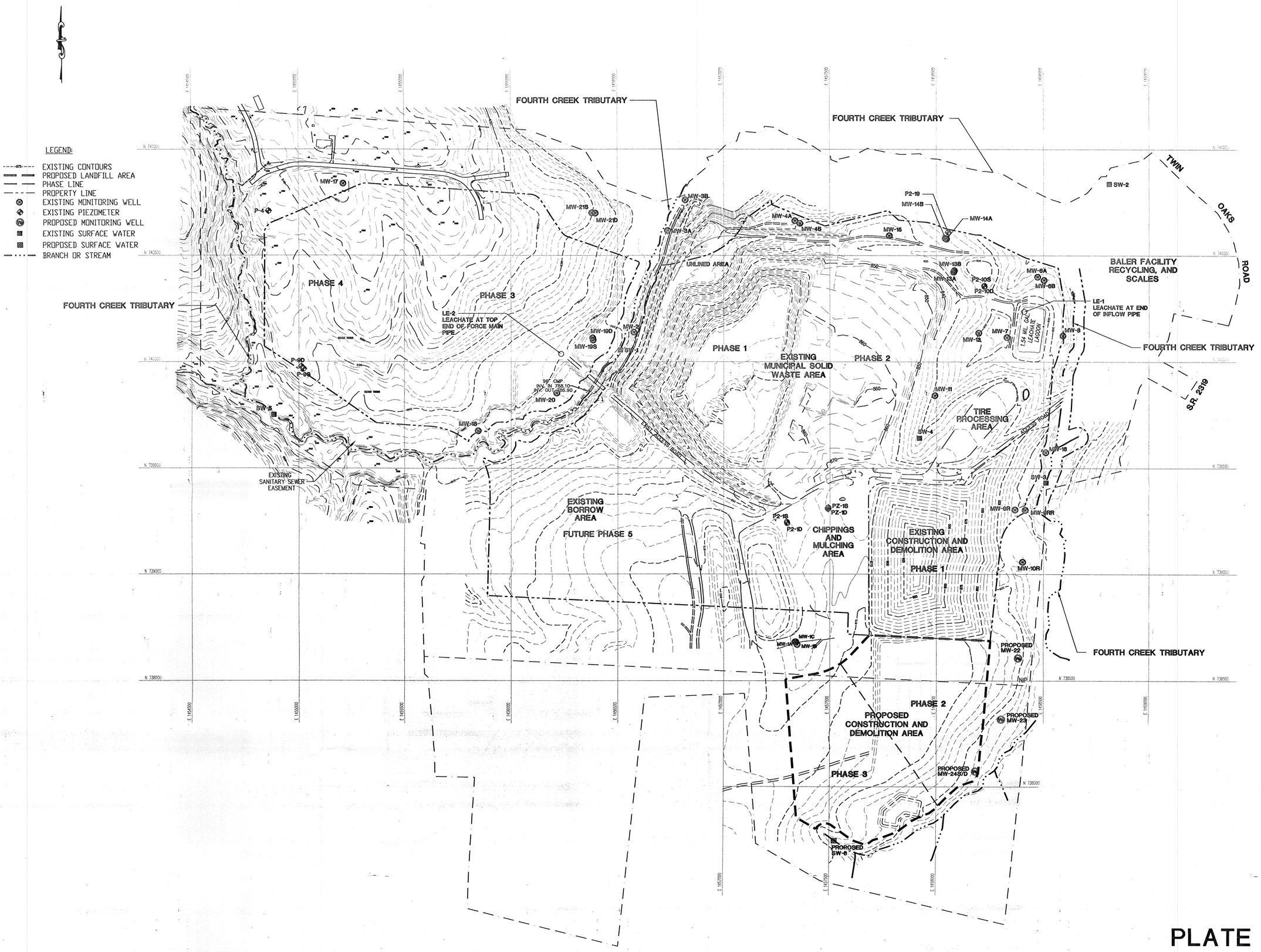


PLATE A

Municipal Engineering Services Company, P.A.
P.O. BOX 3449 BOONE, N.C. 28607 (828) 262-1707
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

PROPOSED MONITORING WELL AND SURFACE WATER LOCATIONS

SCALE:	1"=200'
DATE:	1-28-2004
DRWN. BY:	K. YOSHIDA
CHKD. BY:	K. YOSHIDA
PROJECT NUMBER	G01026.5
DRAWING NO.	PLATE A
SHEET NO.	

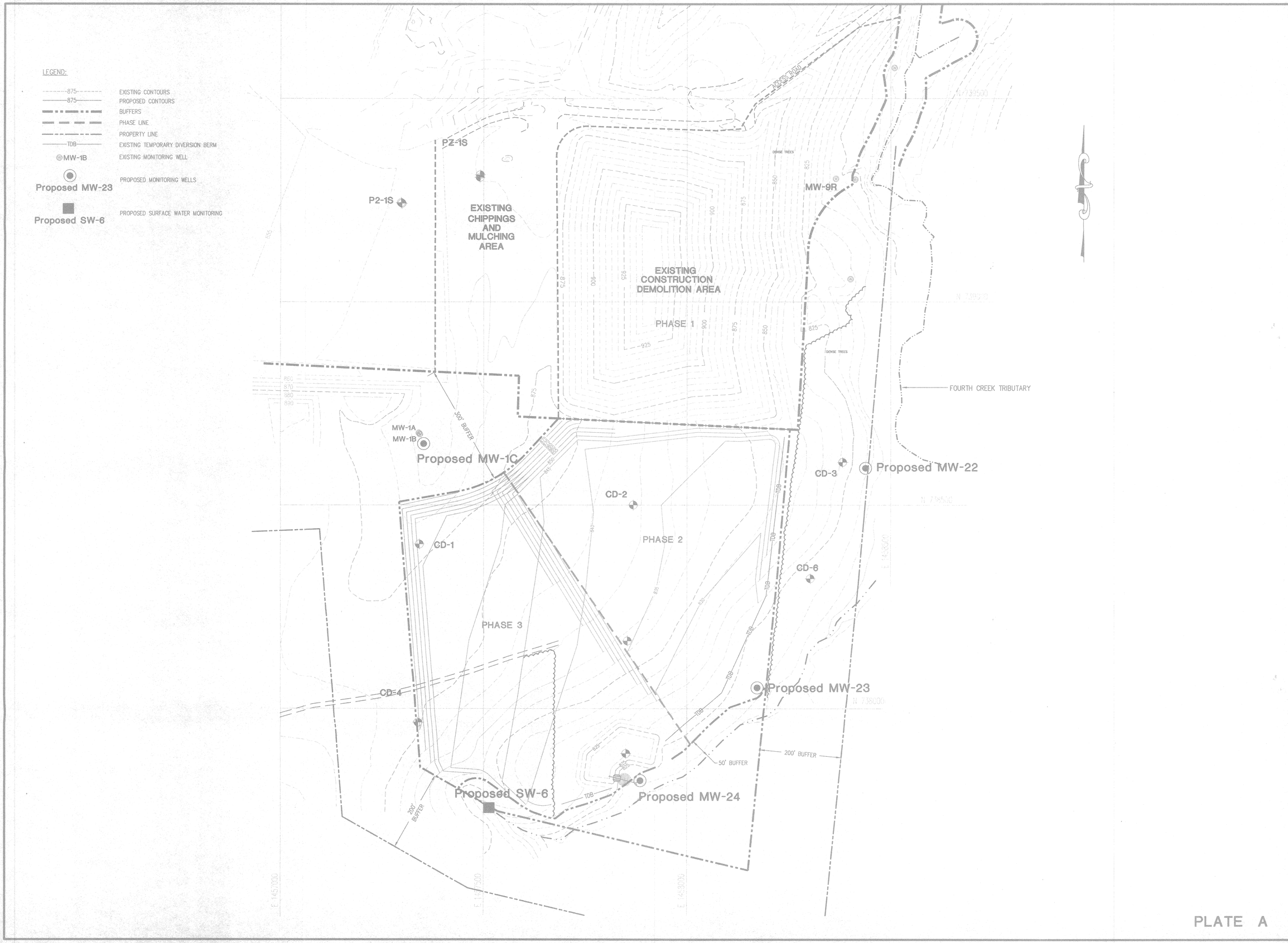


PLATE A

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529
P.O. BOX 349 BOONE, N.C. 28607

CONSTRUCTION AND DEMOLITION LANDFILL FACILITY
IREDELL COUNTY
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

PROPOSED MONITORING WELL AND SURFACE WATER LOCATIONS

SCALE: 1" = 100'
DATE: 06/04/02
DRWN. BY: L. HAMPTON
CHKD. BY: K. YOSHIDA
PROJECT NUMBER G01026
DRAWING NO. MW
SHEET NO. 1 OF 1

P:\SolidWaste\iredell c&d hydro\dwg\HYDRO\01026-MW.dwg Fri Jun 28 13:38:45 2002 LCH