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TRANSMITTAL OF THE DRAFT OPERABLE UNIT 5 SOUTH FIELD INJECTION TEST REPORT

12/20/95

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DOE-FN EPAS
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REPORT

Department of Energy
Fernald Environmental Management Project
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DEC 20 1995

DOE-0343-96

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Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF THE DRAFT OPERABLE UNIT 5 SOUTH FIELD INJECTION TEST REPORT

This correspondence serves to transmit to the U.S. Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) the Draft Operable Unit 5 (OU5) South Field Injection Test Report. The injection test took place during the week of October 8, 1995.

If you or members of your staffs have any questions regarding this transmittal, please contact Robert Janke at (513) 648-3124, or John Kappa at (513) 648-3149.

Sincerely,

Susan M Peter

for Johnny W. Reising
Fernald Remedial Action
Project Manager

FN:Kappa

Enclosure: As Stated

Recycled and Recyclable

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FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

OPERABLE UNIT 5

SOUTH FIELD INJECTION TEST REPORT

DECEMBER 1995

U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

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FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

OPERABLE UNIT 5

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INJECTION TEST REPORT

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U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

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1.0 INTRODUCTION

The final Record of Decision for Operable Unit 5 presents groundwater extraction and treatment as the selected remedy for restoring the Great Miami Aquifer. The Operable Unit 5 Feasibility Study (DOE 1995a) concluded that a 28-well base case extraction system pumping at a net maximum rate of 4000 gallons per minute (gpm) would be sufficient to restore the aquifer in an estimated 27-year time frame (Figure 1-1). As part of the selected remedy, the U.S. Department of Energy (DOE) agreed to continue evaluating the benefits of applying emerging or innovative technologies to enhance aquifer restoration. One such recognized technology is the injection of groundwater into the aquifer as a means of speeding the contaminant flushing process and shortening the total time needed to remediate the aquifer.

Although modeled groundwater remediation scenarios showed that extraction supplemented with injection shortens the time required to remediate the aquifer, a preliminary field test was needed to assess the implementability of injection at the Fernald Environmental Management Project (FEMP). By actually injecting water into the Great Miami Aquifer, logistics associated with delivery of the water could be evaluated and the physical impact of the injection process on aquifer properties and the chemical impact on the quality of the groundwater surrounding the injection well could be assessed.

This report presents the results of the South Field injection test that was conducted during October 1995 at the FEMP in southwestern Ohio (Figure 1-2) (DOE 1995b). The South Field injection test was funded by DOE's Office of Science and Technology (EM-50) and conducted by DOE and in situ leaching mining industry personnel. Participants included DOE-Fernald, DOE's MSE-Western Technology Office, Rio Algom Inc., and In-Situ Inc. Specific major objectives of the injection test included:

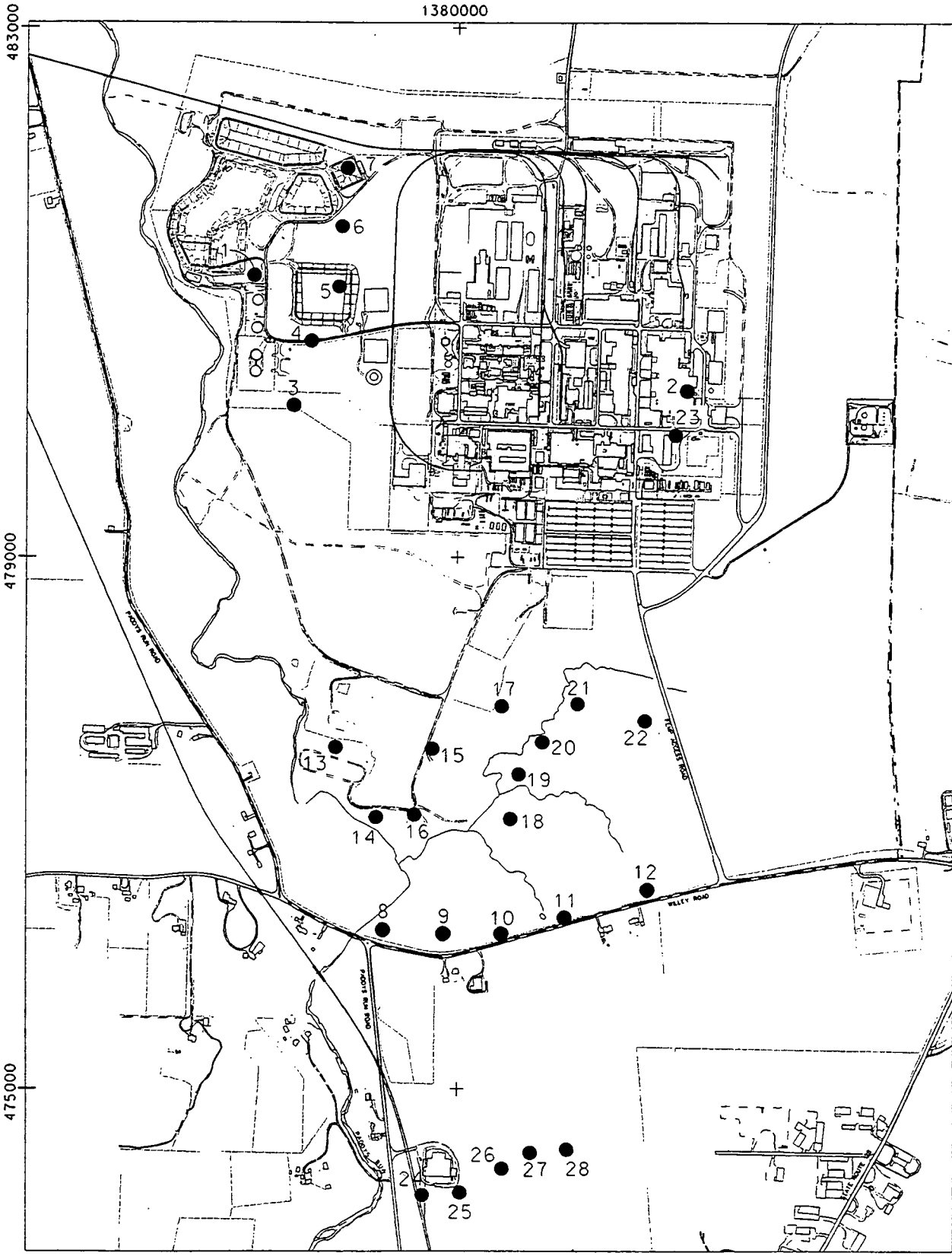
- Determining if injection using Great Miami Aquifer water (with total uranium concentration below 20 μg/L) will result in any plugging problems
- Determining how much the water table of the Great Miami Aquifer will rise given several different injection rates
- Comparing actual water level rises to results predicted by groundwater modeling

- Determining if a sustainable injection rate can be maintained that is close to the rate currently being modeled (i.e., between 200 and 500 gpm)
- Identifying mechanical concerns associated with actual injection operations.

Water levels were monitored during the injection process to document the resistance to flow exhibited in the injection well and to note if the resistance was stable, increasing or decreasing. Resistance to flow is defined as the difference between static water level and the mounded water level produced by injection within the injection well. An increase in the resistance to flow (injection) is an indication that aquifer plugging is occurring. Water quality was monitored throughout the injection process to document chemical changes to the native groundwater in the South Field area due to the injection process.

Results of the South Field injection test indicate that injection can be a viable supplement to extraction for the remediation of the Great Miami Aquifer, based upon the demonstrated ability of the aquifer to receive injected water. However, as is explained in Section 6.3, the issue of mixing waters with similar chemistry and the precipitation of iron hydroxide and plugging within the injection well and the surrounding aquifer needs to be further evaluated by an additional injection test. Information gathered during this test will be used to design a field-scale demonstration of injection for the Great Miami Aquifer. The field-scale demonstration will avoid the plugging problems experienced in this injection test by using treated water.

/USR/ERMA1/CRU5/DGN/INJECTION/EXTWELL.DGN FER OU5 8/13/95 STATE PLANAR COORDINATE SYSTEM 1927



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FEMP BOUNDARY

EXTRACTION WELL

SCALE

1100 550 0 1100 FEET

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FIGURE 1-1. 28-WELL BASE CASE EXTRACTION SYSTEM

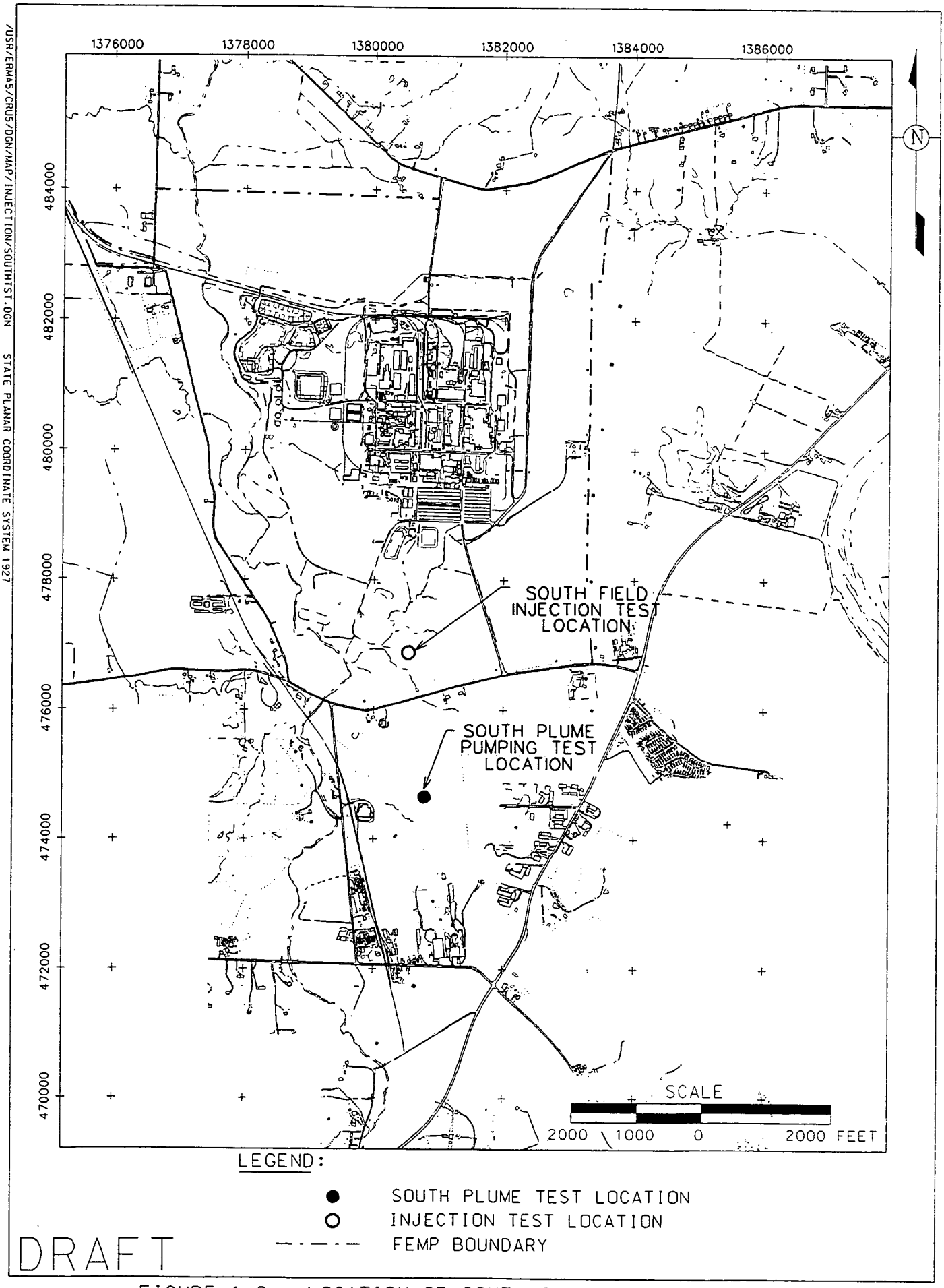

FIGURE 1-2. LOCATION OF SOUTH FIELD INJECTION TEST

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Section 2.0

2.0 THE INJECTION PROCESS

Groundwater injection is being evaluated at the FEMP as a supporting technology for remediation of the Great Miami Aquifer. Groundwater remediation that includes the injection of treated groundwater has been conceptually designed and evaluated using a computer model. Various injection rates, screen depths, and wellfield patterns have been incorporated into the scenarios. Major considerations in the design of the different model scenarios include site remediation activities, wellfield patterns, treatment capacities, regulatory requirements, geochemical conditions, and extraction and injection rates. The South Field injection test focuses on the consideration of injection rates, and mechanical issues associated with the delivery of injection water (e.g., gravity injection versus pressurized injection, and how to prevent water from cascading down the injection well).

2.1 EXPECTED BENEFITS

Injection of groundwater or treated water into the Great Miami Aquifer during remediation will serve to: 1) improve the extraction of contaminants by pushing the contamination to extraction wells; 2) provide better hydraulic control of the contaminant plumes; and 3) help to control the areal extent of the net drawdown resulting from the extraction process. The result should be a more efficient system that will remediate the Great Miami Aquifer in a shorter period of time than could be accomplished with extraction alone.

2.2 ACHIEVABLE INJECTION RATE

Determining if injection can be used to improve a remediation process involves an understanding of what the hydraulically achievable injection rate for the aquifer is. Knowing how much water can be supplied to a well for injection is one consideration, but more important is knowing the injection rate at which the aquifer can easily transmit water away from the injection well without excessive mounding in the injection well or surrounding aquifer.

The initial acceptance of injection water by the aquifer is affected by whether or not the aquifer is confined or unconfined, has low or high permeability, and is consolidated or unconsolidated. The most dramatic impact could result if water is injected into the aquifer at a faster rate than the aquifer is able to transmit water out from the well. Mounding inside the well could occur and cause the water to overflow onto the ground surface. Another possibility is that injection could cause the water

table in the aquifer around the injection well to rise to a point where it eventually intersects the ground surface and creates a seep.

As is explained in Section 3, the Great Miami Aquifer is unconfined and has a relatively high permeability. The water table in the South Field area where injection is being tested is approximately 50 feet below the ground surface which includes approximately 30 feet of unsaturated Great Miami Aquifer sand and gravel. These characteristics make the Great Miami Aquifer a good candidate for injection. The Great Miami Aquifer should be able to readily accept high rates of injection without creating adverse water mounding problems in either the injection well or surrounding aquifer.

2.3 SUSTAINABILITY OF AN INJECTION RATE

Of concern to the injection process is the ability of the aquifer to sustain a selected injection rate. The main problem associated with sustaining an injection rate is referred to as "plugging" or "clogging" at the point of injection. Plugging or clogging (referred to hereinafter as plugging) is defined according to Pyne as "the increasing resistance to flow" (Pyne 1995, pg. 111). For the purpose of this test and report, flow into and away from the injection well is synonymous with injection. The primary sites for plugging during injection are the screen, gravel pack, the borehole wall, and the formation immediately surrounding the borehole wall. Plugging changes the hydraulic characteristics of the well and surrounding aquifer material, resulting in a head buildup. Plugging during injection can result in a decreasing injection rate or the need to continually increase the injection flow pressure to maintain a constant injection rate. Some plugging can remain even after the well is redeveloped and is referred to as residual plugging. Plugging lowers the efficiency of the injection operation and needs to be avoided or minimized.

The following discussion of plugging processes follows Pyne (1995, pgs. 112 to 118). Plugging processes include: 1) entrained air and gas binding; 2) deposition of total suspended solids (TSS) from the injection water; 3) biological growth; 4) particle rearrangement in the aquifer material adjacent to the injection well; and 5) geochemical reactions. The effect of each one of these processes varies based on site-specific conditions.

Figure 2-1 illustrates the typical relationship between time and resistance to flow for plugging caused by several of the above-listed processes. During injection an increased resistance to flow creates an increase in the height of the water level in the injection well. Comparing a graph of water level rise

in the injection well with the typical curves presented in Figure 2-1 can help diagnose the cause of the observed increase in the resistance to flow. As presented in Section 6.1, this curve shape matching technique assisted in the evaluation of data collected during the South Field injection test.

Entrained Air and Gas Binding

Air bubbles may become entrained in the injection water if it is allowed to freely fall down the inside of the injection well or if air is allowed to enter the injection piping system. If the injection water contains entrained air bubbles the bubbles can move through well screens and out into the filter pack and surrounding aquifer material. The bubbles can lodge in pore spaces of the filter pack or aquifer material causing an increased resistance to flow and a water level rise in the injection well. This type of plugging is characterized by a rapid increase in the resistance to flow (Figure 2-1). During the South Field injection test air was kept from entering the injection piping system and an attempt was made to maintain positive pressure in the injection piping before discharge below the water surface in the injection well.

Gas binding can also result if dissolved oxygen is released within the aquifer after injection. Dissolved oxygen in the aquifer is an indicator of the concentration of gases in solution. Gas dissolution is generally not a concern unless dissolved oxygen concentrations exceed 10 mg/L. Dissolved oxygen concentrations in the Great Miami Aquifer measured in the injection well were below 10 mg/L before the injection test.

Suspended Solids

In unconsolidated aquifers, suspended solids are removed from the injection water as it flows through the filter pack and out into the aquifer material. Resistance to flow in the injection well will increase as a filter cake accumulates around the injection well (Figure 2-1). The suspended solids physically block the pore spaces in the surrounding filter pack and aquifer material. Suspended solids are present in nearly all types of recharge water. During the South Field injection test total suspended solids were measured in the injection water and surrounding observation wells.

Biological Growth

It is reported by Pyne (1995) that plugging due to biological growth during recharge or injection is not well understood. As with other plugging processes it creates a resistance to flow which can be measured in the injection well. The typical response is illustrated in Figure 2-1. Mechanisms for

biological growth include the accumulation of impermeable slimes, development of a mat of dead cells and by-products, and the dispersion and alteration of colloidal particles in the aquifer material. The amount of growth is directly related to the amount of nutrients present and the geochemistry of the water. The presence of suspended particles near the well bore often supplies the substrate needed to support biological growth. A common method of controlling biological growth is to maintain a chlorine residual of 1 to 5 mg/L in the injection water.

Particle Rearrangement

The injection well used for the South Field injection test was designed and developed to be an extraction well; it was used to conduct a pumping test in May of 1995 (DOE 1995d). Injecting water into this well reverses the stresses that were placed on the surrounding filter pack and aquifer material during development. The possibility exists that the surrounding filter pack and aquifer material could be rearranged, resulting in a decrease in permeability around the well. Pyne reports that reductions in permeability caused by particle rearrangement are small and not likely to be an important mechanism for plugging (Pyne 1995, pg. 117).

Geochemical Reactions

Geochemical reactions can decrease permeability as well as affect the chemistry of the groundwater surrounding the injection well. The most important factors appear to be injection water quality, native groundwater quality, aquifer mineralogy, and changes in temperature and pressure caused by the injection process. The most adverse geochemical reactions are the precipitation of calcium carbonate (calcite), the precipitation of iron hydroxides, and the swelling of clay minerals.

Sieve analyses of soil collected from the South Field injection test area indicate that clay content is very low (approximately 5 percent or less) and not a concern for this particular injection test (DOE 1995d). Temperature differences were also not a concern because untreated Great Miami Aquifer groundwater was being injected into the Great Miami Aquifer and the residence time of the groundwater as it traveled from one location to the next was very short.

Calcium carbonate and iron hydroxide precipitation was not expected to be a concern if the injection water was not exposed to the atmosphere (i.e., placed in a holding or break tank) before use

(IT 1995). The precipitation of calcium carbonate occurs when the partial pressure of carbon dioxide (P_{Co2}) decreases in the groundwater according to the following reaction:

$$HCO_3^- = OH^- + CO_2$$

The degassing of carbon dioxide allows the bicarbonate ion to dissociate to hydroxide and an additional carbon dioxide. Concomitant with carbon dioxide degassing, an increase in pH allows further dissociation of bicarbonate ion to carbonate ion and water. An increase in the concentration of carbonate ion results in precipitation of calcite according to the following reactions:

$$HCO_3^- + OH^- = CO_3^{-2} + H_2O$$

$$Ca^{+2} + CO_3^{-2} = CaCO_3$$

The result of such a reaction would be the potential for carbonate scale to form in pipes and pumps down line from the break tanks.

The precipitation of iron hydroxide could occur if the partial pressure of oxygen (P_{O2}) in the groundwater increases. The partial pressure of oxygen in the most oxygenated groundwater sample collected from the Great Miami Aquifer is lower than the partial pressure found in the atmosphere. Exposure of Great Miami Aquifer groundwater to the atmosphere would allow the partial pressure of oxygen in the groundwater to increase and oxidize Fe^{+2} according to the following reaction:

$$2Fe^{+2} + 1/2O_2 + H_2O = 2Fe^{+3} + 2OH^-$$

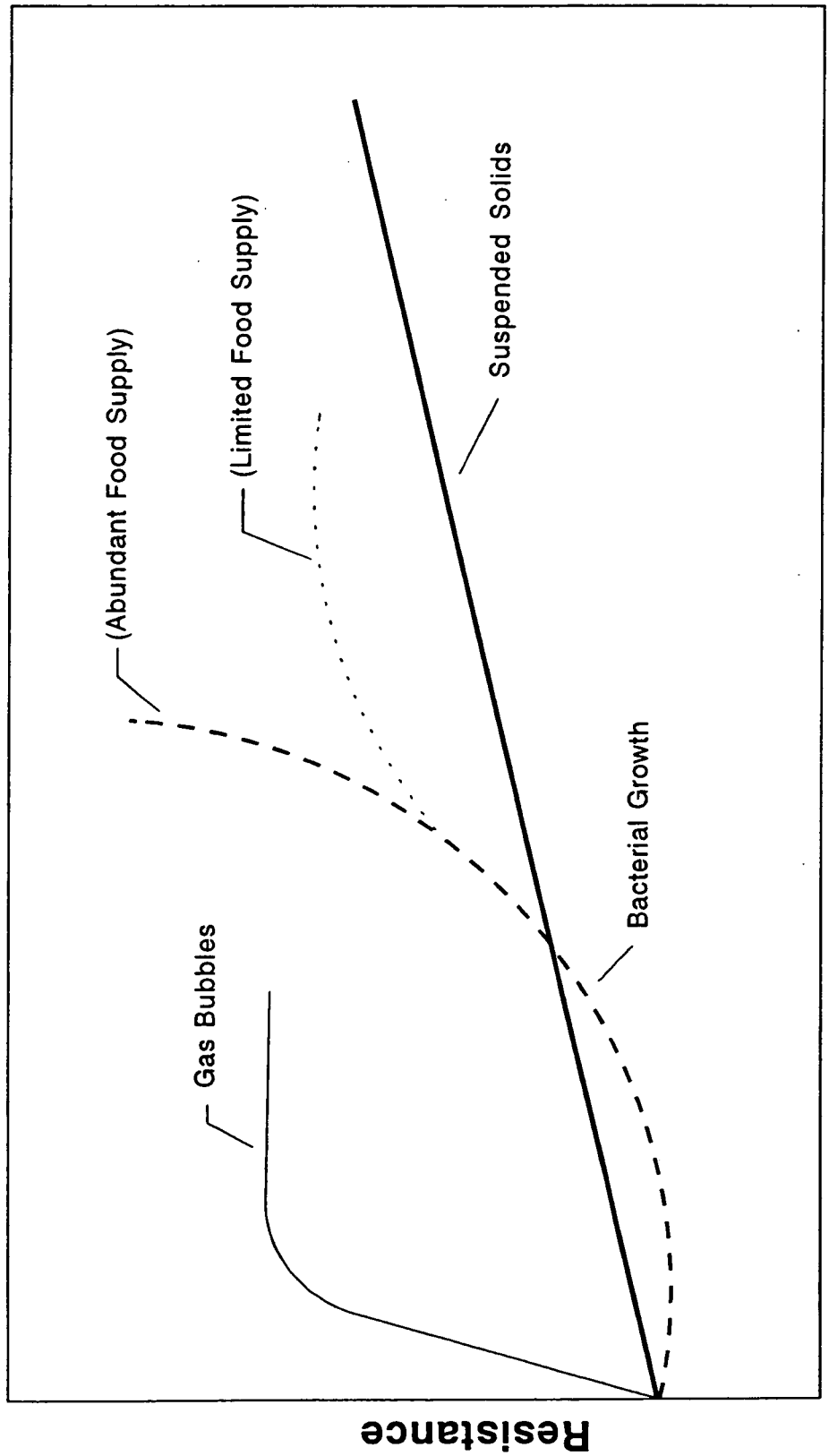
The formation of ferric iron is rapidly followed by the precipitation of iron hydroxide:

$$Fe^{+3} + 3OH^- = Fe(OH)_3$$

These two reactions can occur rapidly and it is common to see an orange to red slime when iron (II) is brought to the surface and filtered in the open atmosphere. The oxidation of ferrous iron to ferric

iron at pH 7 occurs when Eh values are between 150 and 200 millivolts (mv). To reduce the possibility of these two reactions occurring, the water used during the injection test was delivered in a closed system.

G:\INJTEST\PLUG



Note: From Pyne, R. D. G. (1995)

FIGURE 2-1. TYPICAL PLUGGING PROCESSES

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Section 3.0

3.0 HYDROGEOLOGY OF THE INJECTION TEST AREA

The hydrogeology of the Great Miami Aquifer and the South Field injection test area is described in detail in the Operable Unit 5 Remedial Investigation (RI) Report (DOE 1995c). What follows is a brief summary of the hydrogeology of the testing area.

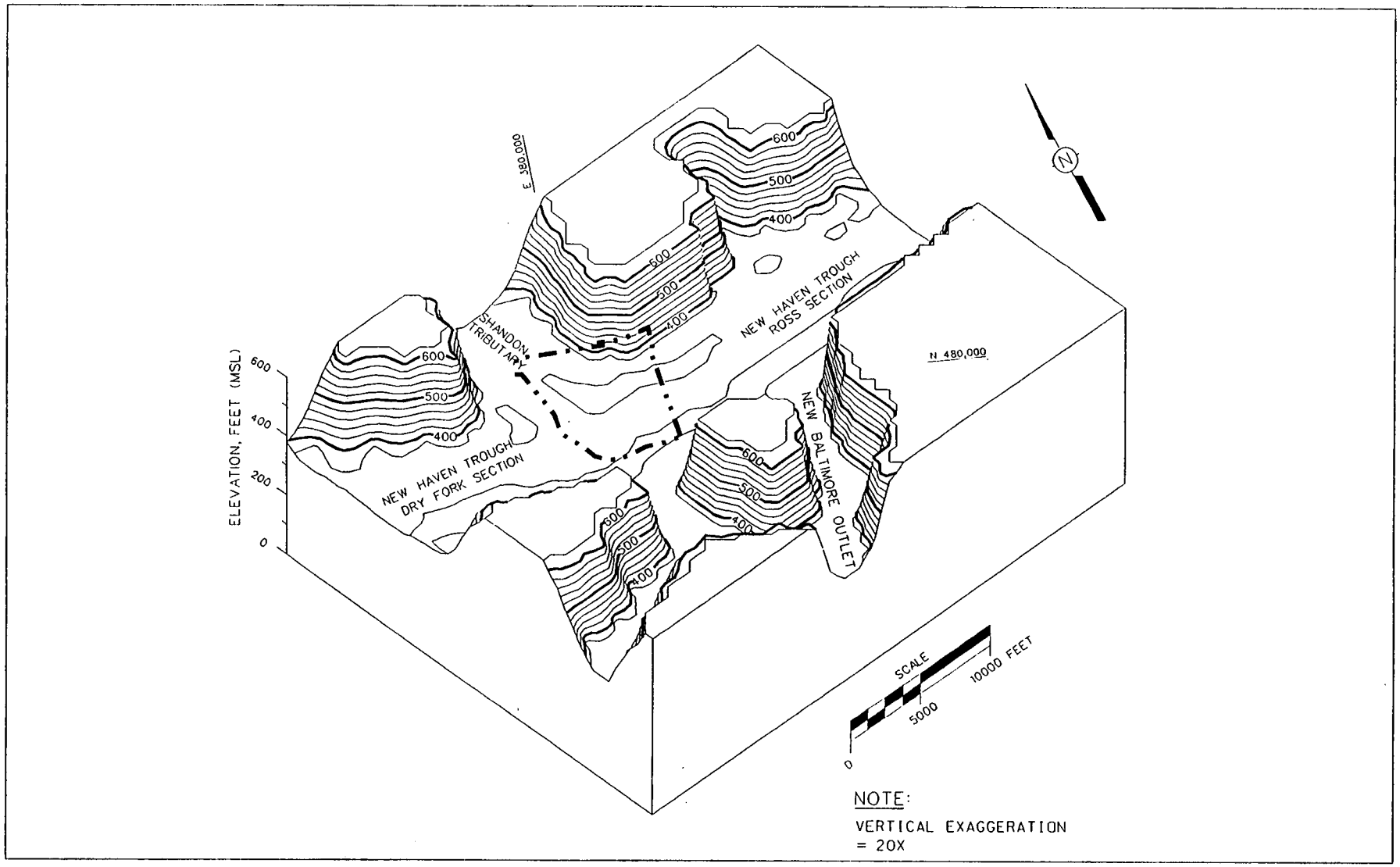
The South Field injection test area is situated over the New Haven Trough, a large buried valley whose axis runs northeast-southwest (Figures 3-1 and 3-2). The floor and walls of the New Haven Trough consist of Ordovician age shale and limestone. At the injection test site the depth to bedrock is 185 feet below ground surface (bgs); this depth was measured when Well 31550 was drilled. During the Pleistocene, the New Haven Trough was carved into the shale and limestone bedrock, filled with sand and gravel, and capped with a layer of Wisconsin age clay-rich glacial overburden. The sand and gravel forms the matrix of a regionally extensive aquifer known as the Great Miami Aquifer. At Well 31550 the sand and gravel is 168 feet thick. The Great Miami Aquifer is unconfined, anisotropic, and heterogeneous and has been designated a sole-source aquifer.

A semiconfining clay layer divides the aquifer into an upper and lower zone beneath portions of the FEMP. This clay layer is not present at the injection test location but it is present approximately 1200 feet north and 900 feet to the west (Figure 3-3). As documented at Well 31550, in descending order the lithology of the test area consists of: 11.5 feet of brown clay, 6 feet of gray clay, 28.5 to 36.5 feet of unsaturated sand and gravel, and 131 to 139 feet of saturated sand and gravel (depending upon the seasonal elevation of the water table). The walls of the New Haven Trough are located thousands of feet to the north and south of the test site.

There are no surface water bodies in the immediate vicinity of the test location. One intermittently flowing stream (Paddys Run) is present approximately 1000 feet to the west. The storm sewer outfall ditch is located approximately 400 feet to the north of the test area and a tributary to the ditch is located approximately 400 feet west of the test location. Sections of both of these surface drainages are in direct contact with sand and gravel in the Great Miami Aquifer and represent recharge zones to the aquifer.

Sieve analyses of soil samples collected during the drilling of wells located in the injection test area indicate that the sand and gravel was deposited in a braided stream environment where the energy of deposition changed over a very short distance (DOE 1995c).

Hydraulic conductivity estimates for the injection test site range from 509 to 558 feet/day with a geometric mean of 523.6 feet/day. Estimated vertical hydraulic conductivity ranges from 31.9 to 66.6 feet/day with a geometric mean of 51.5 feet/day (DOE 1995c).



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FEMP BOUNDARY

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FIGURE 3-1. 3-DIMENSIONAL BEDROCK CONFIGURATION AT THE FEMP

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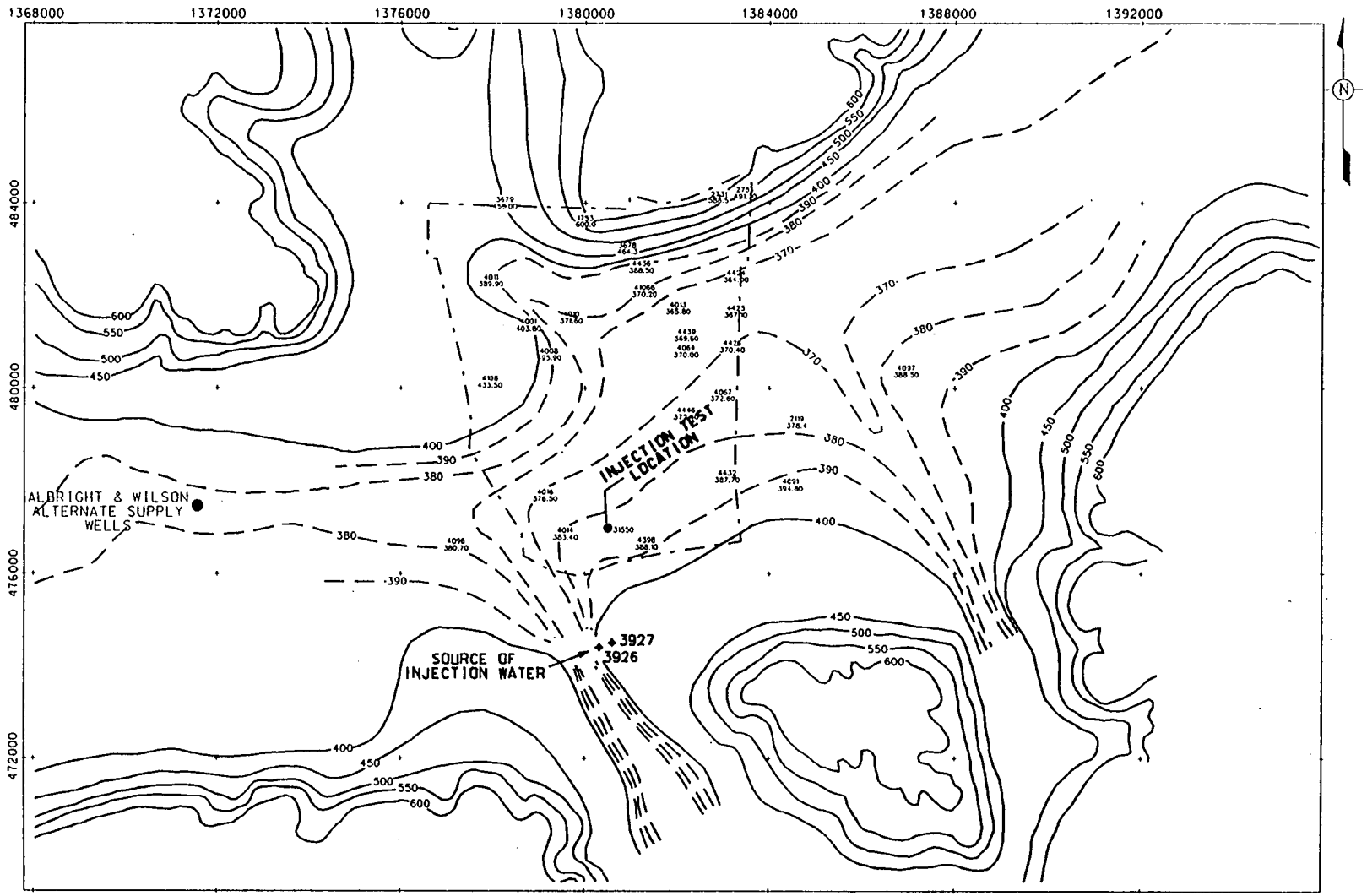

LEGEND:

FEMP BOUNDARY

10 FOOT BEDROCK CONTOUR (RI/FS WELL DATA)

50 FOOT BEDROCK CONTOUR (WATKINS & SPIEKER, 1971)

4096 WELL/BORING NUMBER

380.70 BEDROCK ELEVATION

SCALE

2500 1250 0 2500 FEET

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FIGURE 3-2. BEDROCK TOPOGRAPHIC SURFACE

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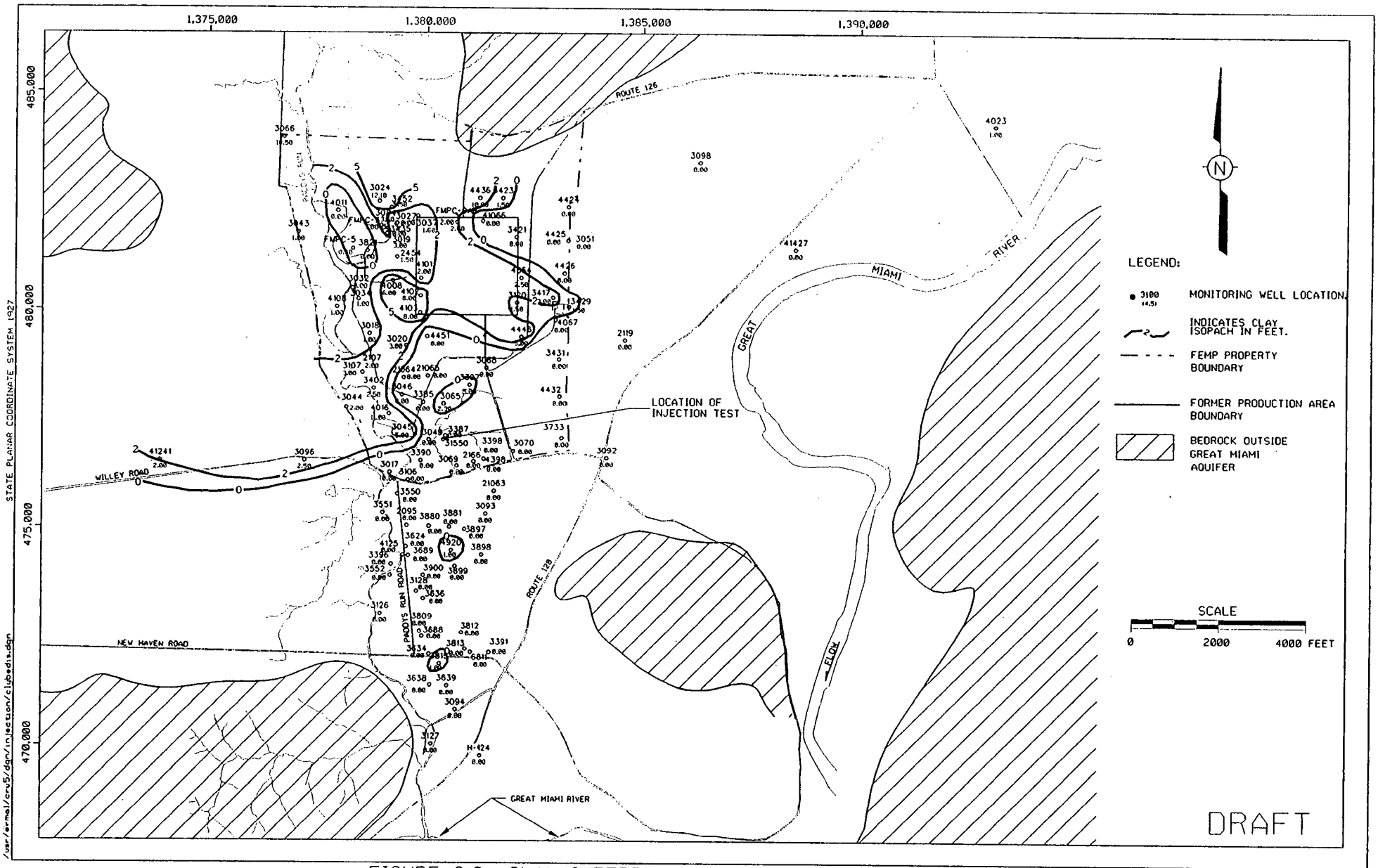

FIGURE 3.3 CLAY INTERBED ISOPACH

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Section 4.0

4.0 DESCRIPTION OF THE SOUTH FIELD INJECTION TEST

This section describes the design and implementation of the test pursuant to the Project-Specific Plan for the South Field Injection Test (DOE 1995b).

4.1 DESIGN OF THE TEST

The South Field injection test was similar to a pumping test in that it was comprised of a step test and a constant rate test (CRT). Instead of extracting groundwater, however, Great Miami Aquifer groundwater was injected back into the aquifer and the resistance to injection was measured and recorded along with changes to the water quality of the native South Field groundwater.

The South Field pumping test site (DOE 1995d) was selected as the site for the South Field injection test (Figure 1-2). The infrastructure for performing an injection test was already in place; i.e., a pipeline that could deliver a source of injection water and a series of observation wells strategically spaced and distanced from the injection well (Figure 4-1). The physical and hydraulic properties of the aquifer beneath the South Field area, which needed to be understood for conducting an injection test, had also been calculated (DOE 1995d).

Groundwater for the injection test was pumped from South Plume Extraction Wells 3926 and 3927 (Figure 4-2). These two wells are located outside of the 20 μg/L total uranium plume. The two wells were pumped at a rate of 500 gpm each for the duration of the test. A portion of the pumped groundwater was diverted from the South Plume force main to the injection well (31550) in the South Field using a temporary pipeline which remained from the South Field pumping test (DOE 1995d). The other two extraction wells of the South Plume system (3924 and 3925), located within the 20 μg/L total uranium plume, were not operated during the injection test. By only operating the two South Plume wells that are located outside of the 20 μg/L total uranium plume, the average uranium concentration of the groundwater being injected at the South Field was approximately 4.9 μg/L (Table 4-1).

The injection well used for this test (31550) is situated slightly south of the main axis of the New Haven Trough (Figure 3-2) and is a stainless steel, 12-inch diameter well completed with a filter pack. The screen is a 20-foot long, 0.06-inch slot, continuous wire wrap screen that is situated between an elevation of 508.06 and 488.06 feet above mean sea level (amsl) (Figure 4-3). Although

Well 31550 was designed as an extraction well, it served as an injection well for the purpose of this test. For a field-scale demonstration in the Great Miami Aquifer new wells would be designed, installed and tested to facilitate efficient injection.

A 2-inch polyvinyl chloride (PVC) observation well was installed just outside the screen of Well 31550 in the filter pack material. The observation well completed in the filter pack has a 5-foot long, 0.02-inch slot, continuous wire wrap screen set at the midpoint of the screen of Well 31550. For the purpose of this report the well is referred to as "31550-out." Water level and water quality measurements collected from inside the screen in Well 31550 are referred to as "31550-in."

Six 2-inch PVC observation wells were installed around the injection well (Figure 4-1). As mentioned earlier, the existence of these six observation wells was a main factor in choosing the South Field area for the injection test. Specifications for the observation wells are tabulated in Figure 4-4. During the test, each observation well was equipped with an Insitu™ Model PXD-260 pressure transducer with a range of 20 psi. Water level changes were measured and recorded using an 8 channel Insitu™ Hermit-2000 data logger. Printouts from the data loggers are provided in Appendix A. Five of the observation wells (31550-out, 31551, 31552, 31553, and 31555) were also equipped with downhole water quality probes (Hydrolab™, Model H20G). Data loggers were attached to each probe and pH, temperature, salinity, dissolved oxygen, specific conductance, and redox were measured and recorded. Printouts from the data loggers are provided in Appendix B.

Injection of groundwater into Well 31550 occurred through a set of two 4-inch PVC pipes referred to in this report as "downcomers" (Figure 4-5). One downcomer had a 1-inch opening in its base, and the other had a 1.75-inch opening in its base. The 1-inch opening was enlarged to 2 inches for the 72-hour constant rate test (see Section 5.0). Restricted flow in the base of the downcomers created positive pressure which kept the injection water from cascading down the pipe during injection. This was done to reduce plugging from entrained air or gas binding. Cascading injection water can cause significant plugging problems, due to air binding in the storage zone, and induced geochemical and bacterial activity (Pyne 1995).

Injection flow to the downcomers was controlled using a gate valve installed upgradient of the downcomers and a ball-and-socket valve on each downcomer pipe (Figure 4-5). Flow rates and total flow amounts were measured using a digital flow meter and a back-up analog flow meter that were

installed in the injection line between the gate valve and the two ball-and-socket valves. Tabulated measurements of flow rates and injection line pressures are provided in Appendix C.

4.2 IMPLEMENTATION OF THE TEST

Pretest monitoring began on September 23, 1995. Water levels were collected from September 22 to October 4 in the wells surrounding the injection test site (2387, 2049, 2390, 2434, and 2398) (see Figure 6-1), and water levels were collected from September 29 to October 4 from observation wells at the injection test site (31550, 31551, 31552, 31553, 31554, 31555, and 31556) (see Figure 4-1). Water quality monitoring at the injection test site using the Hydrolab™ probes began on October 7.

Testing activities began on October 10 and ended on October 17 (Figure 4-6). Slug tests were conducted in the injection well (31550) on October 10, 1995. The purpose of the slug tests was to establish a baseline of well conditions before injection. Preinjection slug test results were compared with postinjection slug test results to determine if the hydraulic characteristics of the wells had changed as a result of the injection test.

A 180-minute step test (three steps of 60 minutes each) was conducted on October 12, 1995. The objective of the step test was to determine an injection rate for a longer 72-hour constant rate injection test.

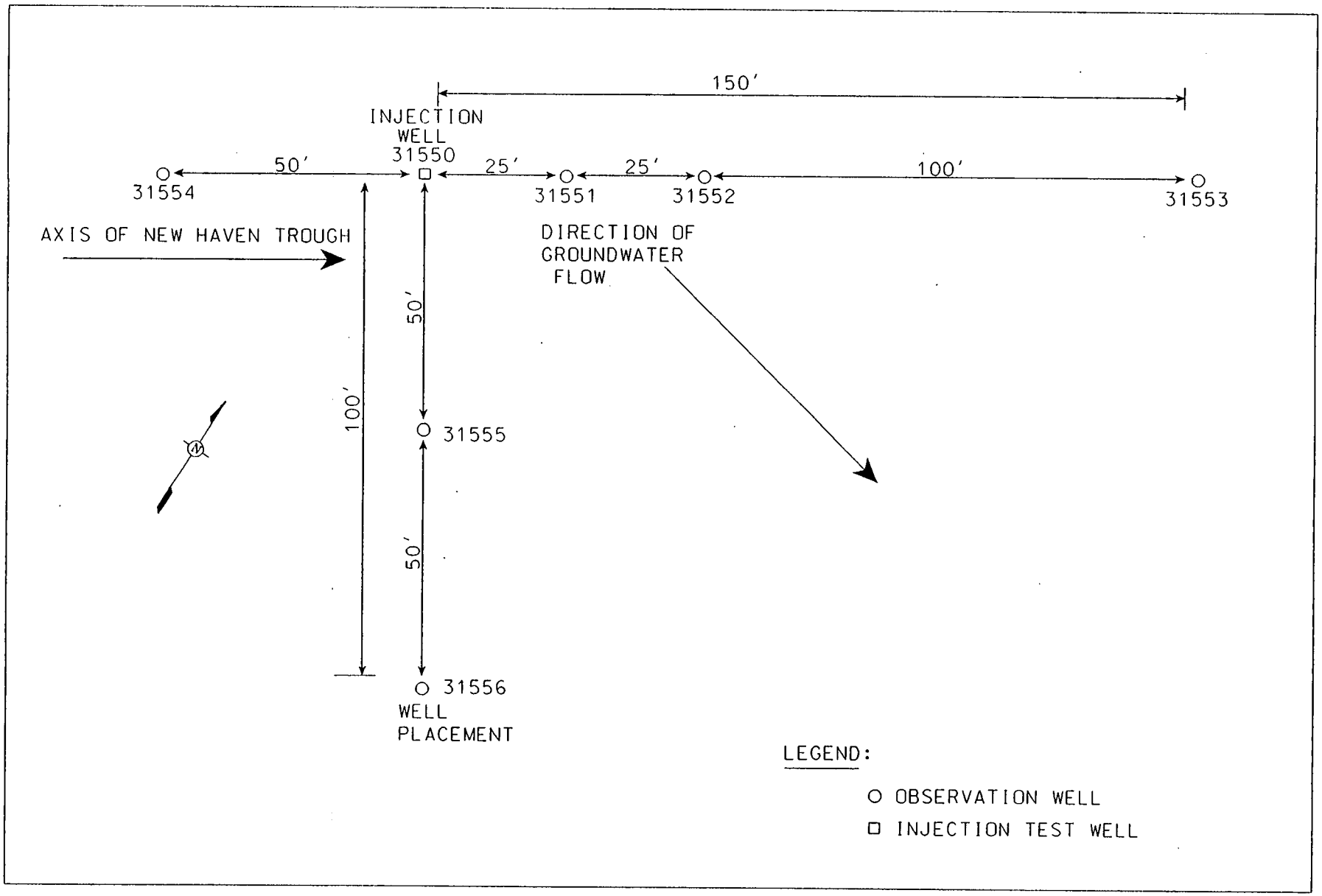
A 72-hour constant rate injection test began on October 13 and ended October 16, 1995. Within 24 hours after injection stopped the aquifer had recovered to pretest water level elevations. Postinjection slug tests were conducted in the injection well on October 17, 1995.

TABLE 4-1

QUALITY OF INJECTION WATER

Sampling Date	Sampling Time (military)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	12:15	120*	2
10/12/95	11:42	120*	12
10/12/95	13:10	7.2	5
10/12/95	14:40	4.8	2
10/12/95	15:30	5.1	2
10/12/95	19:44	5.9	2
10/13/95	11:25	5.2	4
10/13/95	20:35	4.3	3
10/14/95	10:28	4.7	2
10/14/95	19:04	4.3	4
10/15/95	19:00	4.4	2
10/15/95	10:00	5.5	2
10/15/95	19:20	4.4	2
10/16/95	10:25	4.5	5
10/16/95	17:30	4.3	2

* Note - These values represent stagnant water left in the pipeline following a pumping test conducted in May of 1995 (DOE 1995d). It is estimated that approximately 900 gallons of stagnant water were present in the line before injection. Injection for the step test did not begin until 12:16 p.m. on October 12th.

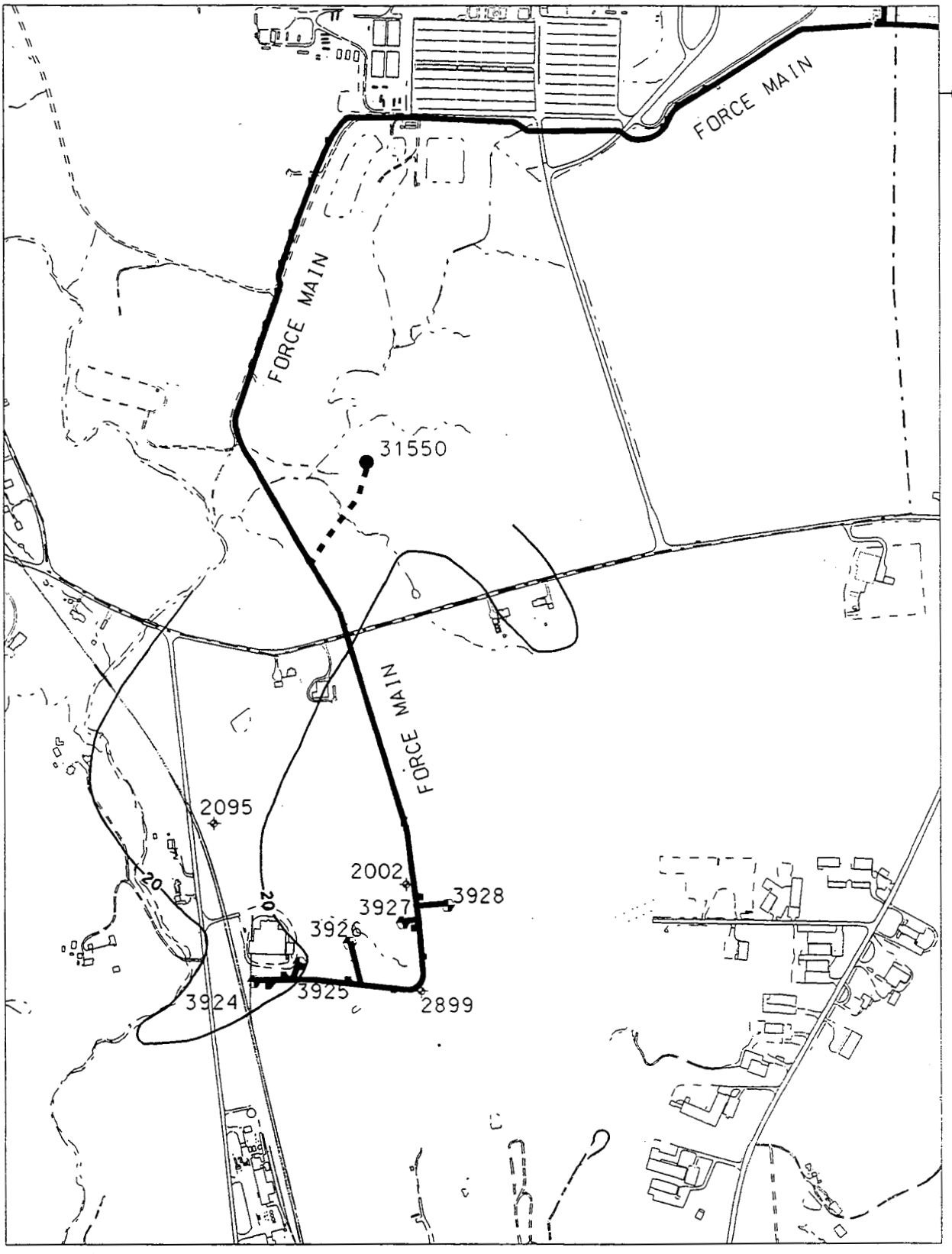


DRAFT

/usr/ermo1/cru5/dgn/INJECTION/TSTNET.dgn

FIGURE 4-1. INJECTION TEST WELL NETWORK

/USR/ERMAI/CRU5/DGN/MAP/HOR/DPTH/C5JEC006.DGN FER OU5 11/16/95 STATE PLANAR COORDINATE SYSTEM 1927



LEGEND:

FEMP BOUNDARY

TEMPORARY PIPING

20 μg/L URANIUM CONTOUR

SCALE

800 400 0 800 FEET

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FIGURE 4-2. LOCATION OF INJECTION WATER, SITE AND PIPING

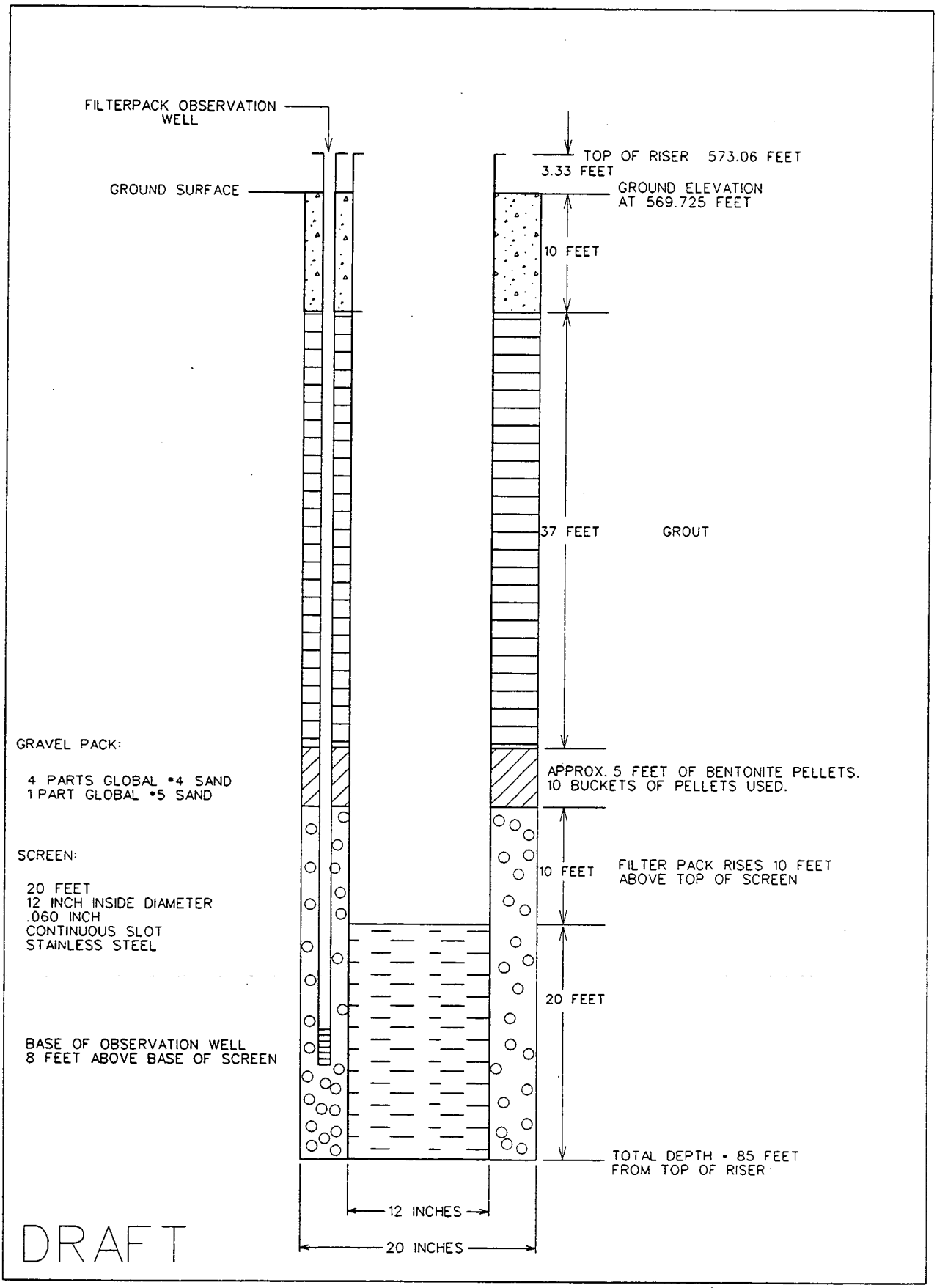
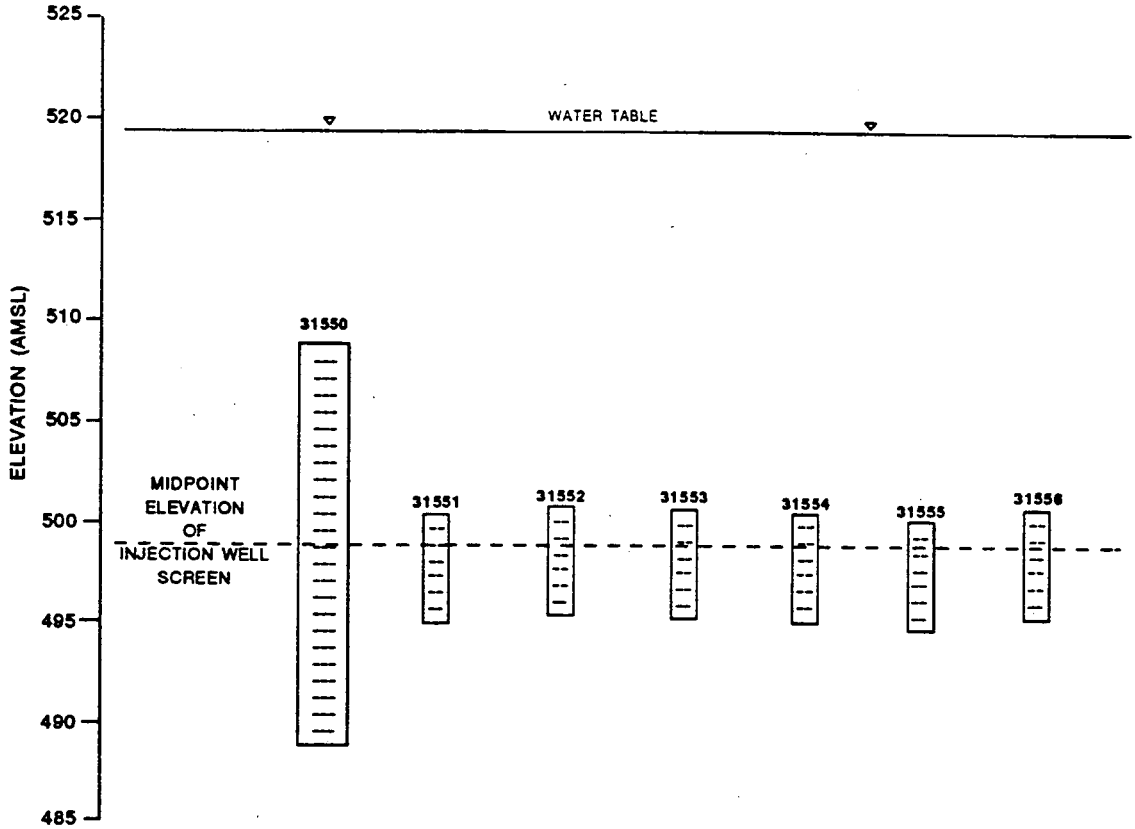


FIGURE 4-3. DESIGN OF WELL 31550



WELL SPECIFICATIONS AND WATER TABLE INFORMATION:

WELL NUMBER	31550	31551	31552	31553	31554	31555	31556
OUTER PROTECTIVE CASING ELEVATION (FT AMSL)	573.06	572.47	573.747	577.161	570.483	571.788	573.711
DEPTH TO TOP OF SCREEN (FT)	65	71.66	72.3	76.55	70.58	71.62	72.58
TOP OF SCREEN ELEVATION (FT AMSL)	508.06	500.81	501.45	500.61	499.9	500.17	501.13
SCREEN LENGTH (FT)	20	5	5	5	5	5	5
SCREEN DIAMETER (INCHES)	12	2	2	2	2	2	2
SCREEN SLOT SIZE	0.06	0.02	0.03	0.04	0.02	0.04	0.02

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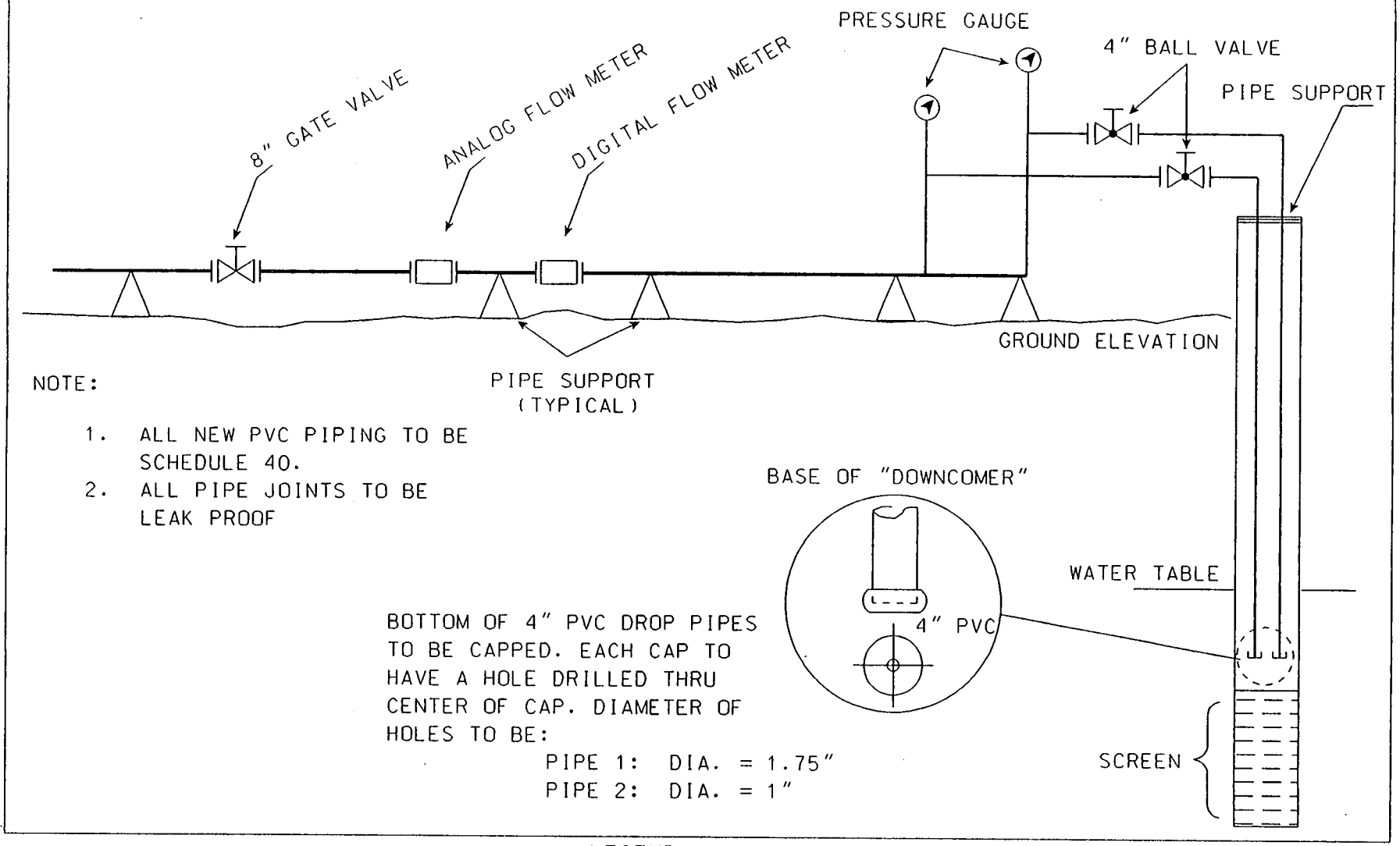
FIGURE 4-4. WELL SCREEN CONFIGURATIONS



LEGEND:

SCHEMATIC ILLUSTRATING WELL 31550 (18 in.)

DRAFT

/USR/ERMA1/CRU5/JECTION/C5JEC007.DGN
11/16/95

FIGURE 4-5. PIPING SCHEMATIC, SOUTH FIELD INJECTION TEST

000032

9692-7398

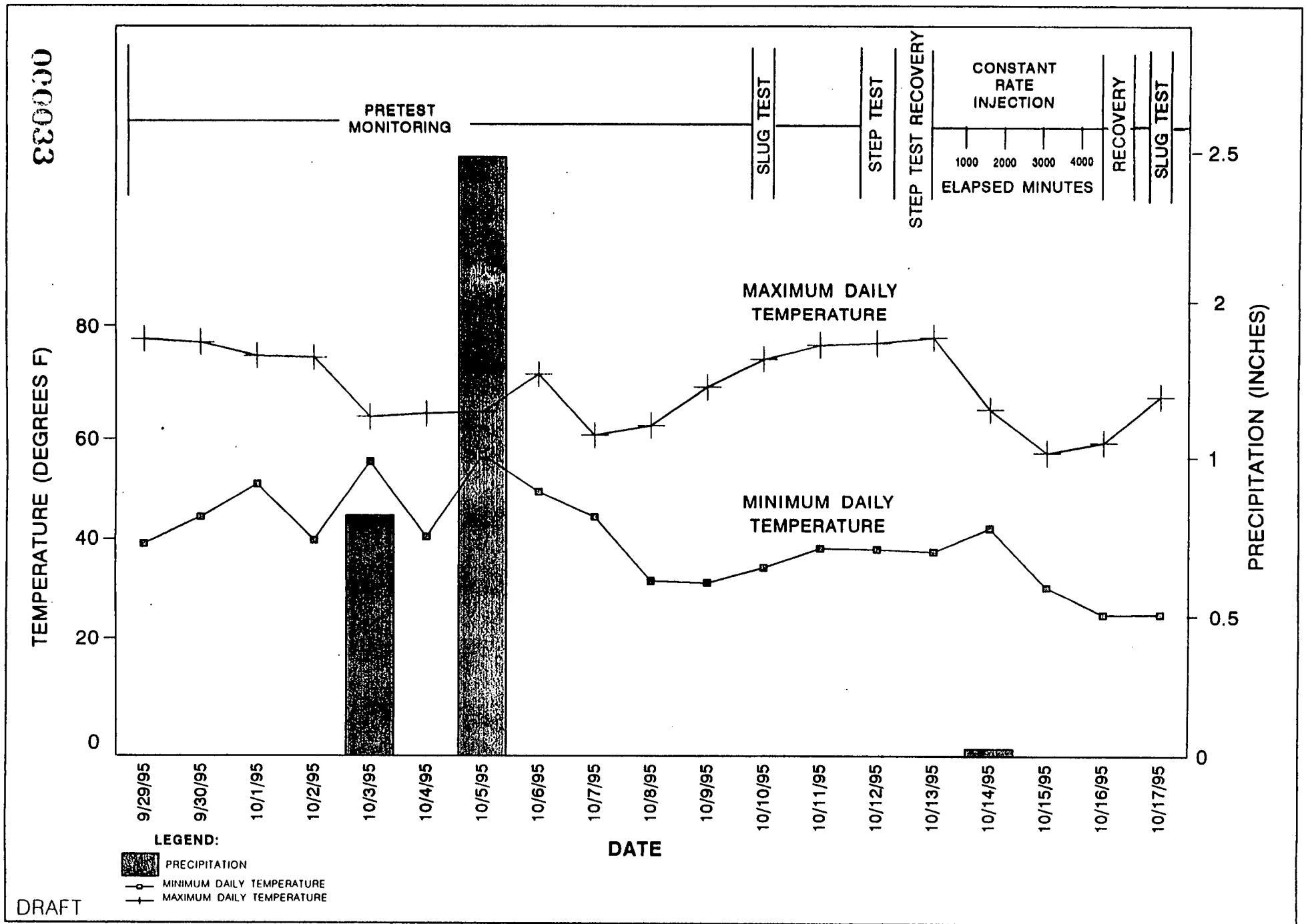


FIGURE 4-6. SOUTH FIELD INJECTION TEST

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Section 5.0

5.0 STEP TEST RESULTS

This section presents water quality and water level data collected during a step injection test conducted on October 12, 1995. The step test was conducted to determine an injection rate for a 72-hour constant rate test and to calculate a range of specific injectivities for the well.

5.1 GROUNDWATER LEVEL CHANGES

Three 60-minute steps were conducted at 100, 300 and 450 gpm, respectively. Table 5-1 presents a summary of the water levels recorded in the injection well (31550). Table 5-2 presents a summary of the resistance to flow (water level rise) recorded in the injection well. Data logger printouts of water level measurements are provided in Appendix A. Pressure transducers located within the well (31550-in) and just outside of the screen in the filter pack surrounding the well (31550-out) were used to record the resistance to flow that resulted from the injection. The resistance to flow (recorded as a water level rise) versus elapsed time for the three injection steps show the same general leveling-off trend, indicating that the water level in the injection well was reaching a pseudo-steady-state resistance condition (Figures 5-1, 5-2 and 5-3). The water level outside of the well screen (31550-out) was always higher than the level measured inside the well screen (31550-in). This may have been caused by downward pressure of the injection flow itself exiting the downcomers or by injection water cascading water down the annulus of the injection well (Pyne 1995).

The water table in the well before injection was 54 feet below the top of the casing. The largest measured water level rise in the well (7.447 feet) occurred during the third step of the test at an injection rate of 450 gpm. Therefore, the closest that the injection water ever got to the top of the casing during the step test was approximately 46.6 feet.

The downcomers had been designed to provide an injection rate up to 600 gpm, but the greatest injection rate achieved during the step test was only 450 gpm. A pressure gauge situated on each downcomer upgradient of the ball-valve was used to measure line pressure. The shut-in line pressure for the system was approximately 15 psi. During the 100-gpm step the line pressure was less than 5 psi. During the 300-gpm step the line pressure ranged between 5 and 7 psi. During the 450-gpm step the line pressure was approximately 15 psi, or the same as the shut-in pressure. This line pressure was attributed to the size of the openings in the bottom of the downcomers. The 1-inch

opening was increased in size to 2 inches after the step test to lower the line pressure for the constant rate test.

5.2 GROUNDWATER QUALITY CHANGES

Before the start of the step test the dissolved oxygen content measured in the injection well was approximately 2.09 mg/L and the redox potential was approximately 483 mv. Following the step test the dissolved oxygen in the injection well measured .13 mg/L and the redox potential measured 131 mv (Figures 5-4 and 5-5). This redox potential value is in the range of concern noted earlier for iron hydroxide precipitation. The injection of groundwater from the South Plume was changing the water quality of the in situ groundwater in the South Field. Data logger printouts of the water quality data collected using the Hydrolab™ probes are provided in Appendix B. When the downcomers were pulled to enlarge the holes in their bottoms, no evidence of iron precipitation (orange to red slime) was noted. Although the chemistry of the in situ South Field groundwater had been changed by the injection process, it did not appear that oxidation had taken place.

5.3 SELECTION OF A CRT PUMPING RATE

Based upon the results of the step test it was decided to run the 72-hour constant rate injection test at an injection rate of 300 gpm. The injection water being used for the test was being diverted from the South Plume force main. It was determined during the step test that this system would be capable of maintaining a flow rate to the injection well of approximately 450 gpm.

Although flow resistance measurements collected during the step test indicated that plugging did not seem to be a concern and visual inspection of the downcomers did not indicate that a precipitate had formed within the injection well, the water quality results indicated that conditions in the South Field water around the injection well had been altered during the step test and plugging might occur. Because of this, it was decided to use a conservative flow rate for the 72-hour constant rate injection test (300 gpm rather than 450 gpm). It was believed that the water level in the injection well after injecting 300 gpm for 72 hours would be considerably below the top of the casing of the injection well. The resistance-to-flow graph for the 300-gpm step test injection rate indicated that the injection well would have enough room to accommodate in-well mounding that might result if plugging developed during the test.

5.4 ESTIMATE OF SPECIFIC INJECTIVITY

"Specific injectivity" is the opposite of "specific capacity." Specific capacity measures the drawdown in a pumping well given a certain pumping rate according to the following relationship:

$$SC = Q/S, \text{ where } Q = \text{the pumping rate and } S = \text{drawdown}$$

Specific injectivity measures the rise of the water level within the injection well due to a certain injection rate according to the following relationship:

$$SI = Q/R, \text{ where } R = \text{rise in the water table}$$

The step test showed that the specific injectivity for Well 31550 was approximately equal to the specific capacity (Table 5-3). Because cascading and injection pressures can interfere with the pressure transducer located inside the casing, data collected from the transducer located in the filter pack was used to make the calculations. The specific capacity of the injection well at a pumping rate of 400 gpm was calculated to be 48.5 gpm/ft (DOE 1995d, Table 4-3). The specific injectivity of the injection well at an injection rate of 450 gpm is calculated to be 46.44 gpm/ft of rise (Table 5-3). This represents a difference of approximately 4 percent.

TABLE 5-1

WATER LEVELS IN THE INJECTION WELL (31550) DURING THE STEP TEST
(measurements are in feet amsl)

Elapsed Time (minutes)	Injection Rate Inside and Outside the Well Screen					
	Step 1 - 100 gpm		Step 2 - 300 gpm		Step 3 - 450 gpm	
	31550-out	31550-in	31550-out	31550-in	31550-out	31550-in
0	518.954	519.031	519.954	519.031	518.954	519.031
0.1	519.035	519.119	519.117	519.195	525.2	524.074
0.2	519.06	519.151	519.274	519.391	525.698	524.499
0.3	519.199	519.303	519.833	519.999	526.271	524.86
0.4	519.733	519.702	520.305	520.968	527.115	525.343
0.5	520.116	520.513	520.487	521.196	527.361	525.888
0.6	520.261	521.039	520.6	521.5	527.506	526.231
0.7	520.343	521.438	520.758	522.838	527.512	526.389
0.7	520.368	521.698	521.009	523.263	527.575	526.402
0.9	520.399	522.002	522.475	523.592	527.607	526.358
1	520.456	522.014	523.186	523.694	527.707	526.326
2	520.682	520.399	524.76	523.694	528.01	526.281
3	520.689	520.373	524.785	523.649	528.155	526.313
4	520.695	520.329	524.829	523.637	528.205	526.339
5	520.733	520.361	524.778	523.605	528.199	526.281
6	520.72	520.342	524.86	523.624	528.275	526.281
7	520.72	520.342	524.86	523.611	528.218	526.199
8	520.739	520.354	524.86	523.649	528.319	526.186
9	520.72	520.367	524.892	523.618	528.218	526.294
10	520.745	520.392	524.873	523.63	588.268	526.218
20	520.783	520.443	524.923	523.694	528.375	526.212
30	520.808	520.475	525.03	523.694	528.407	526.148
40	520.827	520.475	524.999	523.744	528.483	526.408
50	520.827	520.456	525.055	523.757	528.413	526.281
60	520.865	520.487	525.15	523.808	528.646	526.478

TABLE 5-2

RESISTANCE TO FLOW IN THE INJECTION WELL DURING THE STEP TEST

Elapsed Time (minutes)	Injection Rate Inside and Outside the Well Screen					
	Step 1 - 100 gpm		Step 2 - 300 gpm		Step 3 - 450 gpm	
	31550-out	31550-in	31550-out	31550-in	31550-out	31550-in
0.1	0.081	0.088	0.163	0.164	6.25	5.043
0.2	0.106	0.12	0.32	0.36	6.74	5.468
0.3	0.245	0.272	0.879	0.968	7.32	5.829
0.4	0.779	0.671	1.351	1.937	8.16	6.312
0.5	1.162	1.482	1.533	2.165	8.41	6.857
0.6	1.307	2.008	1.646	2.469	8.55	7.2
0.7	1.389	2.407	1.804	3.807	8.56	7.358
0.7	1.414	2.667	2.955	4.232	8.62	7.371
0.9	1.445	2.971	3.521	4.561	8.65	7.327
1	1.502	2.983	4.232	4.663	8.75	7.295
2	1.728	1.368	5.806	4.663	9.06	7.25
3	1.735	1.342	5.831	4.618	9.20	7.282
4	1.741	1.298	5.875	4.606	9.25	7.308
5	1.779	1.33	5.824	4.574	9.25	7.25
6	1.766	1.311	5.906	4.593	9.32	7.25
7	1.766	1.311	5.906	4.58	9.26	7.168
8	1.785	1.323	5.906	4.618	9.37	7.155
9	1.766	1.336	5.938	4.587	9.26	7.263
10	1.791	1.361	5.919	4.599	9.31	7.187
20	1.829	1.412	5.969	4.663	9.42	7.181
30	1.854	1.444	6.076	4.663	9.45	7.117
40	1.873	1.444	6.045	4.713	9.53	7.377
50	1.873	1.425	6.101	4.726	9.46	7.25
60	1.911	1.456	6.196	4.777	9.69	7.447

TABLE 5-3

SPECIFIC INJECTIVITY VS SPECIFIC CAPACITY

Well No.	Step	Injection Rate (gpm)	Incremental Rise (ft)	Rise (ft)	Specific Injectivity (gpm/ft[a])	Pumping Rate (gpm)	Specific Capacity (gpm/ft[b])
31550-In	1	100	1.456	1.456	68.7		
	2	300	3.321	4.777	62.8		
	3	450	2.67	7.447	60.4		
31550-Out	1	100	1.911	1.911	52.3	200	49.6
	2	300	4.285	6.196	48.4	400	48.5
	3	450	3.494	9.69	46.4	600	46.0

[a]Refers to rise in water table
[b]Refers to drawdown

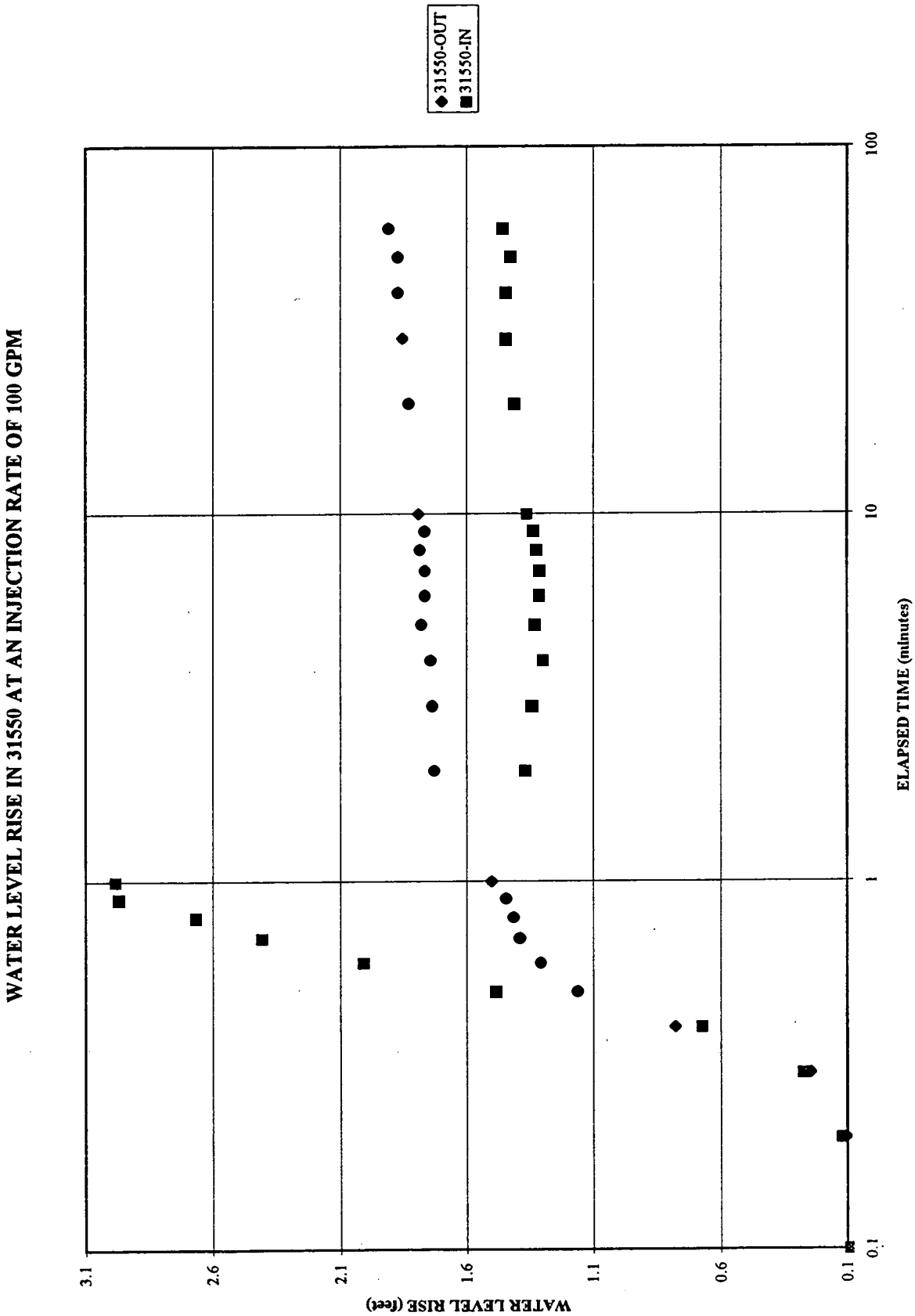

FIGURE 5-1. WATER LEVELS IN WELL 31550, 100 GPM INJECTION

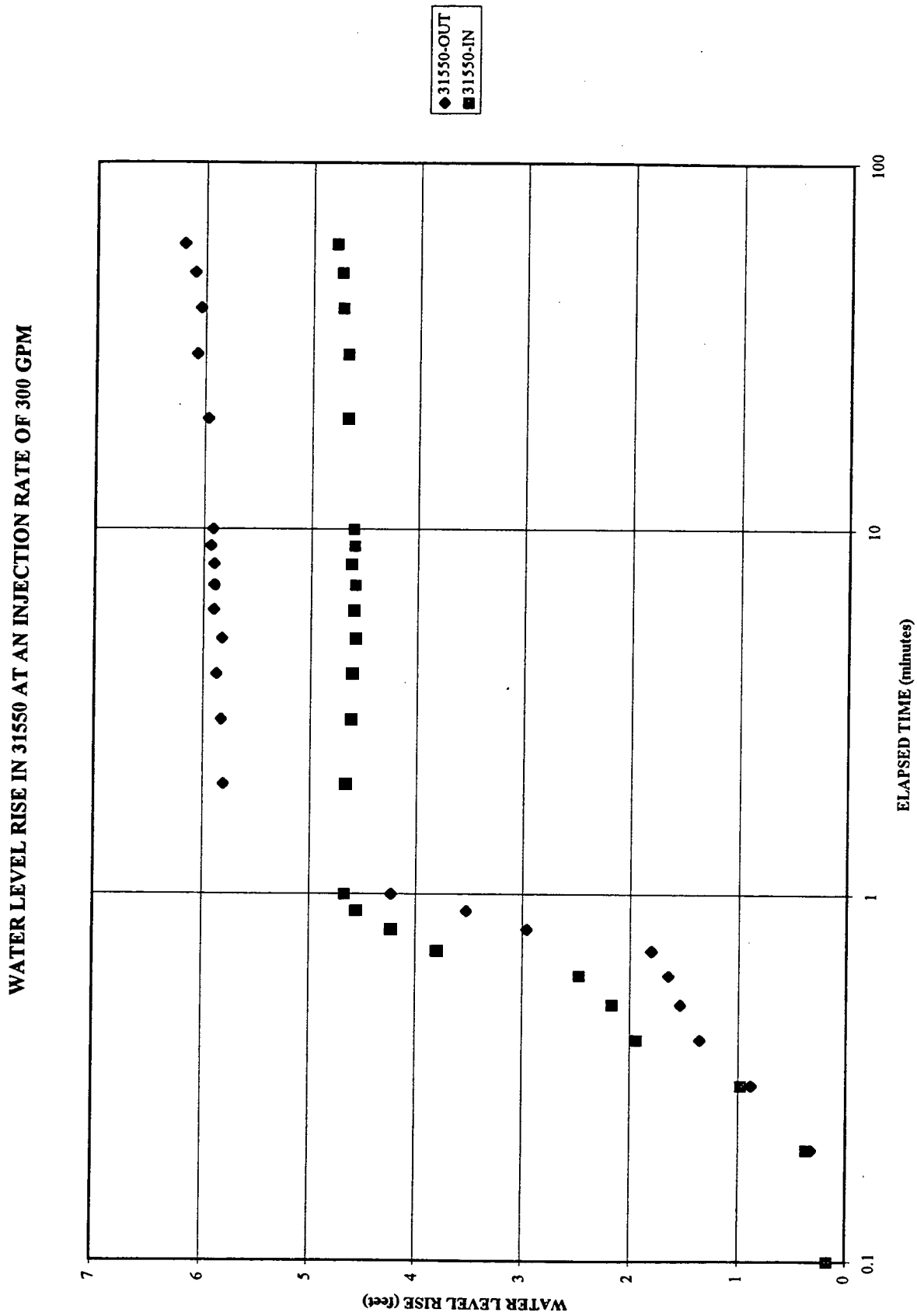

FIGURE 5-2. WATER LEVELS IN WELL 31550, 300 GPM INJECTION

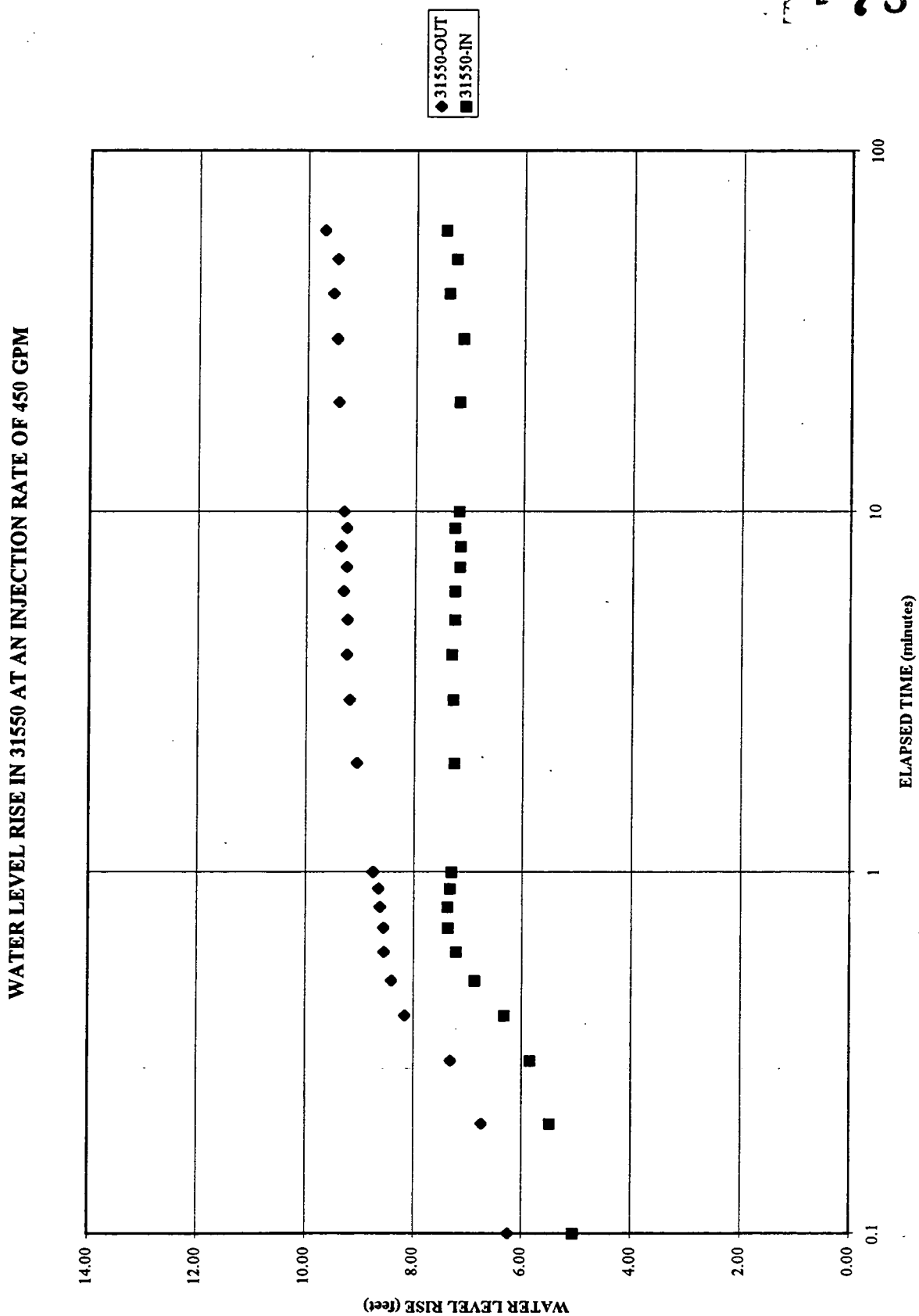

FIGURE 5-3. WATER LEVELS IN WELL 31550, 450 GPM INJECTION

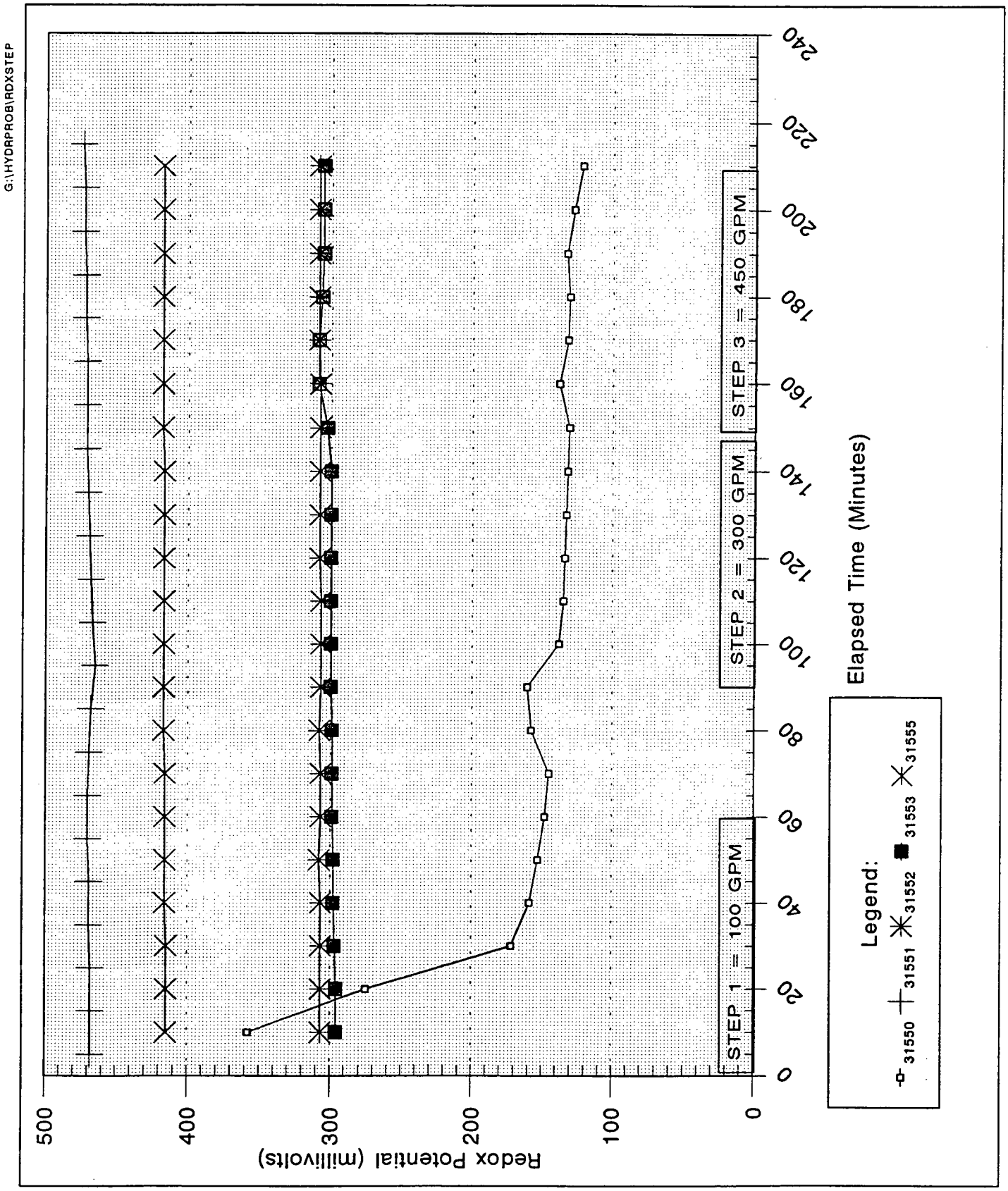

FIGURE 5-4. SOUTH FIELD INJECTION TEST, REDOX POTENTIAL VS. ELAPSED TIME

G:\HYDRPROB\DOSTEP

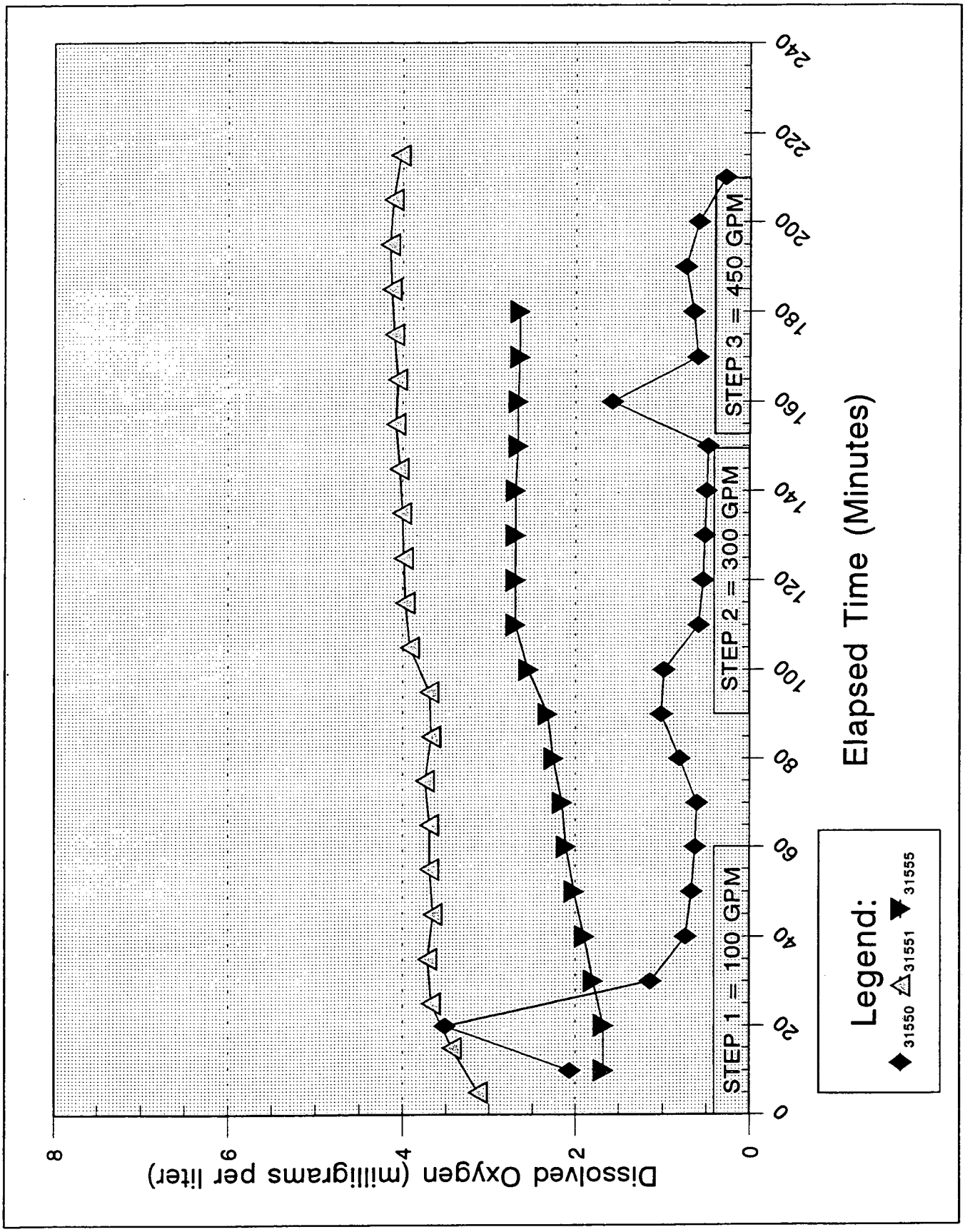

FIGURE 5-5. SOUTH FIELD INJECTION STEP TEST - DISSOLVED OXYGEN vs. ELAPSED TIME

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6.0 CONSTANT RATE INJECTION TEST RESULTS

This section presents water quality and water level data collected during the constant rate injection test. The CRT began at 11:10 on October 13, 1995, lasted for 72 hours, and was conducted at a 300-gpm injection rate. Data logger printouts of water levels measured during the CRT are provided in Appendix A and data logger printouts of water quality measured during the CRT are provided in Appendix B. Injection rates were recorded every minute for the first 10 minutes, and every 30 minutes for the remainder of the test. These measurements have been tabulated along with line and barometric pressures and can be found in Appendix C.

The effects of regional water level trends, barometric pressures and precipitation were considered during the interpretation of water level data collected during the CRT. As is explained below, barometric pressure changes and precipitation were insignificant during the CRT. Water level measurements collected during the CRT were corrected for a regional water level drop of approximately .02 ft/day.

Water quality data collected during the CRT indicated that the groundwater chemistry changes noted within the injection well during the step test continued during the CRT (lower dissolved oxygen and redox potential). Visual observation of the well and downcomers after the CRT indicates that ferric iron precipitation coupled with the growth of iron bacteria formed in the injection well as a result of the injection process. Water quality data collected following completion of the CRT supports this conclusion.

6.1 WATER LEVEL CHANGES

The objective of collecting water level data within and around the injection well during the constant rate injection test was to determine the resistance to flow within the injection well and the water level rise surrounding the injection well. As explained earlier, an increase in the resistance to flow within the injection well is evidence that plugging could be taking place. Plugging should be avoided because it decreases the efficiency of the injection process and could lead to irreversible decreases in aquifer permeability surrounding the injection well. The effects of regional water level trends, barometric pressure, and precipitation on water level data collected during the test were assessed to get the most accurate measurement of the rise in the water table resulting from the injection alone.

Regional Water Table Trend

Water level monitoring at five surrounding wells and at the injection test site indicates that the regional water table was falling during the injection test (Figure 6-1). Water levels in the wells surrounding the test site (2387, 2049, 2390, 2434 and 2398) measured between September 23 and October 4, 1995 and water levels in the observation wells at the injection test site (31550 through 31556) measured between September 29 and October 4 indicate that the regional water table was falling at a rate of approximately 1.3×10^{-5} ft/minute, or .02 ft/day. Graphs of water level versus date of measurement and tabulations of the data are provided in Appendix D. For the duration of the 72-hour test this amounts to a regional water table fall of .06 feet. October 4 was selected as the cut off for this determination because the water table rose on October 5 in response to 2.46 inches of rain (Table 6-1). By the time that the constant rate injection test began on October 13, 1995 the declining regional trend had resumed. Water levels collected during the constant rate injection test were corrected for this regional water table trend.

Barometric Pressure Changes

The barometric efficiency (BE) of the six closest injection test observation wells (31551 through 31556) was calculated as part of the South Field pumping test in May of 1995 (DOE 1995d, Table 5-4). It was determined that all six of these observation wells have BEs below 20 percent, meaning that barometric pressure has a very small effect on water levels in the wells and is considered insignificant. Barometric pressure readings were collected at the injection test site during the test, but the data was not used to correct water level measurements. The barometric pressure data is tabulated in Appendix C.

Precipitation

Water level measurements collected during the constant rate injection test were not effected by precipitation events. Only .03 inches of rain fell during the CRT. This precipitation event took place on October 14, 1995 (Table 6-1).

Interpretations

Water levels (referenced to feet amsl) collected during the constant rate injection test from Wells 31550 through 31556 are reported in Table 6-2. The measured water level rise (feet) versus elapsed time (minutes) for Wells 31550 through 31556 are presented in Table 6-3. Water level changes corrected for the regional water table decline noted above are presented in Table 6-4.

Water level versus time plots for Observation Well 31550-in and 31550-out are provided in Figures 6-2 and 6-3, respectively. Keeping in mind that water levels in the injection well (31550) are being used as a measure of the resistance to flow, these plots can also be called resistance versus time plots. The plot for Well 31550-in indicates that resistance to flow in the well bore leveled off at approximately 4.9 feet during the first minute of injection and gradually increased to approximately 6.9 feet after the first 600 minutes. At an elapsed time of approximately 600 minutes the rise of water within Well 31550-in began to increase exponentially (Figure 6-2). The same general pattern of increase was recorded in Well 31550-out. The plot for Well 31550-out indicates that resistance to flow leveled off at approximately 5.9 feet during the first minute of injection and gradually increased to approximately 8 feet after the first 600 minutes. At an elapsed time of approximately 600 minutes the rise of water within Well 31550-out began to increase exponentially (Figure 6-3). The resistance versus time plots for Wells 31550-in and 31550-out appear to follow a suspended solids trend up until an elapsed time of approximately 600 minutes. At an elapsed time of approximately 600 minutes, the resistance versus time plots appear to follow a biological growth pattern where an abundant food supply is available, similar to trends shown in Figure 2-1.

Water level measurements collected around the injection well, in Observation Wells 31551 through 31556, document the amount of water level rise that occurred at each location during the course of the CRT as a result of the injection. Corrected water level rise versus elapsed time plots for each of the six observation wells are found in Figures 6-4 through 6-9. The pattern of water level rise is approximately the same at each location. The rate of rise in the water level increased between 10 and 20 minutes at all six observation wells. The change in increase appears to have propagated outward from the injection well to the observation wells. This propagation effect is illustrated in Figure 6-10 which is a plot of water level rise versus time for Wells 31551, 31552, and 31553. All three of these wells are located along the same line of action from the injection well but at increasing distances from the well with 31551 being 25 feet away, 31552 being 50 feet away and 31554 being 150 feet away (Figure 4-1). Figure 6-10 shows the water level rise between an elapsed time of 10 and 40 minutes. The data logger during this time period was collecting a measurement every 2 minutes. The plot shows that an increase in the rate of water level rise began in Well 31551 between approximately 12 to 14 minutes. The increase in the rate of water level rise at Well 31553 began between approximately 14 to 16 minutes and could be attributed to changing saturation conditions reaching each monitoring location as the result of the injection. As the mound of groundwater exits the injection well and moves out into the surrounding aquifer it causes the water table to rise very slowly

until saturated conditions are reached. Once the Great Miami Aquifer sediment above the preinjection water table becomes saturated, the rate of rise increases as reflected by the plots.

6.2 GROUNDWATER QUALITY CHANGES

During the injection test Wells 31550-out, 31551, 31552, 31553, and 31554 were equipped with downhole water quality measurement probes (Hydrolab™ H20G Water Quality Multiprobes). Measurements of temperature, pH, specific conductance, total dissolved solids, dissolved oxygen, and Eh were collected every 10 minutes using a Hydrolab™ Surveyor 3 Display Logger. Data logger printouts are provided in Appendix B. The data indicates that during the test the Eh of the groundwater in the injection well (31550) fell from approximately 297 mv at the start of the test to approximately 122 mv towards the end of the test (Figure 6-11) . Data also indicates that the concentration of dissolved oxygen remained low (approximately .19 mg/L) throughout the CRT (Figure 6-12). The pH of the groundwater in the injection well remained fairly stable (near neutral) throughout the test.

Groundwater samples were collected from the observation wells (31550 through 31556) every 12 hours during the CRT and analyzed in the field for pH, specific conductance, turbidity, dissolved oxygen, and temperature and for total uranium and total suspended solids in the FEMP lab. Tabulated results are provided in Tables 6-5 through 6-11. The uranium results indicate that the total uranium concentration in the injected water within Well 31550 averaged approximately 5.9 μg/L (Table 6-5). The total uranium average for Wells 31551 through 31556 was 50, 35, 34, 74, 27 and 21 μg/L, respectively. Downhole measurements made with the Hydrolab™ equipment (Appendix B) are probably more representative of true in situ groundwater than the measurements of water samples made at the surface.

6.3 RESULTS OF THE CRT

Upon completion of the CRT, the downcomers were disconnected from the injection line and pulled from the injection well for a visual inspection. The inner surface of the injection line and the outer surface of the downcomers were coated with an orange-red slime. A downhole camera survey of the interior of the injection well revealed that portions of the casing were stained orange-red and that a good deal of the surface area of the well screen appeared to be covered by a orange-red flocculating substance. Water samples collected from the injection well following the test revealed that only ferric iron was present (no ferrous), at a concentration of approximately 1 mg/L. Microscopic analysis of a

water sample collected from the well indicated the presence of an iron bacteria from the genus *Gallionella*.

Following completion of the injection test, three of the Hydrolab™ Water Quality Multiprobes used during the injection test were taken to the South Plume area and installed in Wells 3928, 2002, and 2899 to determine pH and Eh conditions (Figure 4-2). These three wells are located in the source area of the water pumped for the injection test. Water quality data indicate that the pH of the groundwater in this area is also near neutral but that the Eh is strongly reduced, with readings in the negative millivolt range. Iron in groundwater in these reducing conditions is in the ferrous state. Analysis of water in Well 31550 following the CRT indicated that only ferric iron was present. Tabulated printouts are provided in Appendix B.

All of the above evidence leads to the conclusion that injecting reduced water into oxygenated water during the CRT resulted in the precipitation of ferric hydroxide within the injection well. The oxidizing reaction created an environment in which *Gallionella* iron bacteria could obtain energy and thrive. The *Gallionella* iron bacteria served as a catalyst to the precipitation reaction. Details of the process are discussed below.

When reduced water is mixed with oxidized water, ferrous iron (Fe^{+2}) in the reduced water is oxidized to ferric iron (Fe^{+3}) according to the following relationship:

$$2Fe^{+2} + 1/2O_2 + 2H^+ = 2Fe^{+3} + H_2O$$

The oxidation takes place rapidly at near neutral pH values. The ferric iron then rapidly hydrolyzes to form a precipitate known as ferrihydrate according to the following relationship:

$$Fe^{+3} + 2H_2O = FeOOH + 3H^+$$

This hydrolysis reaction will take place rapidly at the pH and Eh conditions created by mixing groundwater from the South Plume area with groundwater from the South Field area. In the case of the injection test, this oxidizing reaction was catalyzed by an iron bacteria.

Iron bacteria is found almost everywhere, in both water and soil, and is particularly prevalent in the upper midwestern United States. Iron bacteria plug wells by enzymatically catalyzing the oxidation of ferrous iron to ferric iron and using the energy released from the reaction to promote the growth of thread-like slimes that serve to accumulate large amounts of ferric hydroxide. The ferric iron is drawn onto or into the mucilaginous slimy sheaths of the bacteria. Precipitation of the ferric iron coupled with the rapid growth of the iron bacteria creates a voluminous material that quickly plugs the screen pores of the well and the aquifer material surrounding the well bore (Driscoll 1986, pg. 646).

Water quality data collected from Wells 31551, 31552, 31553, and 31555 indicate that the geochemical changes resulting from the injection process were for the most part limited to the injection well. Well 31551 is the closest observation well. The data show that during the CRT the dissolved oxygen fell from approximately 2.98 to .31 mg/L but the Eh fluctuated between a range of 465 to 358 mv.

Mounding resulting from injection during the CRT was limited to a rather small area immediately surrounding the injection site (Figure 6-13). The geometry of the mound indicates that more mounding occurred upgradient than downgradient.

TABLE 6-1

INCHES OF RAINFALL DURING TESTING PERIOD

Date	Inches of Rainfall
9/23/95	0.00
9/24/95	0.00
9/25/95	0.00
9/26/95	0.00
9/27/95	0.00
9/28/95	0.00
9/29/95	0.00
9/30/95	0.00
10/1/95	0.00
10/2/95	0.00
10/3/95	0.99
10/4/95	0.00
10/5/95	2.46
10/6/95	0.00
10/7/95	0.00
10/8/95	0.00
10/9/95	0.00
10/10/95	0.00
10/11/95	0.00
10/12/95	0.00
10/13/95	0.00
10/14/95	0.03
10/15/95	0.00
10/16/95	0.00
10/17/95	0.00

TABLE 6-2

WATER LEVELS FROM THE CONSTANT RATE INJECTION TEST
(measurements are in feet amsl)

Elapsed Time (minutes)	Wells							
	31551	31552	31553	31554	31555	31556	31550-out	31550-in
	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.049
0	518.855	518.009	518.858	518.861	518.861	518.809	518.859	519.074
0.1	518.855	518.915	518.852	518.867	518.873	518.809	519.380	519.536
0.2	518.899	518.953	518.858	518.905	518.911	518.815	520.550	521.601
0.3	519.006	519.029	518.865	518.981	518.986	518.834	522.846	523.687
0.4	519.145	519.080	518.871	519.056	519.036	518.853	523.859	524.194
0.5	519.240	519.105	518.877	519.101	519.068	518.865	524.331	524.124
0.6	519.297	519.118	518.877	519.120	519.080	518.872	524.602	524.093
0.7	519.329	519.124	518.883	519.132	519.086	518.872	524.633	524.010
0.8	519.348	519.130	518.883	519.139	519.093	518.872	524.633	523.953
0.9	519.360	519.137	518.883	519.139	519.099	518.878	524.677	523.934
1	519.367	519.137	518.890	519.145	519.099	518.878	524.791	523.928
2	519.417	519.162	518.896	519.177	519.130	518.891	525.080	523.922
3	519.430	519.175	518.902	519.189	519.137	518.897	525.074	523.953
4	519.442	519.187	518.909	519.202	519.149	518.903	525.162	523.922
5	519.442	519.187	518.909	519.202	519.149	518.910	525.168	523.915
6	519.449	519.194	518.915	519.208	519.155	518.916	525.049	523.820
7	519.455	519.200	518.915	519.214	519.162	518.916	525.124	523.826
8	519.468	519.213	518.921	519.221	519.168	518.922	525.181	523.871
9	519.480	519.291	518.921	519.233	519.181	518.928	525.301	523.915
10	519.480	519.219	518.921	519.233	519.181	518.922	525.250	523.903
20	519.506	519.244	518.934	519.271	519.212	518.947	525.194	523.871
30	519.537	519.276	518.953	519.322	519.237	519.973	525.326	523.985
40	519.563	519.295	518.971	519.347	519.262	519.998	525.395	524.036
50	519.588	519.320	518.984	519.373	519.281	519.017	525.439	524.099
60	519.601	519.333	518.996	519.385	519.294	519.023	525.471	524.131
70	519.620	519.346	519.003	519.398	519.306	519.036	525.483	524.156
80	519.632	519.358	519.015	519.411	519.319	519.048	525.515	524.207

TABLE 6-2
(Continued)

Elapsed Time (minutes)	Wells							
	31551	31552	31553	31554	31555	31556	31550-out	31550-in
90	519.638	519.364	519.022	519.423	519.331	519.054	525.559	524.207
100	519.664	519.383	519.034	519.442	519.350	519.067	525.710	524.327
200	519.759	519.472	519.110	519.518	519.432	519.143	526.107	524.746
300	519.778	519.497	519.128	519.556	519.463	519.180	526.308	525.006
400	519.790	519.523	519.160	519.581	519.488	519.206	526.434	525.279
500	519.797	519.529	519.172	519.562	519.494	519.218	513.590	525.602
600	516.782	519.535	516.273	519.569	519.513	516.231	526.957	525.951
700	519.879	519.599	519.285	519.600	519.551	519.250	527.884	526.763
800	519.879	519.605	519.285	519.619	519.563	519.269	528.400	527.366
900	519.891	519.617	519.304	519.632	519.576	519.281	528.930	527.988
1000	519.898	519.624	519.310	519.638	519.582	519.294	529.403	528.617
2000	519.936	519.630	519.235	519.651	519.607	519.262	535.556	535.409
3000	519.809	519.554	519.254	519.575	519.538	519.269	538.437	540.125
4000	519.853	519.586	519.210	519.607	519.588	519.269	544.620	548.233

TABLE 6-3

CONSTANT RATE INJECTION TEST
WATER LEVEL RISE IN FEET

Elapsed Time (minutes)	Wells							
	31551	31552	31553	31554	31555	31556	31550-out	31550-in
0	0.000	0.012	0.018	0.000	0.000	0.006	0.018	0.025
0.1	0.000	0.018	0.012	0.006	0.012	0.006	0.439	0.487
0.2	0.044	0.056	0.018	0.044	0.050	0.012	1.609	2.552
0.3	0.151	0.132	0.025	0.120	0.125	0.031	3.905	4.638
0.4	0.290	0.183	0.031	0.195	0.175	0.050	4.918	5.145
0.5	0.385	0.208	0.037	0.240	0.207	0.0062	5.390	5.075
0.6	0.442	0.221	0.037	0.259	0.219	0.069	5.661	5.044
0.7	0.474	0.227	0.043	0.271	0.225	0.069	5.692	4.961
0.8	0.493	0.233	0.043	0.278	0.232	0.069	5.692	4.904
0.9	0.505	0.240	0.043	0.278	0.238	0.075	5.736	4.885
1	0.512	0.240	0.050	0.284	0.238	0.075	5.850	4.879
2	0.562	0.265	0.056	0.316	0.269	0.088	6.139	4.873
3	0.575	0.278	0.062	0.328	0.276	0.094	6.133	4.904
4	0.587	0.290	0.069	0.341	0.288	0.100	6.221	4.873
5	0.587	0.290	0.069	0.341	0.288	0.107	6.227	4.866
6	0.594	0.297	0.075	0.347	0.294	0.113	6.108	4.771
7	0.600	0.303	0.075	0.354	0.301	0.113	6.183	4.777
8	0.613	0.316	0.081	0.360	0.307	0.119	6.240	4.822
9	0.625	0.322	0.081	0.372	0.320	0.125	6.360	4.866
10	0.625	0.322	0.081	0.372	0.320	0.119	6.309	4.854
20	0.651	0.347	0.094	0.410	0.351	0.144	6.253	4.822
30	0.682	0.379	0.113	0.461	0.376	0.170	6.385	4.936
40	0.708	0.398	0.131	0.486	0.401	0.195	6.454	4.987
50	0.733	0.423	0.144	0.512	0.420	0.214	6.498	5.050
60	0.746	0.436	0.156	0.524	0.433	0.220	6.530	5.082
70	0.765	0.449	0.163	0.537	0.445	0.233	6.542	5.107
80	0.777	0.461	0.175	0.550	0.458	0.245	6.574	5.158
90	0.783	0.467	0.182	0.562	0.470	0.251	6.618	5.158

Table 6-3
(Continued)

Elapsed Time (minutes)	Wells							
	31551	31552	31553	31554	31555	31556	31550-out	31550-in
100	0.809	0.486	0.194	0.581	0.489	0.264	6.769	5.278
200	0.904	0.575	0.270	0.657	0.571	0.340	7.166	5.697
300	0.923	0.600	0.288	0.695	0.602	0.377	7.367	5.957
400	0.935	0.626	0.320	0.720	0.627	0.403	7.493	6.230
500	0.942	0.632	0.332	0.701	0.633	0.415	7.493	6.553
600	0.942	0.638	0.433	0.708	0.652	0.428	8.016	6.902
700	1.024	0.702	0.445	0.739	0.690	0.447	8.943	7.714
800	1.024	0.708	0.445	0.758	0.702	0.466	9.459	8.317
900	1.036	0.720	0.464	0.771	0.715	0.478	9.989	8.939
1000	1.043	0.727	0.470	0.777	0.721	0.491	10.462	9.568
2000	1.081	0.733	0.395	0.790	0.746	0.459	16.615	16.360
3000	0.954	0.657	0.414	0.714	0.677	0.466	19.496	21.076
4000	0.998	0.689	0.370	0.746	0.727	0.466	25.679	29.184

TABLE 6-4

CONSTANT RATE INJECTION TEST
CORRECTED WATER LEVEL RISE IN FEET

Elapsed Time (minutes)	Wells							
	31551	31552	31553	31554	31555	31556	31550-out	31550-in
0	0.000	0.012	0.018	0.000	0.000	0.006	0.018	0.025
0.1	0.000	0.018	0.012	0.006	0.012	0.006	0.439	0.487
0.2	0.044	0.056	0.018	0.044	0.050	0.012	1.609	2.552
0.3	0.151	0.132	0.025	0.120	0.125	0.031	3.905	4.638
0.4	0.290	0.183	0.031	0.195	0.175	0.050	4.918	5.145
0.5	0.385	0.208	0.037	0.240	0.207	0.0062	5.390	5.075
0.6	0.442	0.221	0.037	0.259	0.219	0.069	5.661	5.044
0.7	0.474	0.227	0.043	0.271	0.225	0.069	5.692	4.961
0.8	0.493	0.233	0.043	0.278	0.232	0.069	5.692	4.904
0.9	0.505	0.240	0.043	0.278	0.238	0.075	5.736	4.885
1	0.512	0.240	0.050	0.284	0.238	0.075	5.850	4.879
2	0.562	0.265	0.056	0.316	0.269	0.088	6.139	4.873
3	0.575	0.278	0.062	0.328	0.276	0.094	6.133	4.904
4	0.587	0.290	0.069	0.341	0.288	0.100	6.221	4.873
5	0.587	0.290	0.069	0.341	0.288	0.107	6.227	4.866
6	0.594	0.297	0.075	0.347	0.294	0.113	6.108	4.771
7	0.600	0.303	0.075	0.354	0.301	0.113	6.183	4.777
8	0.613	0.316	0.081	0.360	0.307	0.119	6.240	4.822
9	0.625	0.322	0.081	0.372	0.320	0.125	6.360	4.866
10	0.625	0.322	0.081	0.372	0.320	0.119	6.309	4.854
20	0.651	0.347	0.094	0.410	0.351	0.144	6.253	4.822
30	0.682	0.379	0.113	0.461	0.376	0.170	6.385	4.936
40	0.709	0.399	0.132	0.487	0.402	0.196	6.455	4.988
50	0.734	0.424	0.145	0.513	0.421	0.215	6.499	5.051
60	0.747	0.437	0.157	0.525	0.434	0.221	6.531	5.083
70	0.766	0.450	0.164	0.538	0.446	0.234	6.543	5.108
80	0.778	0.462	0.176	0.551	0.459	0.246	6.575	5.159
90	0.784	0.468	0.183	0.563	0.471	0.252	6.619	5.159

TABLE 6-4
(Continued)

Elapsed Time (minutes)	Wells							
	31551	31552	31553	31554	31555	31556	31550-out	31550-in
100	0.810	0.487	0.195	0.582	0.490	0.265	6.770	5.279
200	0.907	0.578	0.273	0.660	0.574	0.343	7.169	5.700
300	0.927	0.604	0.292	0.699	0.606	0.381	7.371	5.961
400	0.941	0.632	0.326	0.726	0.633	0.409	7.499	6.236
500	0.949	0.639	0.339	0.708	0.640	0.422	7.500	6.560
600	0.950	0.646	0.441	0.716	0.660	0.436	8.024	6.910
700	1.034	0.712	0.455	0.749	0.700	0.457	8.953	7.724
800	1.035	0.719	0.456	0.769	0.713	0.477	9.470	8.328
900	1.049	0.733	0.477	0.784	0.728	0.491	10.002	8.952
1000	1.057	0.741	0.484	0.791	0.735	0.505	10.476	9.582
2000	1.109	0.761	0.423	0.818	0.774	0.487	16.643	16.388
3000	0.996	0.699	0.456	0.756	0.719	0.508	19.538	21.118
4000	1.054	0.745	0.426	0.802	0.783	0.522	25.735	29.240

TABLE 6-5
WELL 31550 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	09:19	6.91	1.12	4	3.45	11.1	21	2
10/12/95	16:56	7.25	.715	340	.84	15.6	3.9	5
10/13/95	19:12	6.96	.729	303	1.41	14.6	3.9	4
10/14/95	08:19	6.97	.746	2	1.70	12.0	4.0	2
10/14/95	19:48	7.26	.722	1	1.86	11.9	4.0	2
10/15/95	07:45	7.24	.712	2	5.33	11.0	4.0	2
10/15/95	19:32	6.96	.725	2	1.18	11.6	3.9	2
10/16/95	07:55	7.15	.757	2	1.80	10.0	4.0	10
10/16/95	18:01	7.18	.721	55	2.92	12.6	4.0	2

TABLE 6-6
WELL 31551 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	10:16	6.91	1.25	109	3.91	12.3	73.0	20
10/12/95	19:06	6.84	1.24	150	3.88	15.9	46.0	59
10/13/95	21:14	7.12	.741	90	1.31	13.4	36.0	2
10/14/95	07:43	6.91	.736	15	1.26	12.3	40.0	3
10/14/95	20:24	7.15	.728	1	0.91	11.9	46.0	2
10/15/95	08:26	7.17	.712	1	1.19	11.1	40.0	2
10/15/95	20:15	6.98	.718	7	3.25	11.7	55.0	10
10/16/95	08:30	7.17	.774	2	2.61	10.4	56.0	2
10/16/95	18:36	7.16	.727	3	1.18	12.3	52.0	2

TABLE 6-7
WELL 31552 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	10:34	6.64	1.12	3	2.86	11.7	44.0	2
10/12/95	17:36	7.00	.979	26	3.76	15.1	45.0	12
10/13/95	21:31	7.00	.913	96	3.21	12.9	49.0	40
10/14/95	07:16	6.78	1.02	47	1.88	12.0	22.0	5
10/14/95	21:33	6.92	.830	10	1.31	11.7	34.0	2
10/15/95	08:29	6.91	.756	101	0.77	11.0	30.0	96
10/15/95	21:17	7.04	.701	3	2.31	11.8	31.0	2
10/16/95	09:15	6.73	.712	14	1.27	11.4	29.0	2
10/16/95	20:20	7.15	.683	21	2.61	11.6	31.0	23

TABLE 6-8
WELL 31553 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	09:23	7.12	.880	>999	3.91	9.9	58.0	417
10/12/95	16:46	7.12	.660	316	2.30	17.1	29.0	71
10/13/95	20:42	7.04	.752	312	2.26	12.9	31.0	101
10/14/95	10:49	6.90	.814	22	2.34	11.0	31.0	6
10/14/95	20:54	6.97	.794	10	2.26	10.9	31.0	6
10/15/95	07:30	6.89	.794	131	1.82	10.3	35.0	47
10/15/95	20:37	6.84	.734	29	3.27	11.3	35.0	4
10/16/95	08:19	6.81	.753	80	2.08	10.9	34.0	6
10/16/95	19:25	6.98	.693	22	3.19	11.4	20.0	6

TABLE 6-9
WELL 31554 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	13:05	6.97	.978	>999	4.71	12.1	100.0	2802
10/12/95	18:36	7.01	.889	>999	3.47	14.4	90.0	1090
10/13/95	19:06	7.09	.858	419	4.41	14.2	74.0	92
10/14/95	08:53	6.80	.948	144	3.37	11.6	79.0	65
10/14/95	19:24	6.78	1.11	208	3.18	11.6	80.0	60
10/15/95	09:42	6.81	1.11	207	2.50	10.5	79.0	106
10/15/95	19:20	6.78	.824	51	2.27	11.9	72.0	12
10/16/95	10:27	7.78	.485	28	3.68	10.5	39.0	67
10/16/95	18:02	7.14	.642	304	3.01	12.7	56.0	37

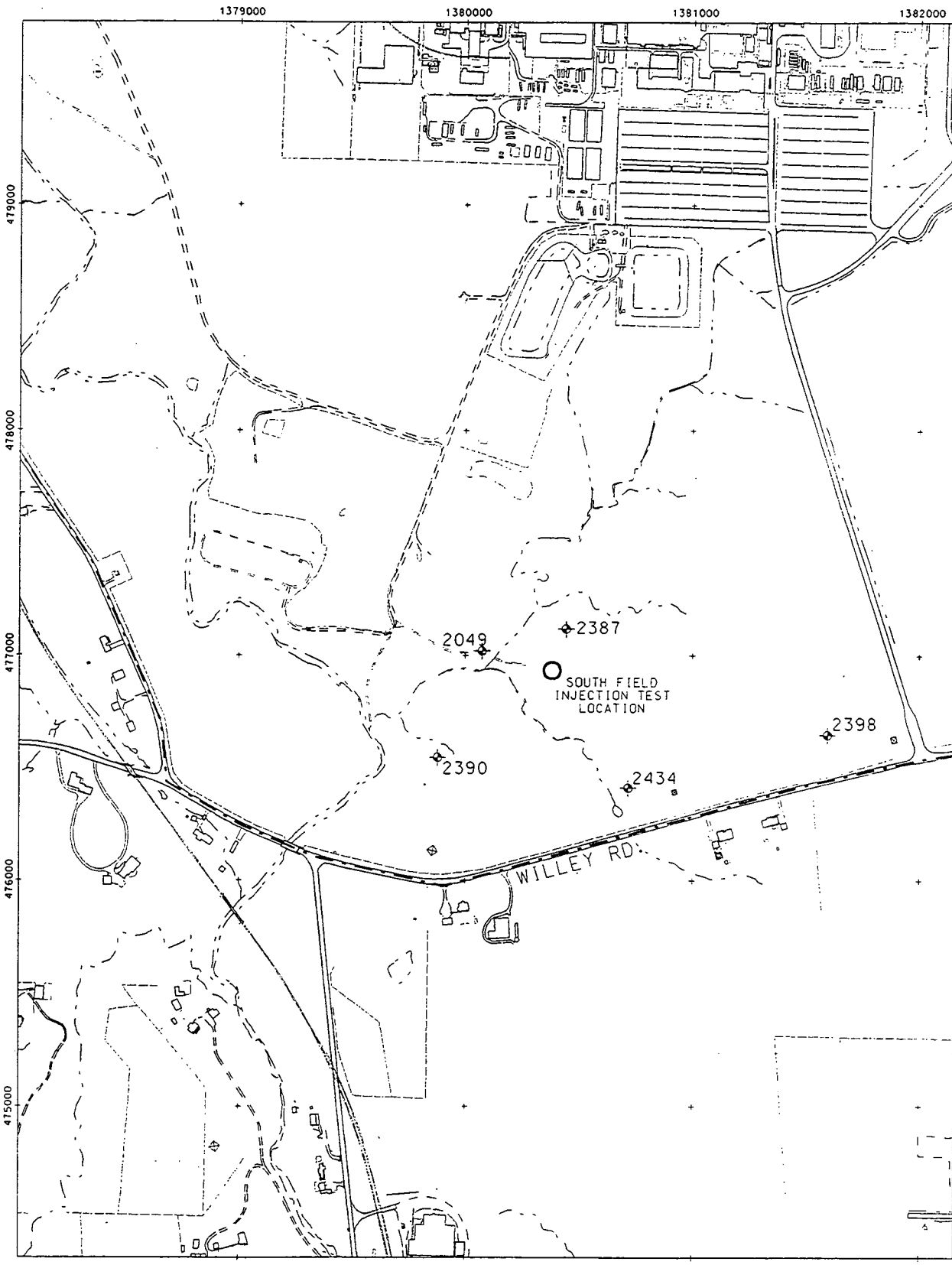
TABLE 6-10
WELL 31555 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	11:45	7.11	1.03	275	4.80	12.1	29.0	276
10/12/95	18:09	7.01	.954	191	3.24	15.9	27.0	46
10/13/95	20:04	7.06	.970	251	3.45	12.7	30.0	9
10/14/95	09:33	6.84	1.10	3	2.80	11.2	32.0	2
10/14/95	21:24	7.07	1.10	1	3.23	11.1	31.0	2
10/15/95	09:14	6.78	.825	1	1.94	11.4	25.0	2
10/15/95	21:21	7.03	.728	4	1.08	11.7	22.0	2
10/16/95	09:54	7.04	.746	1	2.35	10.3	23.0	2
10/16/95	19:18	7.09	.719	9	1.84	12.3	22.0	2

TABLE 6-11
WELL 31556 WATER QUALITY RESULTS

Date	Time (military)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (C°)	Total Uranium (μg/L)	Total Suspended Solids (mg/L)
10/09/95	11:58	7.07	.785	>999	3.63	11.2	23.0	2275
10/12/95	19:22	7.22	.716	486	5.38	13.6	17.0	140
10/13/95	19:51	7.32	.783	94	3.21	12.6	18.0	7
10/14/95	10:11	6.94	.870	15	2.53	10.8	22.0	6
10/14/95	20:15	6.97	.873	64	2.39	10.8	23.0	20
10/15/95	10:28	6.95	.97	71	2.35	10.0	20.0	33
10/15/95	20:02	6.93	.849	67	3.53	11.3	24.0	12
10/16/95	11:15	7.40	.889	65	2.10	10.6	22.0	4
10/16/95	18:43	6.95	.817	10	4.29	11.7	19.0	24

/USR/ERMA1/CRU5/DGN/INJECTION/PRTSTWEL.DGN FER STATE PLANAR COORDINATE SYSTEM 1927



LEGEND:

TEST LOCATION

FEMP BOUNDARY

OBSERVATION WELLS

SCALE

650 325 0 650 FEET

DRAFT

FIGURE 6-1. FIVE WELLS MONITORED AROUND INJECTION TEST SITE

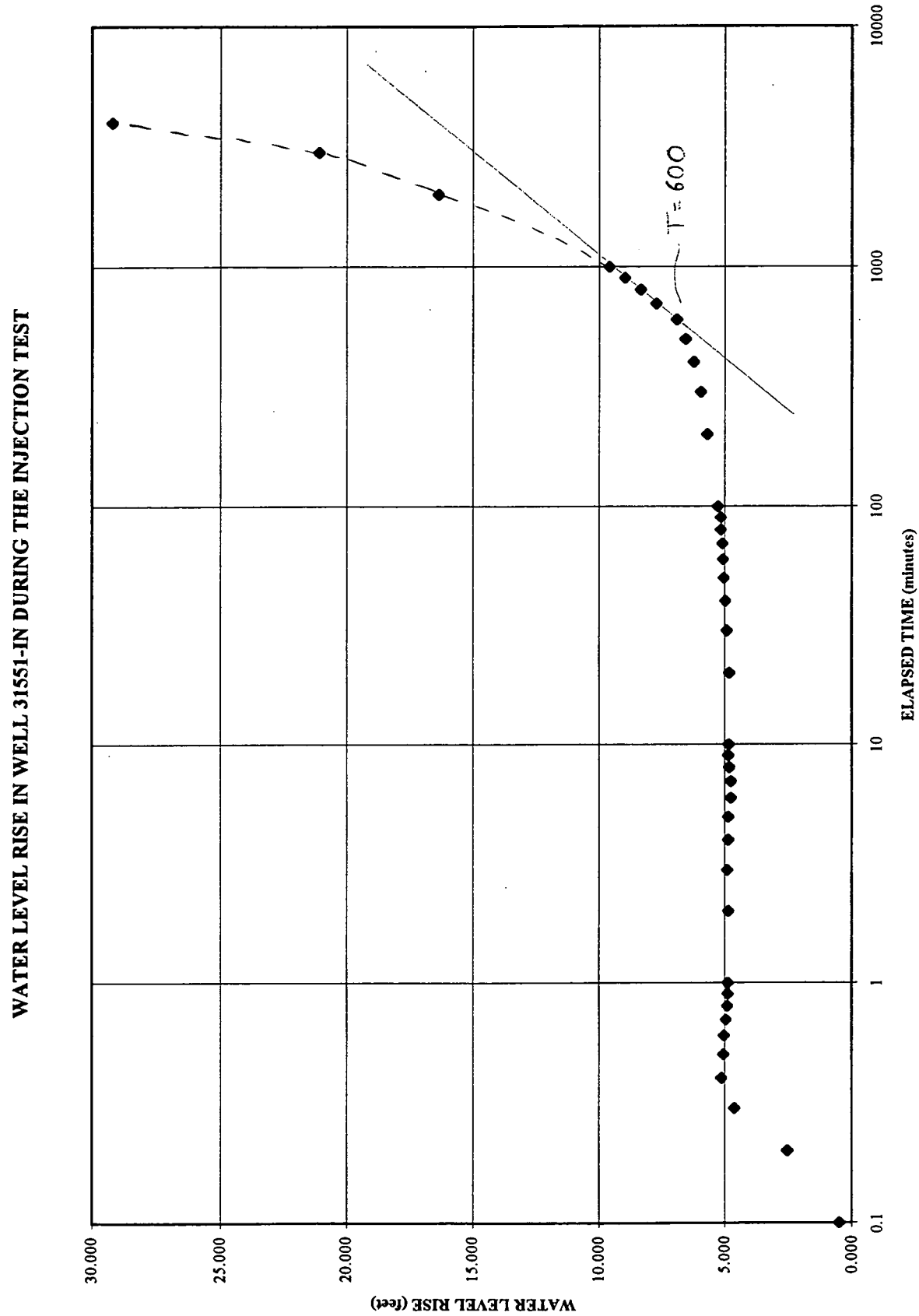


FIGURE 6-2. INJECTION TEST WATER LEVELS IN WELL 31550 - IN

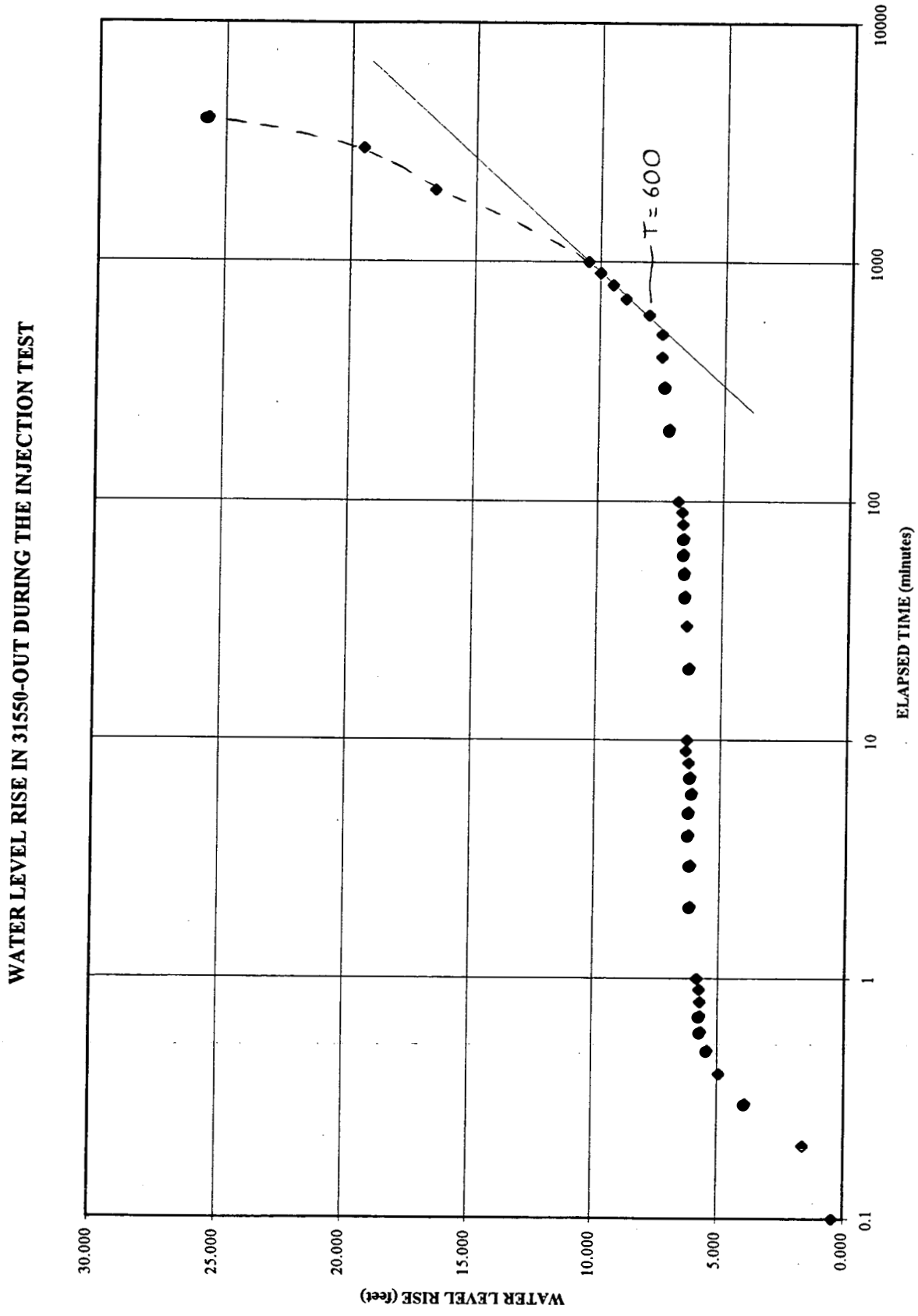


FIGURE 6-3. INJECTION TEST WATER LEVELS IN WELL 31550 - OUT

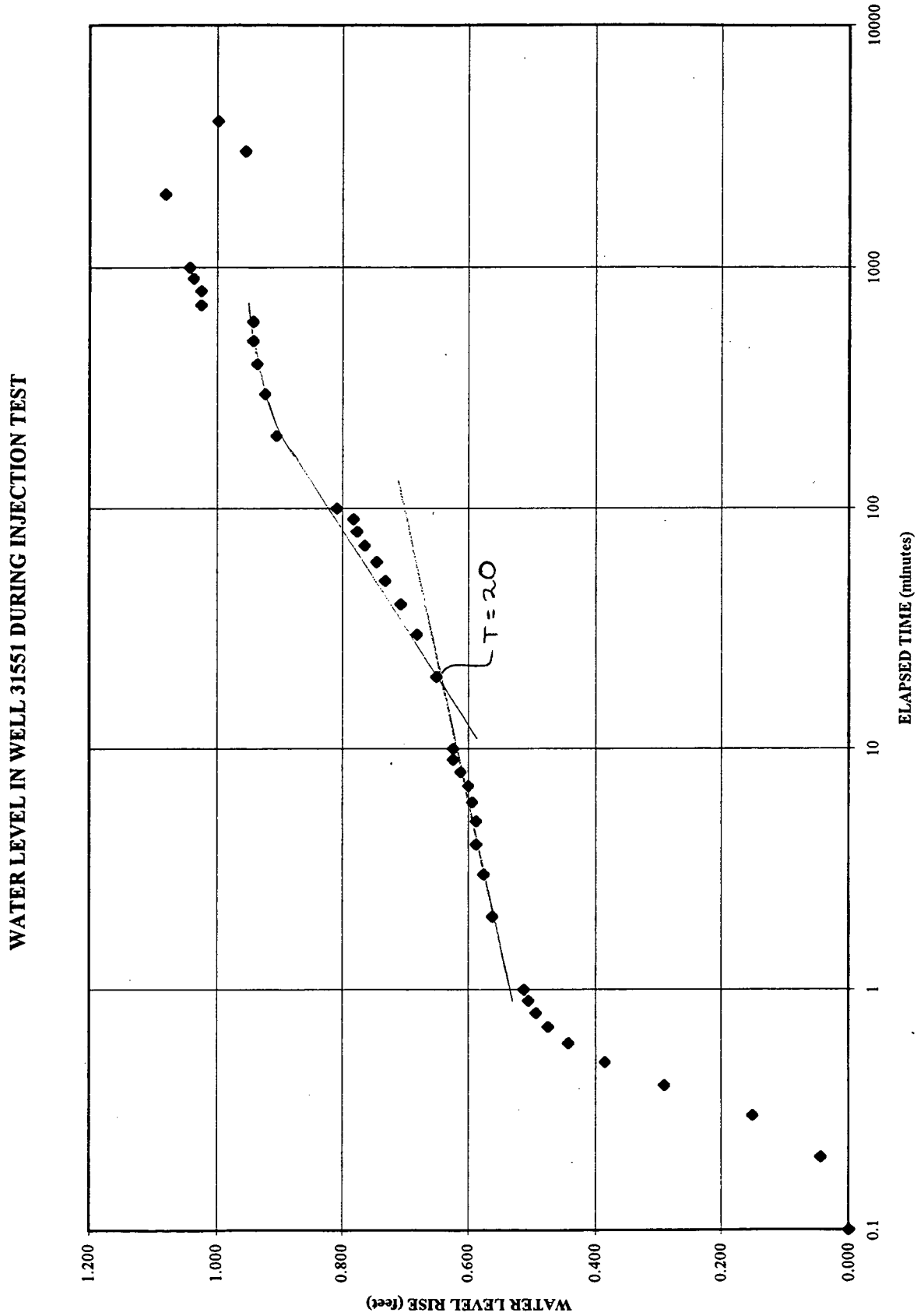


FIGURE 6-4. INJECTION TEST WATER LEVELS IN WELL 31551

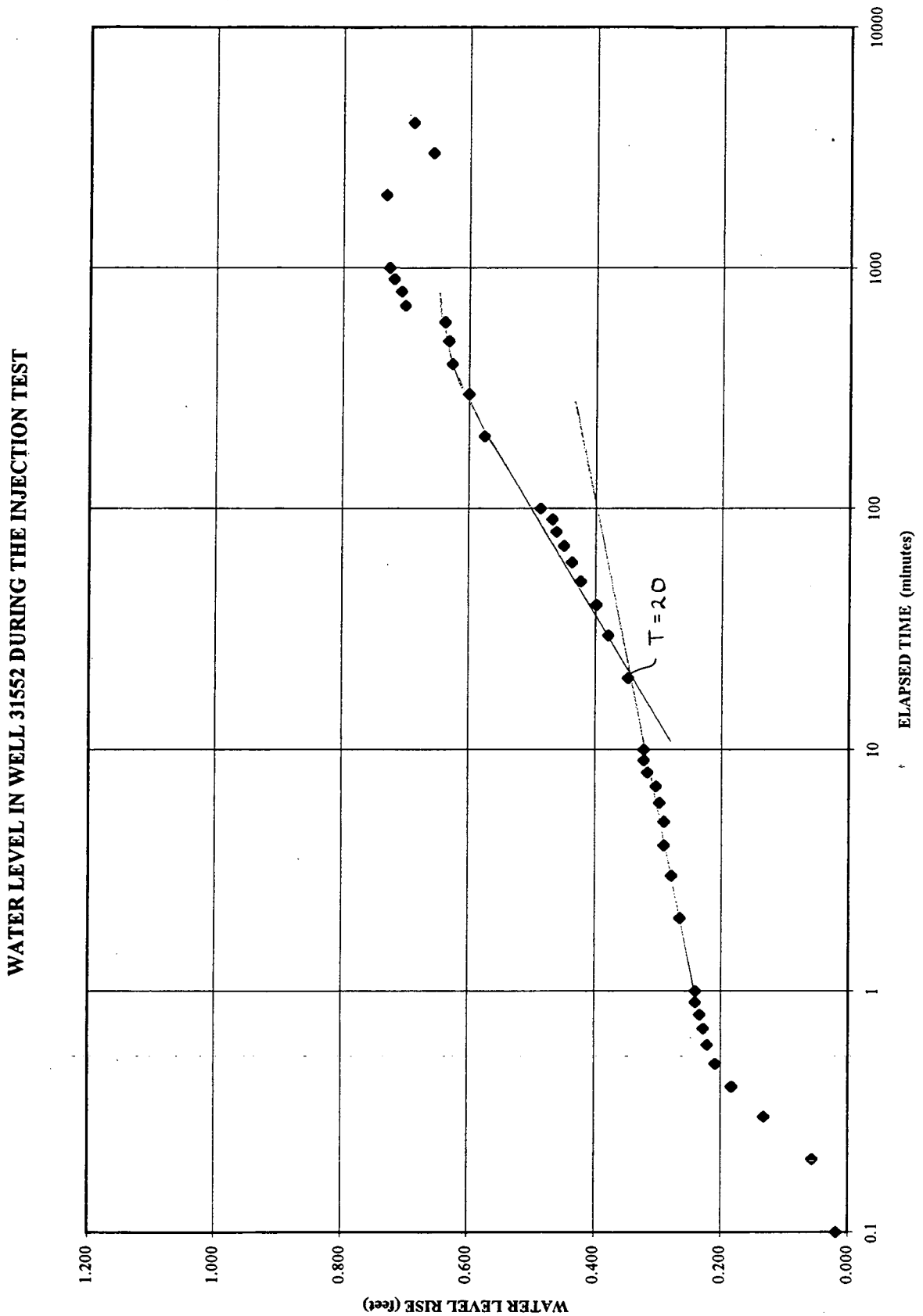


FIGURE 6-5. INJECTION TEST WATER LEVELS IN WELL 31552

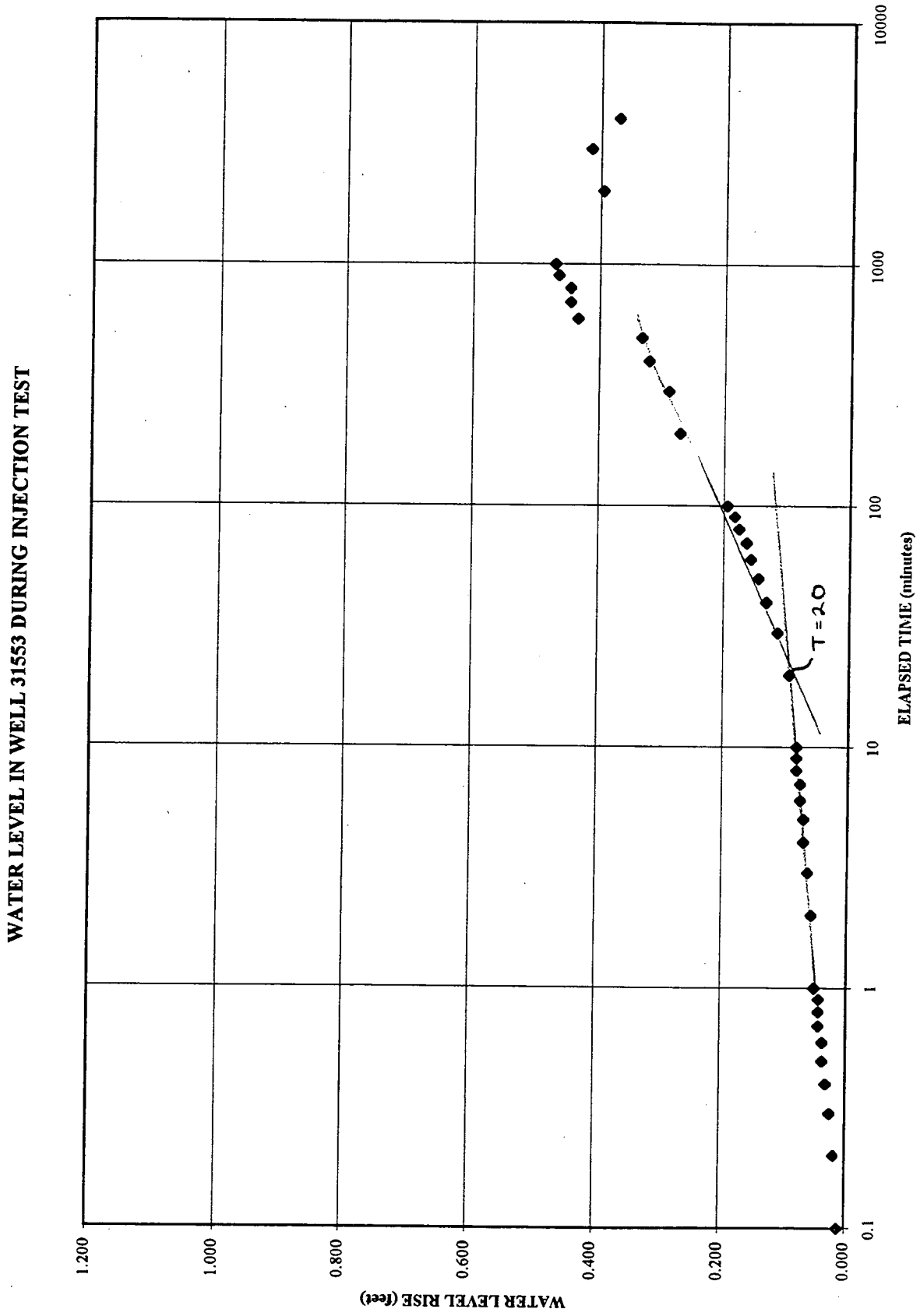


FIGURE 6-6. INJECTION TEST WATER LEVELS IN WELL 31553

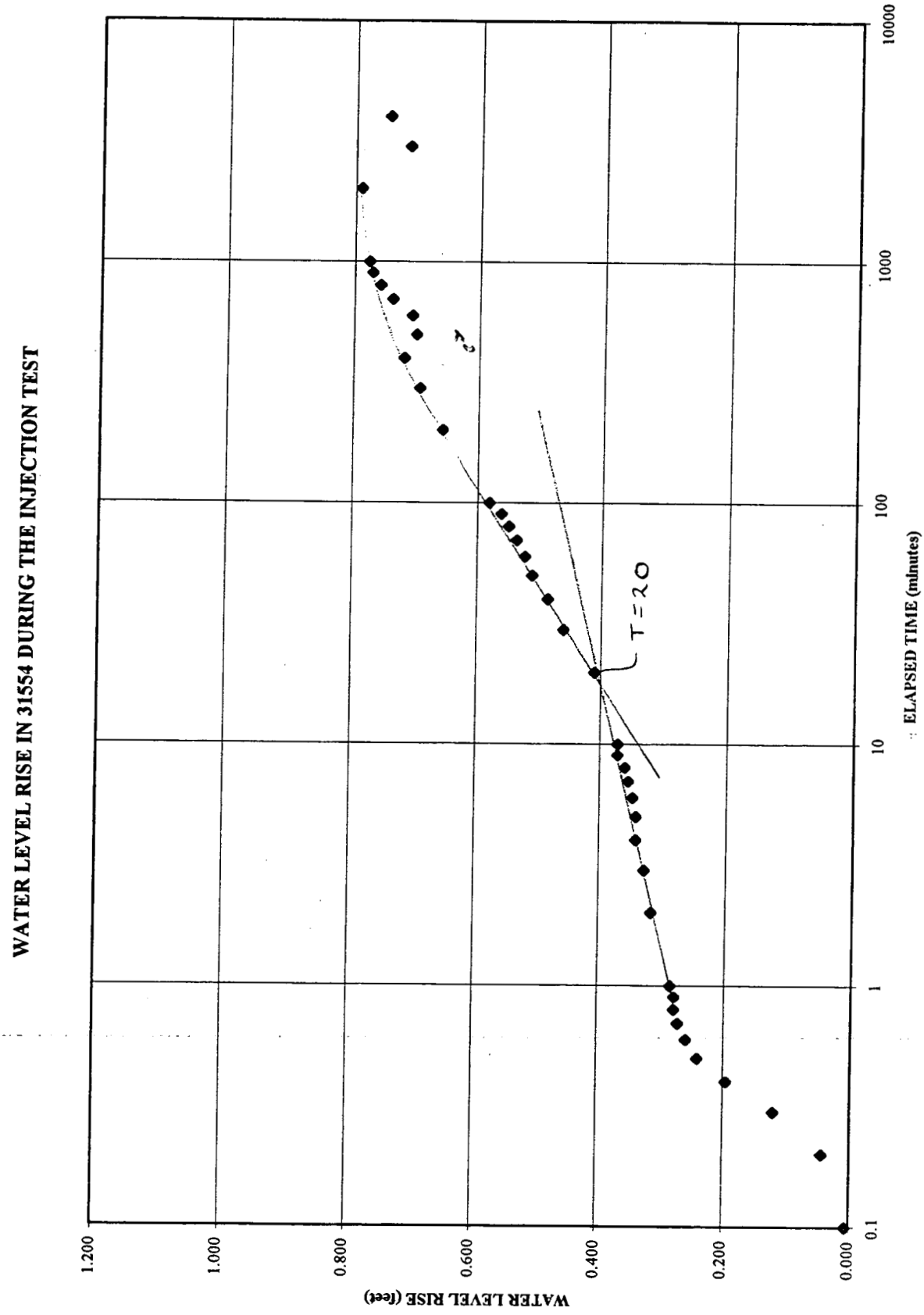


FIGURE 6-7. INJECTION TEST WATER LEVELS IN WELL 31554

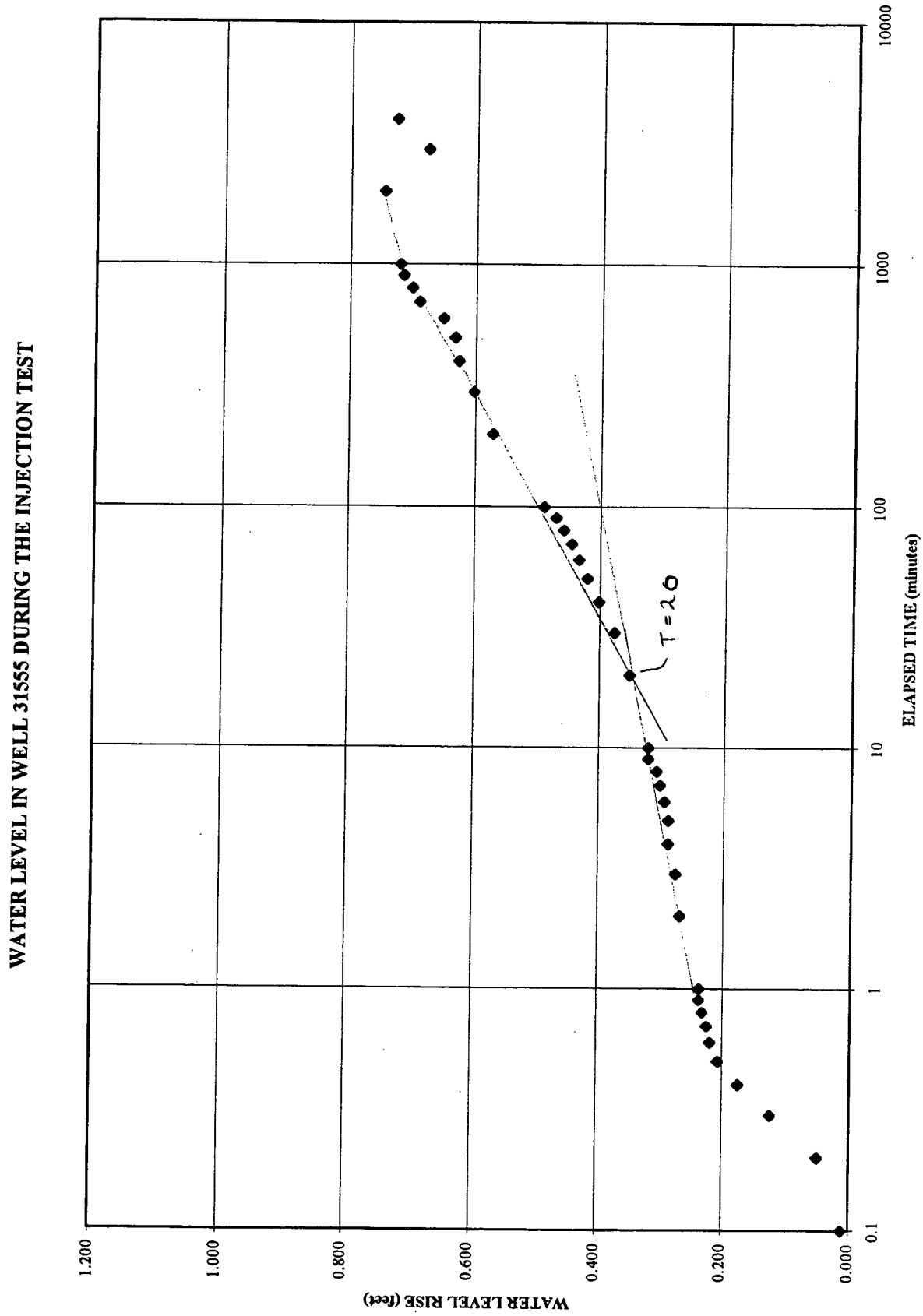


FIGURE 6-8. INJECTION TEST WATER LEVELS IN WELL 31555

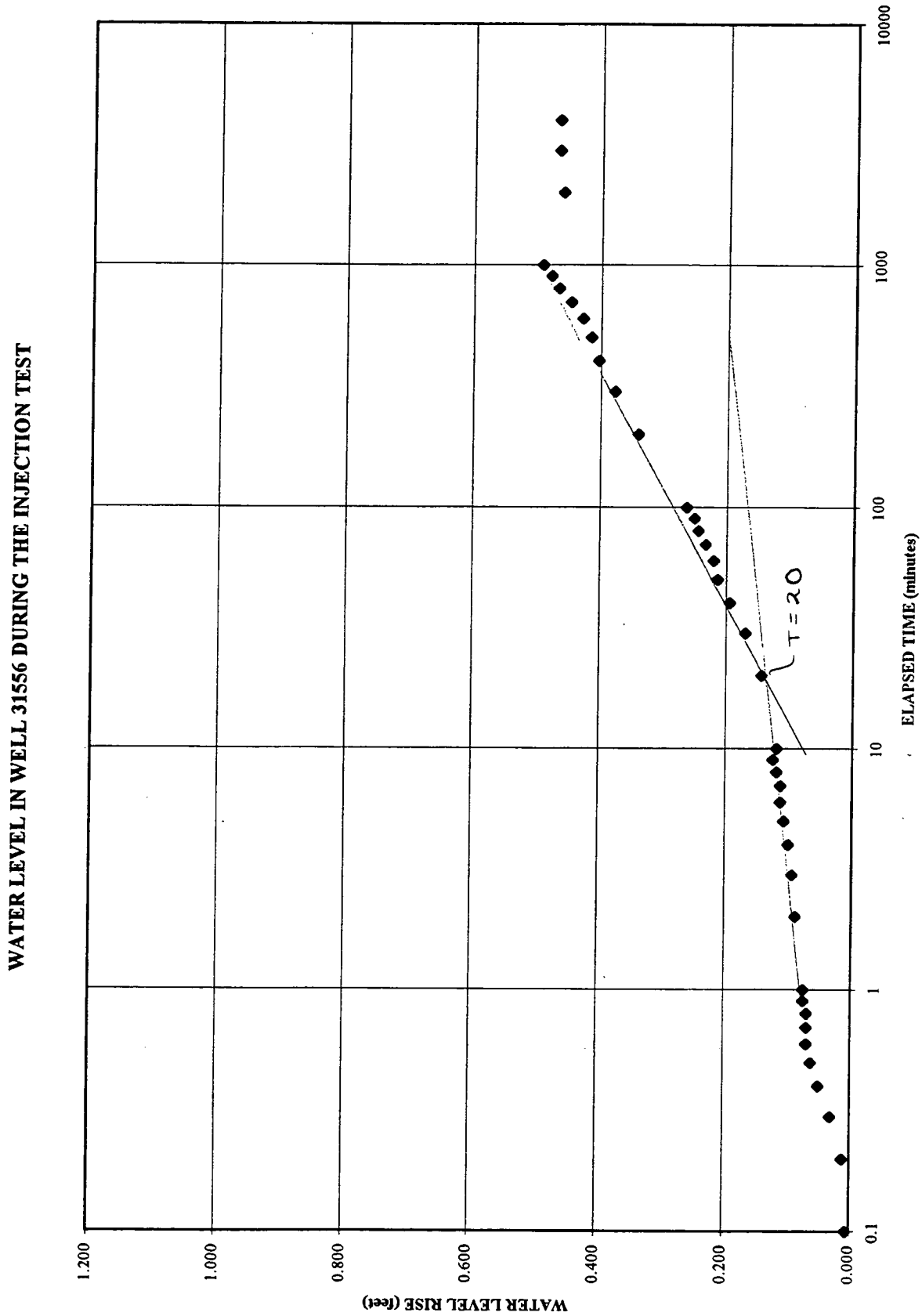


FIGURE 6-9. INJECTION TEST WATER LEVELS IN WELL 31556

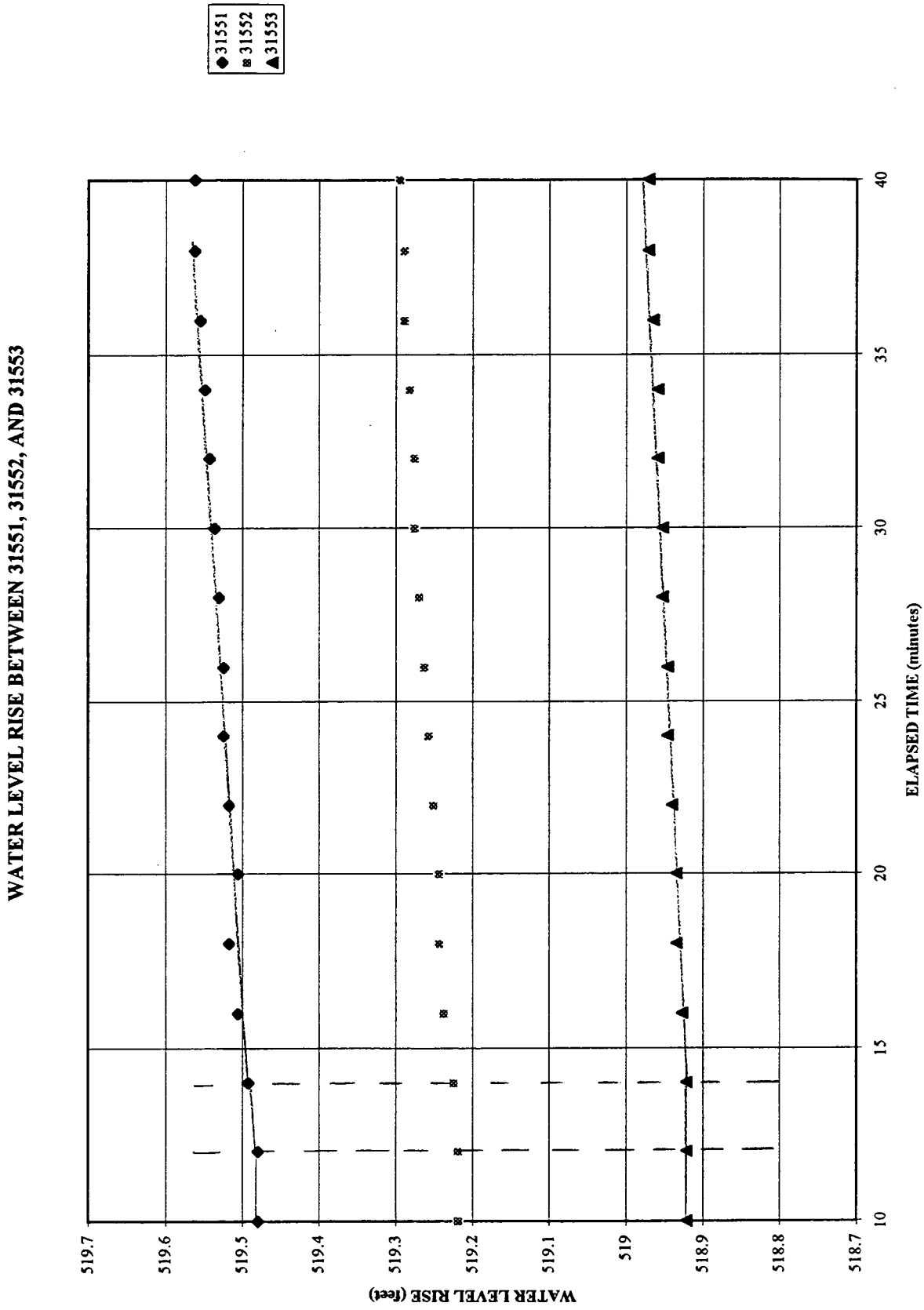


FIGURE 6-10. WATER LEVEL RISE BETWEEN 31551, 31552, AND 31553

G:\HYDRPROB\CINJRDX

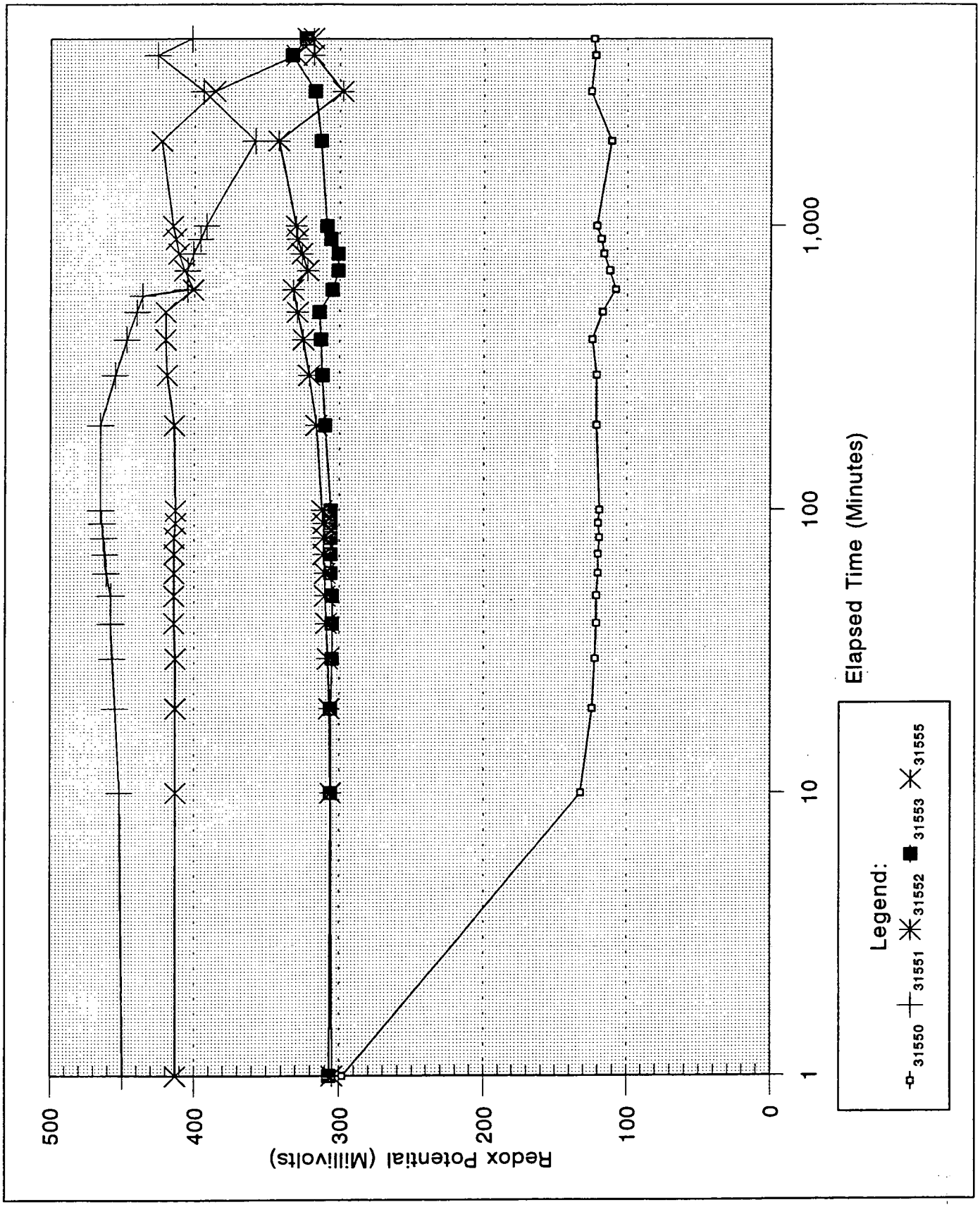


FIGURE 6-11. SOUTH FIELD CONSTANT RATE INJECTION TEST - REDOX vs. ELAPSED TIME

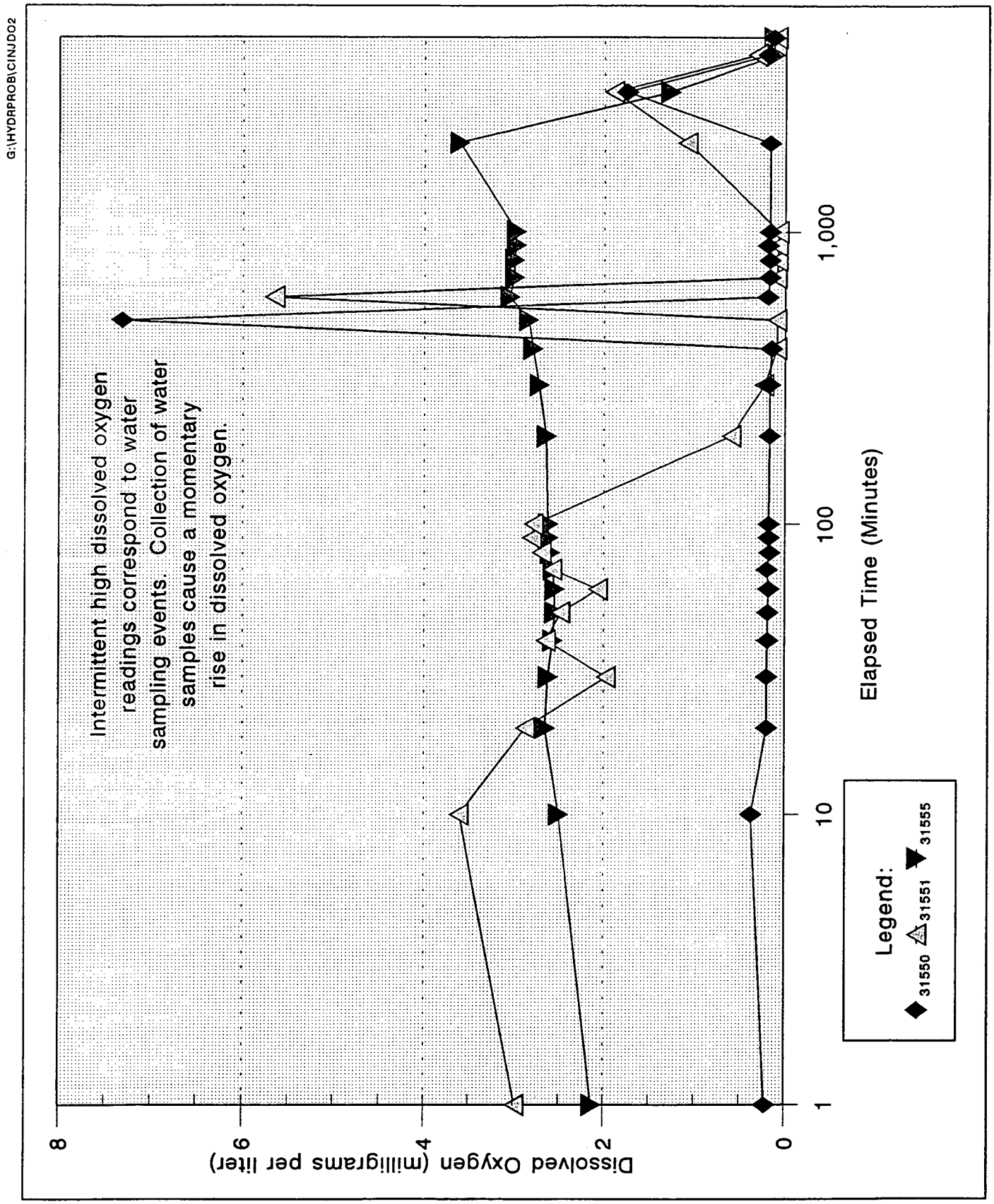
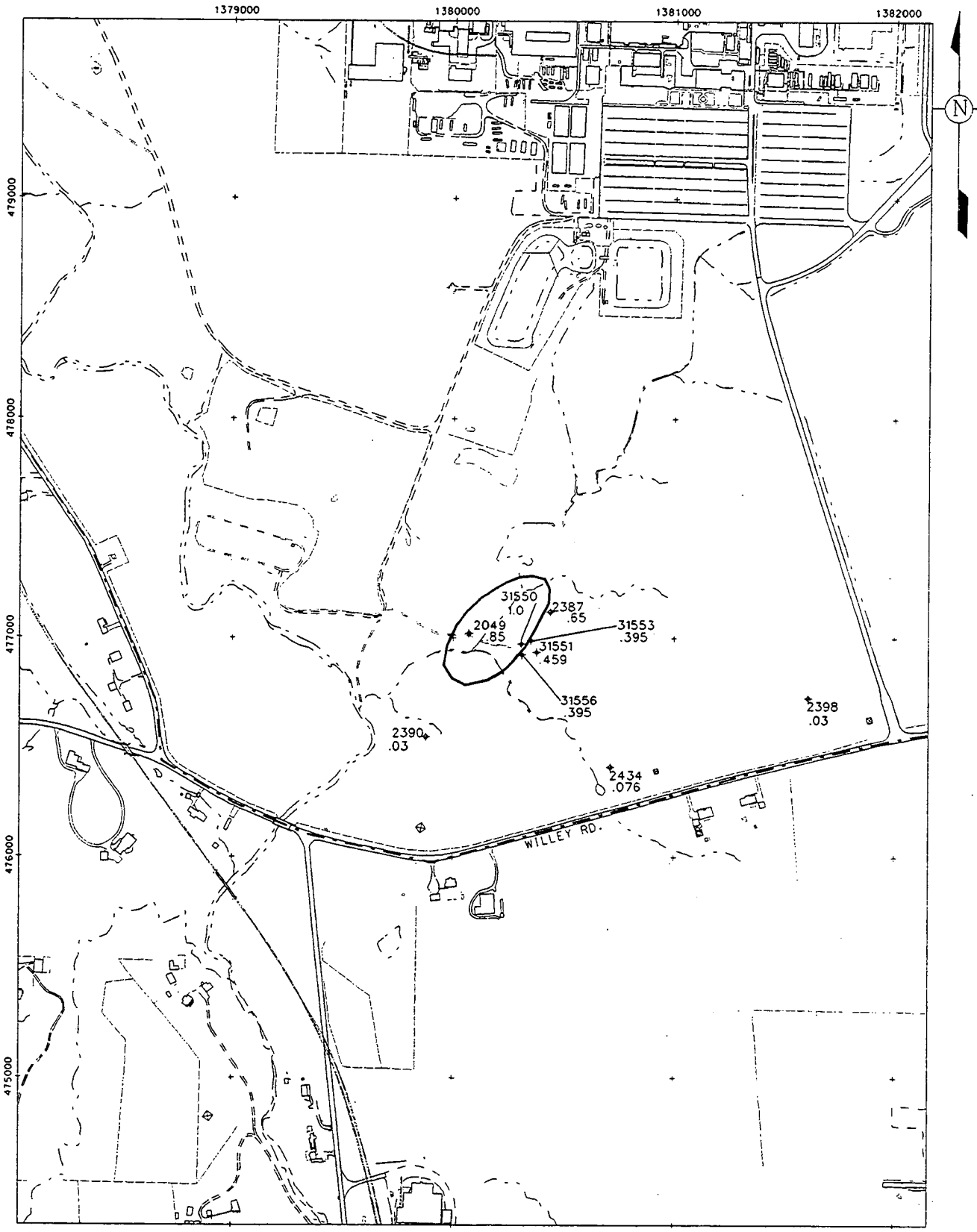


FIGURE 6-12. SOUTH FIELD CONSTANT RATE INJECTION TEST -DISSOLVED OXYGEN vs. ELAPSED TIME

/USR/ERMA1/CRU5/JECTION/C5JEC008.DGN FER OU5 11/17/95 STATE PLANAR COORDINATE SYSTEM 1927



LEGEND:

2166 OBSERVATION WELL

.37 FEET OF RISE

FEMP BOUNDARY

.5 FOOT WATER LEVEL RISE

SCALE

650 325 0 650 FEET

DRAFT

FIGURE 6-13. MOUNDING WHICH RESULTED FROM THE INJECTION TEST AT AN ELAPSED TIME OF 2000 MINUTES

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Section 7.0

7.0 PNEUMATIC AND VACUUM SLUG TESTING OF INJECTION WELL 31550

A series of slug tests were conducted on the 12-inch diameter injection well (31550) before injection to establish baseline hydraulic conditions for the well. A series of slug tests were also conducted following the long-term injection test to determine if any change in hydraulic conditions had occurred as a result of the test.

The slug tests used a sealed wellhead apparatus allowing the application of either pressure or vacuum into the well to displace water standing in the well casing (Figures 7-1 and 7-2). Pneumatic slug tests create rising head tests where the water in the well is lowered to a predetermined level by air pressure, held constant to obtain equilibrium conditions, and allowed to recover by releasing the pressure through a ball valve. Vacuum slug tests create a falling head test where the water level is raised in the well to a predetermined level, held constant to obtain equilibrium conditions, and allowed to recover by releasing the vacuum through a ball valve.

7.1 PREINJECTION SLUG TESTING

The first series of slug tests conducted on the injection well took place on October 10, 1995. The tests were conducted by securing the wellhead apparatus on the 12-inch well casing and, once attached, measuring the static water level using the top of the apparatus as the reference point. The water level indicator probe was then raised exactly 10.0 feet and set in preparation for the first vacuum slug test. A pressure transducer was placed down the well and lowered into the water approximately two feet. The wellhead was then sealed and the pressure transducer line was connected to the data logger. Once water levels stabilized in the well, the static pressure transducer reading was recorded and a vacuum was applied to the well. The vacuum continued until the water level indicator signaled that a 10-foot rise in the water level had been achieved. A small vent was opened on the wellhead apparatus to release a portion of the vacuum, allowing the displaced water level to stabilize at the 10-foot mark. The water level was held in this position for approximately 5 minutes to allow the aquifer to reequilibrate. The data logger was then set to record water levels at 5 times per second, switched on, and the vacuum was released through the 2-inch ball valve.

The 10-foot vacuum test was conducted again to determine repeatability. In addition, a 20-foot displacement test was attempted using the vacuum method, but was aborted after vacuum levels began to distort the wellhead vacuum seals.

After completion of the vacuum slug tests, the equipment was reconfigured for conducting pneumatic tests. The pressure transducer was lowered to a depth of approximately 12-feet below the static water level. The water level indicator was lowered exactly 10-feet into the water to indicate when the water level was depressed the desired amount. Once the equipment stabilized, pressure was slowly added to the well, pushing the water level down. However, due to such a large-diameter well, the force on the wellhead apparatus at 4 psi was enough to break the seal between the well casing and the rubber boot of the wellhead apparatus, allowing the pressure to escape. Due to this complication, the pneumatic tests were aborted.

When the vacuum tests were completed, the data were transferred from the data logger to a portable computer where the data was inspected to determine if the recording equipment functioned properly. Once the data were field verified the equipment was removed from the area, allowing injection testing to proceed.

7.2 POSTINJECTION SLUG TESTING

After completion of the constant rate injection test, water levels in the injection well and surrounding observation wells were allowed to recover for 24 hours. When full recovery of the aquifer was verified, a series of vacuum slug tests were conducted on October 17, 1995 in the injection well. Three 10-foot vacuum displacement tests were conducted in order to determine reproducibility and compare results with the preinjection slug test results. Pneumatic tests were not attempted due to the problems encountered during preinjection testing.

7.3 SLUG TEST RESULTS

The data set for each slug test was imported into a computer spreadsheet program for manipulation. Once the data was in a proper format, it was imported into AQTESOLV™, a computer program designed to interpret aquifer test data, such as slug test data on unconfined aquifers. The method selected was the Bouwer & Rice slug test method to determine the hydraulic conductivity of the material immediately around the well bore. Individual data plots created by AQTESOLV™ and their associated raw data sets are presented in Appendix E. It should be noted that not all the data was able to be imported into AQTESOLV™ due to its limit of 200 data pairs. In order to use each data set, time/water level data were "thinned," selecting the optimum time interval providing 200 data pairs. Results of the vacuum slug testing are summarized in Table 7-1.

As shown in Table 7-1, the hydraulic conductivity value of the well/aquifer system before injection was approximately 240 ft/day. After injection, the well showed a significant drop in hydraulic conductivity, from 240 to approximately 40 ft/day. This was most likely due to clogging of the well screen and filter pack with ferric iron precipitation and iron bacterial growth.

TABLE 7-1

HYDRAULIC CONDUCTIVITY VALUES CALCULATED FROM THE PRE- AND POSTINJECTION VACUUM SLUG TESTS CONDUCTED ON INJECTION WELL 31550

			Hydraulic Conductivity	
Slug Test Number		Date	Ft/Second	Ft/Day
Preinjection	1	10/10/95	0.002795	241.5
	2	10/10/95	0.002784	240.5
	3	10/10/95	0.002755	238.0
Postinjection	1	10/17/95	0.0004501	38.9
	2	10/17/95	0.0004316	37.3
	3	10/17/95	0.0004703	40.9

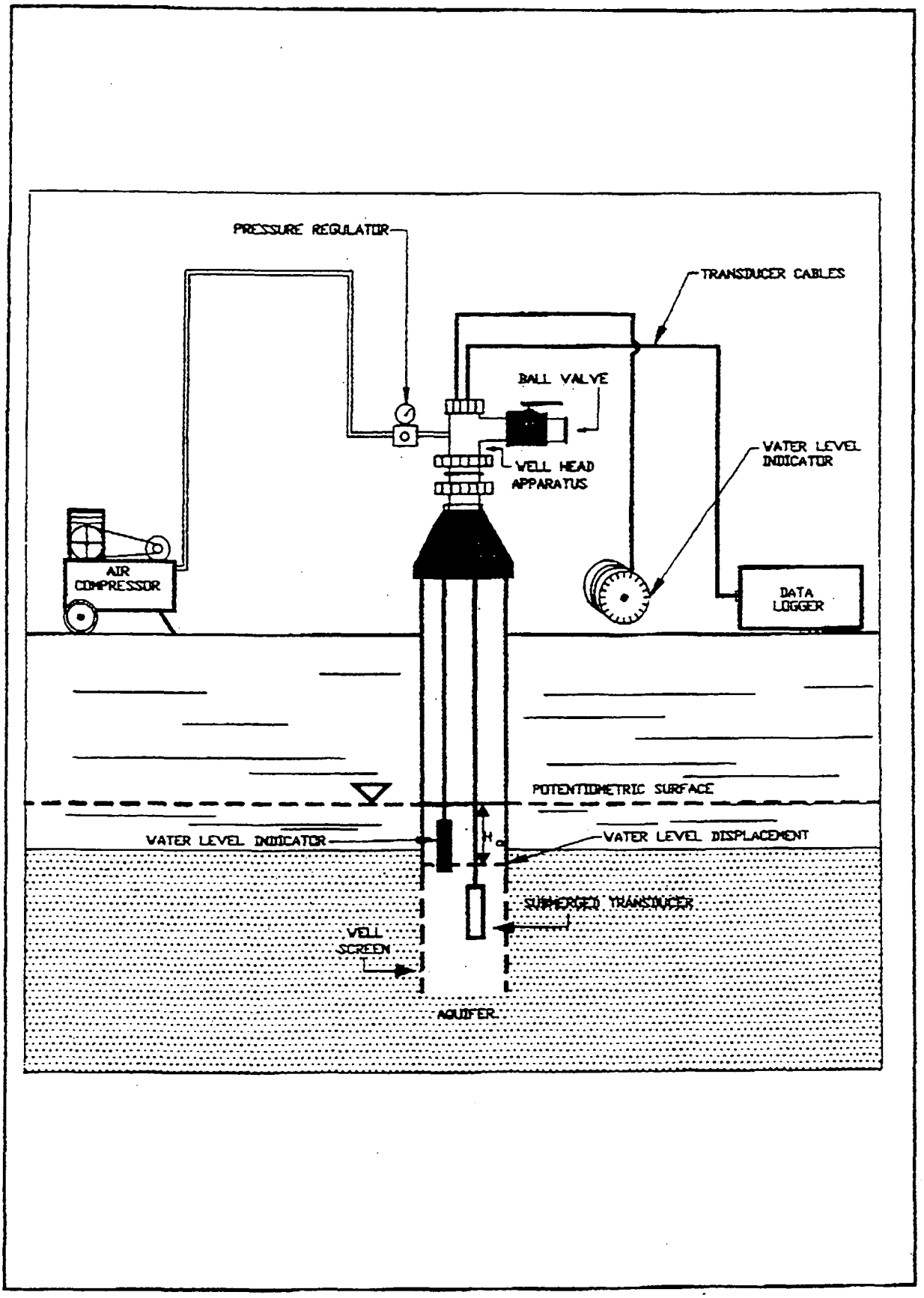

FIGURE 7-1. PNEUMATIC SLUG TEST EQUIPMENT SETUP

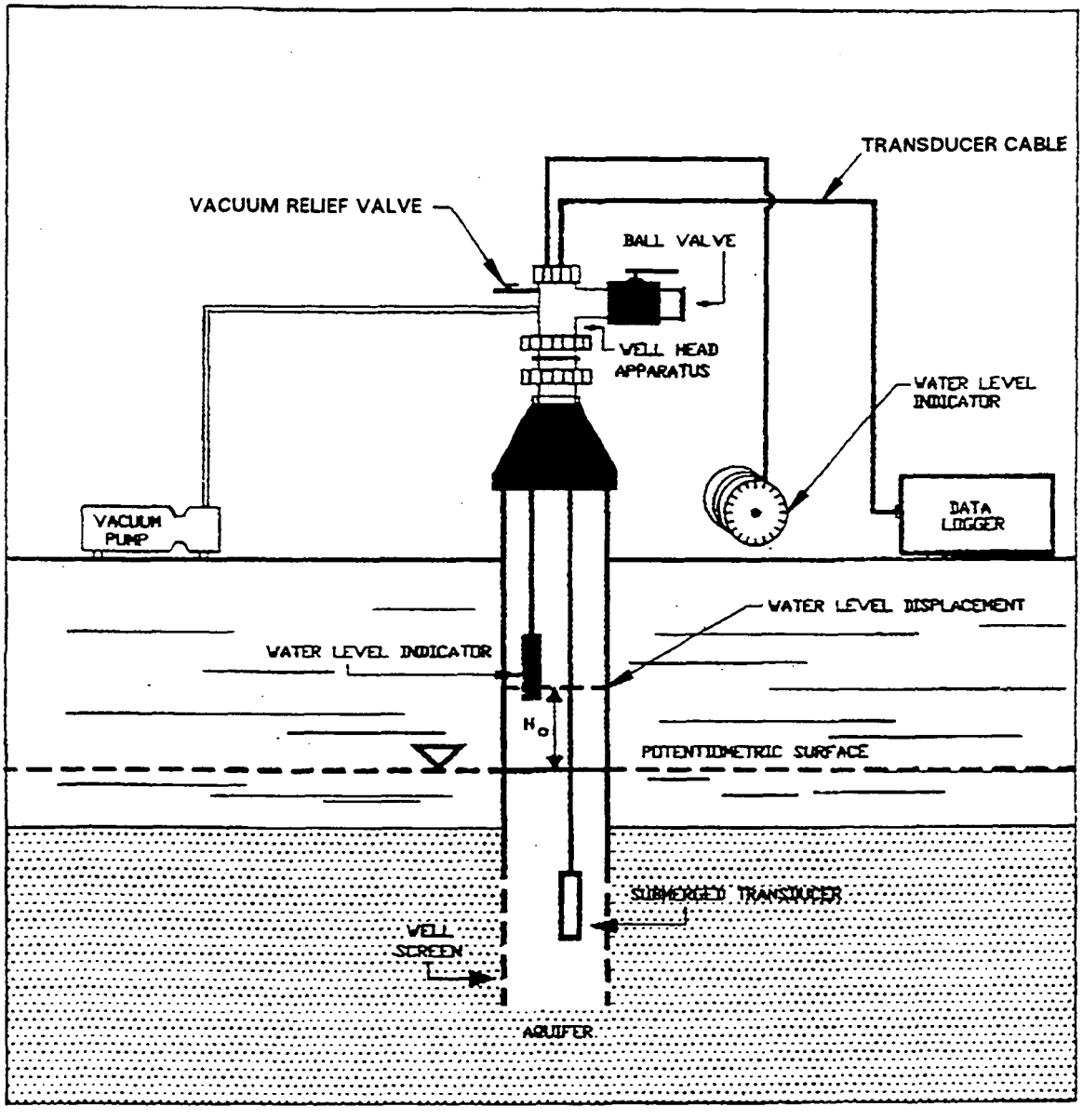

FIGURE 7-2. VACUUM SLUG TEST EQUIPMENT SETUP

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Section 8.0

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

Results of the South Field injection test indicate that injection can be a viable supplement to extraction for the remediation of the Great Miami Aquifer, based upon the demonstrated ability of the aquifer to receive injected water. However, the issue of mixing waters with similar chemistry and the precipitation of iron hydroxide within the injection well and surrounding aquifer needs to be further evaluated. Specific results are summarized below.

- The injection test confirms that the hydraulic characteristics of the Great Miami Aquifer are favorable for supporting injection and shows that the aquifer can accept water at injection rates of 450 gpm or higher (see Section 5).

- The water table surrounding the injection well did not exhibit excessive mounding during the injection test (see Section 6), indicating that the injected water was efficiently flushed away from the well and out into the aquifer.

- Actual field conditions and modeled predictions of the water table rise due to injection are in close agreement. Modeling predicted that at an injection rate of 300 gpm the water table around the injection well would rise approximately 1.35 feet (Figure 8-1); the recorded rise was approximately 1 foot, indicating that the groundwater model currently being used to assess the benefits of injection is predicting realistic hydraulic effects.

- Specific injectivities calculated during the injection test for the injection well are very similar to specific capacities calculated for the same well during the South Plume pumping test (see Section 5.4). This indicates that before plugging, the injection well could supply water to the aquifer about as efficiently as it could extract it.

- Plugging within the injection well was a problem. During the South Field injection test groundwater under relatively reducing conditions (pH near neutral and Eh <200 mv) was pumped and injected into groundwater under relatively oxidizing conditions (pH near neutral and Eh >200 mv). As a result of the mixing, the chemistry of the in situ groundwater immediately surrounding the injection well in the South Field changed. Dissolved oxygen dropped below 1 mg/L and Eh dropped below 200 mv. This change in water chemistry caused ferrous iron in the injection water to oxidize to ferric iron which then hydrolyzed to form iron hydroxide precipitate. *Gallionella* iron bacteria served as a catalyst to the oxidation reaction, using energy released from the reaction to form thread-like slimes. The slimy material attracted the ferric iron, creating an orange-red slimy mass that clogged the well screen. Visual inspection of the injection piping and the well screen following the test verified the presence of the ferric iron staining and screen plugging. Water samples collected following the injection test confirmed the lack of ferrous iron and the presence of ferric iron. Microscopic examination of the slimy material in the well verified the presence of the bacteria.

- Slug tests conducted before and after the injection process document a drop in hydraulic efficiency of the injection well after the test. Before injection, slug test results indicated a hydraulic conductivity of 240 ft/day. After injection, slug test results indicated a hydraulic conductivity of only 39.03 ft/day.

Geochemical data indicate that the problem of plugging within the injection well, created by oxidation of ferrous iron, can be avoided during future injection activities by only mixing waters that have similar or compatible chemistries. Groundwater from Wells 3926 and 3927 of the South Plume extraction system (outside of the 20 μg/L total uranium plume) was used for the injection test because piping existed to get the groundwater to the injection site and it was thought that the waters were similar in chemistry. If injection is used at the FEMP as part of aquifer remediation a more oxidized source of injection water would be used (e.g., treated groundwater). Ferric iron hydroxide should not precipitate if waters with similar oxidized conditions are mixed. By eliminating the precipitation of iron hydroxide in the injection well, energy will not be available for the *Gallionella* iron bacteria within the well to multiply.

The precipitation of iron hydroxide in the injection well during the injection test implies that the precipitation could occur in any part of the Great Miami Aquifer where reduced and oxidized waters are mixed. The effect that this geochemical process could have on the remediation effort in general needs to be further evaluated. Uranium is strongly attracted to iron hydroxide which readily sorbs to soil. In essence, iron hydroxide could adsorb to material within the Great Miami Aquifer if conditions are right for its precipitation. For instance, pumping at high rates within the Great Miami Aquifer could cause relatively reduced water from lower depths of the aquifer to be pulled upward into relatively oxidized water at shallower depths and create conditions which are favorable for the precipitation of iron hydroxide. If pumping can create geochemical conditions which are favorable for the precipitation of iron hydroxide, uranium contamination could become sorbed to the aquifer soil before it has a chance to be extracted through a pumping well. Current understanding of geochemical conditions in the aquifer indicate that once uranium is sorbed to the soil, it would probably remain sorbed unless conditions change from oxidizing to reducing.

In conclusion, the South Field injection test achieved the major objectives presented in Section 1. Iron plugging did occur within the injection well but can likely be avoided in the future if a more oxidized source of injection water is used. The water table of the Great Miami Aquifer rose approximately 1 foot in the immediate area of the injection well during the 72-hour injection test,

indicating that the aquifer can readily accept injection at a rate of up to 450 gpm. Actual water level rises produced during the injection test were in close agreement with modeled predictions. Finally, the mechanical setup used for the injection test functioned as it was designed.

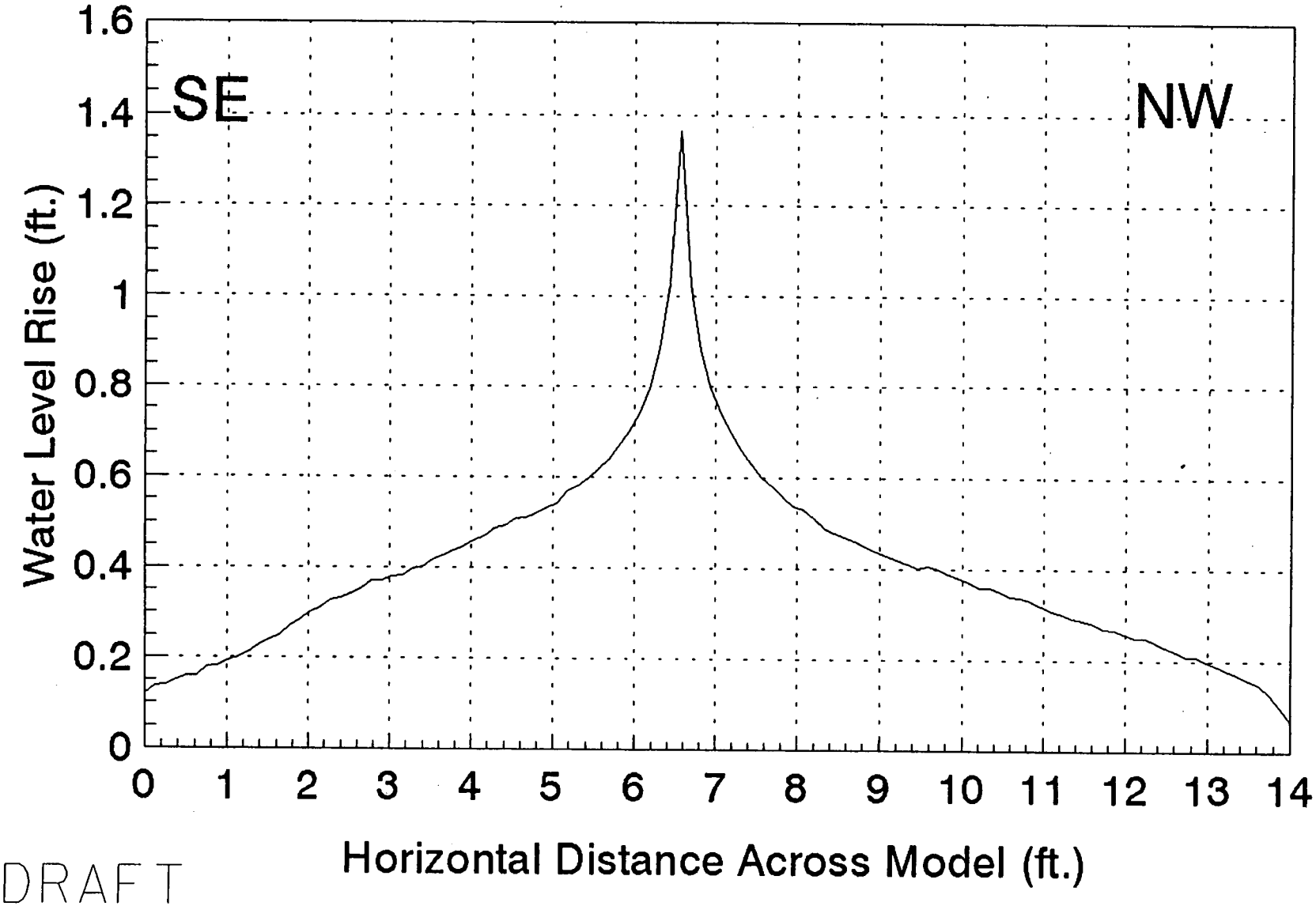
8.2 RECOMMENDATIONS

Although the cause of the iron plugging which occurred in the injection well during the South Field injection test has been identified, an additional injection test is needed to verify that the plugging problem can be eliminated by injecting treated water (which is relatively oxidized) into near-surface groundwater (which is also relatively oxidized). Once such verification has been obtained, work can proceed on a larger field-scale demonstration of injection at the FEMP.

The issue of iron hydroxide precipitation within the Great Miami Aquifer, both natural and/or created by pumping, also needs to be evaluated. Additional Eh measurements can be collected to determine where conditions may be favorable to the formation of iron hydroxide zones. Geochemical modeling can be conducted to determine how the mixing of water within the Great Miami Aquifer may affect the precipitation of iron hydroxide. Understanding the scale of the process and the reversibility of the reaction will greatly benefit the remediation effort.

Modeled Water Table Rise in Injection Well

Injecting @ 300 GPM



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Section 9.0

9.0 REFERENCES

Driscoll, F.G., 1986, Groundwater and Wells, 2nd ed., Johnson Division, St. Paul, MN.

International Technology Corp., 1995, "Geochemical Analysis and Modeling of Waters Injected into the Great Miami Aquifer," Draft, prepared for the Fernald Environmental Restoration Management Project, Cincinnati, OH.

Pyne, D. G. R., 1995, Groundwater Recharge and Wells, A Guide to Aquifer Storage Recovery, CRC Press, Boca Raton, FL.

U.S. Dept. of Energy, 1995a, "Feasibility Study Report for Operable Unit 5," Final, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. of Energy, 1995b, "Project-Specific Plan for the South Field Injection Test," DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. of Energy, 1995c, "Remedial Investigation Report for Operable Unit 5," Final, DOE, Fernald Area Office, Cincinnati, OH.

U.S. Dept. of Energy, 1995d, "South Field Pumping Test Report," DOE, Fernald Area Office, Cincinnati, OH.

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APPENDIX A

WATER LEVEL DATA

000089

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TABLE A-1
PREINJECTION WATER LEVELS
WELLS 31550 THROUGH 31556
FROM 10/07/95 TO 10/10/95

SE2000
Environmental Logger
10/10 14:48

Unit# 639 Test 1

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Reference	518.970	519.000	519.050	519.040	518.970	519.000	519.030
PSI at Ref.	0.933	2.046	8.393	9.778	1.532	9.815	2.371
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000
			Step 0 10/07 11:32:35				
Elapsed Time							
0.0000	518.970	535.423	518.968	518.995	518.970	518.924	519.042
15.0000	518.957	535.423	518.980	519.002	518.963	518.930	519.042
30.0000	518.957	535.423	518.974	518.995	518.963	518.930	519.042
45.0000	518.957	535.423	518.974	519.002	518.963	518.930	519.042
60.0000	518.957	535.423	518.968	519.002	518.963	518.924	519.042
75.0000	518.957	535.423	518.980	519.002	518.963	518.930	519.042
90.0000	518.957	535.423	518.961	518.995	518.963	518.924	519.042
105.000	518.963	535.423	518.980	519.008	518.970	518.930	519.042
120.000	518.957	535.423	518.961	518.995	518.963	518.930	519.042
135.000	518.963	535.430	518.999	519.014	518.970	518.930	519.055
150.000	518.957	535.423	518.949	518.983	518.963	518.930	519.042
165.000	518.963	535.430	518.986	519.008	518.970	518.937	519.048
180.000	518.970	535.436	519.012	519.027	518.976	518.937	519.055
195.000	518.970	535.430	518.986	519.008	518.976	518.937	519.055
210.000	518.963	535.430	518.980	519.008	518.970	518.937	519.048
225.000	518.963	535.430	518.986	519.008	518.970	518.937	519.055
240.000	518.963	535.430	518.974	519.002	518.970	518.930	519.055
255.000	518.963	535.430	518.980	519.008	518.970	518.937	519.048
270.000	518.963	535.430	518.986	519.008	518.970	518.937	519.055
285.000	518.957	535.430	518.955	518.989	518.970	518.930	519.048
300.000	518.963	535.430	518.986	519.008	518.970	518.937	519.048
315.000	518.957	535.423	518.942	518.983	518.963	518.930	519.042
330.000	518.957	535.423	518.974	519.002	518.970	518.937	519.048
345.000	518.957	535.423	518.968	518.995	518.963	518.930	519.048
360.000	518.957	535.423	518.974	519.008	518.963	518.930	519.048
375.000	518.957	535.423	518.968	519.002	518.963	518.930	519.042
390.000	518.957	535.423	518.968	519.002	518.963	518.930	519.042
405.000	518.957	535.417	518.968	519.002	518.963	518.930	519.042
420.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042

TABLE A-1
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Elapsed Time							
435.000	518.951	535.417	518.968	519.002	518.963	518.930	519.042
450.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
465.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
480.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
495.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
510.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
525.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
540.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
555.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
570.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
585.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
600.000	518.951	535.417	518.968	518.995	518.963	518.930	519.042
615.000	518.951	535.423	518.968	518.995	518.963	518.924	519.042
630.000	518.944	535.417	518.961	518.995	518.957	518.924	519.042
645.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
660.000	518.951	535.417	518.968	518.995	518.957	518.924	519.042
675.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
690.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
705.000	518.951	535.417	518.955	518.989	518.957	518.918	519.036
720.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
735.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
750.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
765.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
780.000	518.951	535.417	518.968	518.995	518.957	518.924	519.042
795.000	518.951	535.417	518.961	518.995	518.957	518.924	519.042
810.000	518.951	535.417	518.968	518.995	518.963	518.930	519.042
825.000	518.951	535.417	518.968	518.995	518.963	518.924	519.042
840.000	518.951	535.417	518.968	518.995	518.963	518.930	519.042
855.000	518.951	535.423	518.968	518.995	518.963	518.924	519.042
870.000	518.957	535.423	518.968	518.995	518.963	518.930	519.042
885.000	518.957	535.423	518.968	519.002	518.963	518.930	519.042
900.000	518.957	535.423	518.968	519.002	518.963	518.930	519.042
915.000	518.957	535.423	518.968	519.002	518.963	518.930	519.048
930.000	518.957	535.423	518.968	519.002	518.963	518.930	519.042
945.000	518.957	535.423	518.968	519.002	518.963	518.930	519.042
960.000	518.963	535.423	518.974	519.002	518.963	518.930	519.048
975.000	518.963	535.423	518.974	519.002	518.970	518.930	519.048
990.000	518.957	535.423	518.968	519.002	518.963	518.930	519.048
1005.00	518.957	535.423	518.974	519.002	518.963	518.930	519.048
1020.00	518.963	535.423	518.974	519.002	518.970	518.930	519.048
1035.00	518.957	535.423	518.974	519.002	518.963	518.930	519.048
1050.00	518.963	535.423	518.974	519.002	518.970	518.930	519.048
1065.00	518.963	535.430	518.974	519.002	518.970	518.930	519.048
1080.00	518.963	535.423	518.974	519.002	518.970	518.937	519.048
1095.00	518.963	535.430	518.974	519.002	518.970	518.937	519.048
1110.00	518.963	535.423	518.968	519.002	518.970	518.930	519.048
1125.00	518.963	535.423	518.974	519.002	518.970	518.930	519.048
1140.00	518.963	535.430	518.974	519.008	518.970	518.930	519.048

TABLE A-1
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Elapsed Time							
1155.00	518.963	535.423	518.974	519.002	518.963	518.930	519.048
1170.00	518.957	535.423	518.968	519.002	518.963	518.930	519.048
1185.00	518.963	535.423	518.974	519.008	518.970	518.937	519.048
1200.00	518.963	535.423	518.968	519.002	518.963	518.930	519.048
1215.00	518.957	535.423	518.974	519.002	518.963	518.930	519.048
1230.00	518.957	535.423	518.968	519.002	518.963	518.930	519.048
1245.00	518.957	535.423	518.968	519.002	518.963	518.924	519.042
1260.00	518.957	535.423	518.968	519.002	518.963	518.924	519.042
1275.00	518.957	535.423	518.961	518.995	518.957	518.924	519.042
1290.00	518.957	535.417	518.961	518.995	518.957	518.924	519.042
1305.00	518.951	535.417	518.961	518.995	518.957	518.924	519.042
1320.00	518.957	535.423	518.961	518.995	518.957	518.924	519.042
1335.00	518.957	535.423	518.968	518.995	518.963	518.924	519.042
1350.00	518.957	535.423	518.961	518.995	518.963	518.924	519.042
1365.00	518.957	535.423	518.968	519.002	518.963	518.924	519.042
1380.00	518.957	535.423	518.968	518.995	518.963	518.924	519.042
1395.00	518.957	535.423	518.968	519.002	518.970	518.930	519.048
1410.00	518.957	535.423	518.968	519.002	518.963	518.930	519.042
1425.00	518.957	535.423	518.968	519.002	518.963	518.930	519.042
1440.00	518.963	535.423	518.968	519.002	518.970	518.930	519.048
1455.00	518.963	535.430	518.968	519.002	518.970	518.937	519.048
1470.00	518.963	535.430	518.980	519.008	518.970	518.937	519.048
1485.00	518.970	535.430	518.980	519.002	518.970	518.937	519.055
1500.00	518.970	535.436	518.980	519.008	518.976	518.943	519.055
1515.00	518.970	535.436	518.980	519.008	518.976	518.937	519.055
1530.00	518.976	535.436	518.986	519.008	518.982	518.949	519.061
1545.00	518.970	535.436	518.986	519.014	518.976	518.943	519.061
1560.00	518.970	535.436	518.980	519.014	518.976	518.943	519.061
1575.00	518.982	535.442	518.993	519.021	518.982	518.949	519.067
1590.00	518.982	535.449	518.993	519.014	518.988	518.955	519.067
1605.00	518.982	535.449	518.999	519.021	518.988	518.955	519.074
1620.00	518.982	535.449	519.005	519.021	518.988	518.955	519.074
1635.00	518.988	535.449	518.999	519.021	518.995	518.962	519.074
1650.00	518.988	535.455	519.018	519.033	518.995	518.962	519.080
1665.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
1680.00	518.988	535.449	519.005	519.027	518.995	518.962	519.074
1695.00	518.988	535.455	518.993	519.021	518.995	518.962	519.074
1710.00	518.995	535.461	519.024	519.040	519.001	518.968	519.086
1725.00	518.995	535.455	519.018	519.040	519.001	518.968	519.080
1740.00	518.995	535.461	519.018	519.033	519.001	518.968	519.086
1755.00	518.995	535.461	519.018	519.033	519.001	518.974	519.086
1770.00	518.995	535.455	519.018	519.033	519.001	518.962	519.080
1785.00	518.995	535.455	519.012	519.027	519.001	518.968	519.080
1800.00	518.995	535.455	519.012	519.027	519.001	518.968	519.086
1815.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
1830.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
1845.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
1860.00	518.995	535.461	519.012	519.040	519.001	518.974	519.086

TABLE A-1
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Elapsed Time							
1875.00	518.995	535.455	519.012	519.033	519.001	518.968	519.086
1890.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
1905.00	519.001	535.461	519.012	519.033	519.007	518.974	519.086
1920.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
1935.00	518.995	535.455	519.005	519.033	519.001	518.968	519.086
1950.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
1965.00	518.995	535.461	519.012	519.033	519.007	518.968	519.086
1980.00	518.995	535.461	519.012	519.033	519.007	518.968	519.086
1995.00	518.995	535.455	519.005	519.033	519.001	518.968	519.086
2010.00	518.995	535.461	519.012	519.033	519.007	518.968	519.086
2025.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
2040.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
2055.00	518.995	535.461	519.012	519.033	519.001	518.968	519.086
2070.00	518.988	535.455	519.005	519.027	519.001	518.962	519.086
2085.00	518.995	535.455	519.005	519.033	519.001	518.968	519.080
2100.00	518.995	535.455	519.005	519.033	519.001	518.968	519.080
2115.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2130.00	518.988	535.455	519.005	519.027	519.001	518.962	519.080
2145.00	518.988	535.455	519.005	519.027	519.001	518.962	519.080
2160.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2175.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2190.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2205.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2220.00	518.995	535.455	519.005	519.027	519.001	518.962	519.080
2235.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2250.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2265.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2280.00	518.988	535.455	518.999	519.027	518.995	518.962	519.080
2295.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2310.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2325.00	518.988	535.455	518.999	519.027	518.995	518.955	519.080
2340.00	518.988	535.455	518.999	519.027	518.995	518.955	519.080
2355.00	518.988	535.449	518.999	519.027	518.988	518.955	519.074
2370.00	518.988	535.449	518.999	519.027	518.995	518.955	519.074
2385.00	518.988	535.449	518.999	519.027	518.988	518.955	519.074
2400.00	518.988	535.455	519.005	519.027	519.001	518.962	519.080
2415.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2430.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2445.00	518.988	535.455	519.005	519.027	519.001	518.962	519.080
2460.00	518.988	535.455	518.999	519.027	518.995	518.955	519.080
2475.00	518.995	535.455	519.005	519.027	519.001	518.962	519.080
2490.00	518.988	535.455	519.005	519.027	518.995	518.962	519.080
2505.00	518.988	535.449	518.999	519.027	518.988	518.955	519.074
2520.00	518.988	535.449	518.999	519.021	518.988	518.955	519.074
2535.00	518.982	535.449	518.999	519.021	518.988	518.955	519.074
2550.00	518.988	535.449	518.999	519.027	518.988	518.955	519.074
2565.00	518.982	535.449	518.993	519.021	518.988	518.949	519.067
2580.00	518.982	535.449	518.993	519.021	518.988	518.949	519.074

TABLE A-1
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Elapsed Time							
2595.00	518.982	535.442	518.993	519.021	518.982	518.949	519.067
2610.00	518.982	535.449	518.993	519.021	518.988	518.949	519.067
2625.00	518.982	535.442	518.993	519.021	518.982	518.949	519.067
2640.00	518.982	535.442	518.993	519.014	518.982	518.949	519.067
2655.00	518.982	535.442	518.993	519.014	518.982	518.949	519.067
2670.00	518.976	535.442	518.986	519.014	518.982	518.943	519.067
2685.00	518.976	535.442	518.986	519.014	518.982	518.943	519.067
2700.00	518.976	535.442	518.986	519.014	518.982	518.943	519.067
2715.00	518.976	535.442	518.986	519.014	518.982	518.943	519.030
2730.00	518.976	535.442	499.552	519.014	518.976	518.943	513.440
2745.00	518.982	535.442	499.552	519.014	518.982	518.943	513.434
2760.00	518.976	535.442	499.564	519.014	518.976	518.943	519.004
2775.00	516.795	535.442	518.980	519.014	518.982	518.943	519.011
2790.00	516.802	535.442	518.993	519.014	518.982	518.937	519.004
2805.00	516.821	514.254	518.993	519.014	518.988	518.949	519.017
2820.00	519.001	514.247	518.986	519.008	518.976	518.943	519.004
2835.00	518.995	514.247	518.986	519.008	518.976	518.943	519.004
2850.00	518.995	519.006	518.986	519.008	515.407	518.943	519.004
2865.00	518.995	518.993	518.986	519.008	515.407	496.278	519.004
2880.00	518.995	519.000	518.993	519.008	515.413	496.360	519.004
2895.00	518.988	519.000	518.986	519.008	518.995	496.379	519.004
2910.00	518.988	518.993	518.993	519.008	518.995	496.372	519.004
2925.00	518.995	519.000	518.993	519.008	519.001	518.937	519.004
2940.00	518.995	519.000	518.993	496.364	518.995	518.924	519.004
2955.00	518.995	519.000	518.986	496.396	518.995	518.918	519.004
2970.00	518.988	518.993	518.993	496.402	518.995	518.924	519.004
2985.00	518.995	519.000	518.999	496.345	519.001	518.924	519.011
3000.00	518.995	519.000	518.993	518.983	519.001	518.930	519.011
3015.00	519.001	519.000	518.999	518.976	519.001	518.930	519.011
3030.00	519.001	519.006	518.999	518.983	519.007	518.930	519.011
3045.00	519.001	519.006	519.005	518.983	519.007	518.930	519.017
3060.00	519.001	519.006	519.005	518.983	519.007	518.930	519.017
3075.00	519.001	519.006	519.005	518.983	519.007	518.930	519.017
3090.00	519.001	519.006	518.999	518.983	519.007	518.930	519.017
3105.00	519.001	519.006	519.005	518.983	519.007	518.930	519.017
3120.00	519.001	519.006	518.999	518.983	519.007	518.930	519.017
3135.00	519.001	519.006	519.005	518.983	519.007	518.930	519.017
3150.00	519.001	519.000	518.999	518.983	519.007	518.930	519.017
3165.00	519.001	519.006	518.999	518.976	519.007	518.930	519.017
3180.00	519.001	519.006	518.999	518.976	519.007	518.930	519.017
3195.00	519.001	519.000	518.999	518.976	519.007	518.930	519.017
3210.00	519.001	519.000	518.999	518.976	519.001	518.930	519.011
3225.00	518.995	519.000	518.999	518.976	519.007	518.924	519.011
3240.00	518.995	519.000	518.999	518.976	519.001	518.930	519.017
3255.00	518.995	519.000	518.999	518.976	519.001	518.924	519.017
3270.00	518.988	518.993	518.999	518.976	519.001	518.924	519.011
3285.00	518.988	518.993	518.993	518.970	519.001	518.924	519.011
3300.00	518.988	518.993	518.993	518.976	519.001	518.924	519.011

TABLE A-1
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Elapsed Time							
3315.00	518.988	518.993	518.993	518.970	519.001	518.924	519.011
3330.00	518.988	518.993	518.993	518.970	518.995	518.918	519.011
3345.00	518.988	518.993	518.986	518.970	518.995	518.918	519.011
3360.00	518.982	518.987	518.986	518.970	518.995	518.918	519.011
3375.00	518.982	518.987	518.986	518.964	518.995	518.918	519.004
3390.00	518.982	518.987	518.986	518.964	518.988	518.911	519.004
3405.00	518.982	518.987	518.980	518.964	518.988	518.911	519.004
3420.00	518.982	518.981	518.980	518.964	518.988	518.911	518.998
3435.00	518.976	518.981	518.974	518.964	518.982	518.911	518.998
3450.00	518.976	518.981	518.974	518.964	518.988	518.911	518.998
3465.00	518.976	518.981	518.974	518.957	518.982	518.905	518.998
3480.00	518.976	518.974	518.974	518.957	518.982	518.905	518.992
3495.00	518.970	518.974	518.968	518.951	518.982	518.899	518.992
3510.00	518.970	518.974	518.974	518.957	518.982	518.905	518.992
3525.00	518.970	518.974	518.968	518.951	518.976	518.899	518.992
3540.00	518.963	518.968	518.968	518.951	518.976	518.899	518.992
3555.00	518.970	518.974	518.968	518.951	518.976	518.899	518.992
3570.00	518.970	518.974	518.968	518.951	518.976	518.899	518.992
3585.00	518.963	518.968	518.968	518.951	518.976	518.899	518.986
3600.00	518.970	518.974	518.968	518.951	518.976	518.899	518.992
3615.00	518.963	518.968	518.968	518.951	518.976	518.899	518.986
3630.00	518.963	518.968	518.968	518.951	518.976	518.899	518.986
3645.00	518.963	518.968	518.961	518.951	518.976	518.892	518.986
3660.00	518.963	518.968	518.968	518.945	518.976	518.892	518.986
3675.00	518.963	518.968	518.968	518.951	518.976	518.899	518.986
3690.00	518.970	518.968	518.968	518.951	518.976	518.899	518.986
3705.00	518.963	518.968	518.961	518.945	518.970	518.892	518.986
3720.00	518.963	518.968	518.968	518.945	518.970	518.892	518.986
3735.00	518.963	518.974	518.968	518.945	518.970	518.892	518.986
3750.00	518.963	518.968	518.961	518.945	518.970	518.892	518.986
3765.00	518.957	518.968	518.961	518.945	518.970	518.892	518.979
3780.00	518.963	518.962	518.961	518.945	518.970	518.886	518.979
3795.00	518.963	518.968	518.961	518.945	518.970	518.892	518.979
3810.00	518.963	518.968	518.961	518.945	518.970	518.892	518.979
3825.00	518.957	518.962	518.961	518.945	518.970	518.886	518.979
3840.00	518.963	518.968	518.961	518.945	518.970	518.892	518.979
3855.00	518.963	518.968	518.961	518.945	518.970	518.892	518.986
3870.00	518.963	518.968	518.968	518.945	518.970	518.892	518.986
3885.00	518.963	518.962	518.961	518.945	518.970	518.886	518.979
3900.00	518.957	518.962	518.961	518.945	518.970	518.886	518.979
3915.00	518.957	518.968	518.961	518.945	518.970	518.886	518.979
3930.00	518.957	518.962	518.955	518.938	518.963	518.886	518.973
3945.00	518.957	518.962	518.955	518.938	518.963	518.886	518.973
3960.00	518.957	518.962	518.955	518.938	518.963	518.886	518.973
3975.00	518.951	518.955	518.955	518.938	518.957	518.880	518.973
3990.00	518.951	518.955	518.955	518.932	518.957	518.880	518.973
4005.00	518.951	518.955	518.955	518.932	518.957	518.880	518.967
4020.00	518.951	518.955	518.949	518.932	518.957	518.874	518.967

TABLE A-1
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT
Elapsed Time							
4035.00	518.951	518.955	518.949	518.932	518.957	518.880	518.967
4050.00	518.951	518.949	518.949	518.932	518.951	518.874	518.967
4065.00	518.951	518.955	518.949	518.932	518.957	518.880	518.967
4080.00	518.944	518.955	518.949	518.932	518.951	518.874	518.967
4095.00	518.951	518.955	518.949	518.932	518.957	518.874	518.967
4110.00	518.951	518.955	518.949	518.932	518.957	518.874	518.967
4125.00	518.951	518.949	518.949	518.932	518.951	518.874	518.967
4140.00	518.944	518.949	518.942	518.926	518.951	518.867	518.960
4155.00	518.938	518.943	518.942	518.919	518.944	518.867	518.960
4170.00	518.938	518.943	518.942	518.926	518.944	518.867	518.960
4185.00	518.938	518.949	518.942	518.926	518.951	518.867	518.986
4200.00	518.938	518.949	518.942	518.926	518.944	518.867	518.986
4215.00	518.944	518.949	518.942	518.926	518.944	518.867	518.979

TABLE A-2
WATER LEVELS DURING FIRST STEP OF STEP TEST
INJECTION RATE OF 100 GPM
WELLS 31550 THRU 31556
10/12/95

SE2000
Environmental Logger
10/12 16:08

Unit# 639 Test 6

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Reference	518.875	518.891	518.885	518.849	518.881	518.823	518.954	519.031
PSI at Ref.	0.897	1.993	1.580	9.696	1.496	9.741	2.327	0.448
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138	0.121
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865	20.042
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086	-0.012
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Step 0 10/12 12:16:40								
Elapsed Time								
0.0000	518.881	518.909	518.897	518.855	518.887	518.823	519.023	519.107
0.0083	518.887	518.903	518.897	518.855	518.893	518.823	519.029	519.100
0.0166	518.881	518.903	518.897	518.855	518.893	518.823	519.035	519.113
0.0250	518.887	518.903	518.897	518.855	518.893	518.829	519.041	519.113
0.0333	518.887	518.909	518.903	518.855	518.893	518.829	519.041	519.119
0.0416	518.881	518.903	518.897	518.855	518.893	518.823	519.041	519.119
0.0500	518.887	518.909	518.897	518.855	518.893	518.823	519.041	519.125
0.0583	518.887	518.903	518.897	518.855	518.893	518.823	519.035	519.125
0.0666	518.887	518.903	518.897	518.855	518.893	518.823	519.035	519.125
0.0750	518.887	518.903	518.897	518.855	518.893	518.829	519.035	519.119
0.0833	518.887	518.903	518.897	518.855	518.893	518.823	519.035	519.119
0.0916	518.887	518.903	518.897	518.855	518.893	518.823	519.035	519.125
0.1000	518.887	518.903	518.897	518.855	518.893	518.823	519.035	519.119
0.1083	518.881	518.903	518.897	518.855	518.893	518.823	519.035	519.125
0.1166	518.881	518.909	518.897	518.855	518.893	518.823	519.041	519.125
0.1250	518.887	518.903	518.897	518.855	518.893	518.823	519.041	519.125
0.1333	518.881	518.909	518.897	518.855	518.893	518.823	519.041	519.125
0.1416	518.887	518.909	518.897	518.855	518.893	518.823	519.041	519.132
0.1500	518.881	518.903	518.897	518.855	518.893	518.823	519.048	519.132
0.1583	518.887	518.909	518.897	518.855	518.893	518.823	519.048	519.132
0.1666	518.887	518.903	518.897	518.855	518.893	518.823	519.048	519.138
0.1750	518.887	518.903	518.897	518.855	518.893	518.823	519.054	519.138
0.1833	518.887	518.903	518.897	518.855	518.893	518.823	519.054	519.144
0.1916	518.887	518.909	518.897	518.855	518.893	518.829	519.060	519.151
0.2000	518.887	518.909	518.897	518.855	518.893	518.823	519.060	519.151
0.2083	518.887	518.903	518.897	518.855	518.893	518.823	519.067	519.157
0.2166	518.887	518.909	518.897	518.861	518.893	518.823	519.067	519.163
0.2250	518.887	518.909	518.897	518.855	518.893	518.823	519.073	519.163
0.2333	518.887	518.909	518.897	518.855	518.893	518.823	519.079	519.170
0.2416	518.893	518.909	518.897	518.855	518.893	518.823	519.085	519.176

TABLE A-2
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
0.2500	518.887	518.909	518.897	518.855	518.893	518.823	519.092	519.189
0.2583	518.893	518.909	518.897	518.855	518.893	518.823	519.098	519.195
0.2666	518.893	518.909	518.897	518.855	518.893	518.823	519.111	519.208
0.2750	518.893	518.909	518.897	518.855	518.893	518.829	519.129	519.220
0.2833	518.893	518.909	518.897	518.861	518.893	518.829	519.148	519.239
0.2916	518.893	518.909	518.897	518.861	518.893	518.823	519.167	519.271
0.3000	518.893	518.909	518.897	518.861	518.893	518.829	519.199	519.303
0.3083	518.900	518.909	518.897	518.861	518.893	518.823	519.236	519.322
0.3166	518.906	518.909	518.897	518.861	518.899	518.829	519.274	519.341
0.3250	518.906	518.916	518.897	518.861	518.899	518.823	519.318	519.385
0.3333	518.906	518.916	518.897	518.861	518.899	518.829	519.368	519.398
0.3500	518.912	518.916	518.897	518.867	518.899	518.829	519.444	519.455
0.3666	518.925	518.922	518.897	518.874	518.906	518.829	519.557	519.486
0.3833	518.931	518.928	518.897	518.874	518.906	518.829	519.645	519.582
0.4000	518.944	518.928	518.903	518.874	518.912	518.829	519.733	519.702
0.4166	518.950	518.935	518.903	518.880	518.912	518.829	519.808	519.835
0.4333	518.957	518.935	518.897	518.886	518.918	518.829	519.884	519.955
0.4500	518.963	518.941	518.897	518.886	518.924	518.835	519.953	520.063
0.4666	518.969	518.941	518.903	518.893	518.924	518.835	520.022	520.272
0.4833	518.982	518.947	518.897	518.899	518.931	518.835	520.079	520.424
0.5000	518.982	518.947	518.903	518.899	518.931	518.835	520.116	520.513
0.5166	518.988	518.947	518.903	518.905	518.937	518.835	520.167	520.589
0.5333	518.995	518.954	518.903	518.905	518.937	518.835	520.204	520.703
0.5500	519.001	518.954	518.903	518.912	518.937	518.841	520.236	520.791
0.5666	519.001	518.954	518.903	518.912	518.937	518.835	520.236	520.893
0.5833	519.001	518.954	518.903	518.918	518.937	518.841	520.24	520.975
0.6000	519.007	518.960	518.903	518.918	518.943	518.835	520.261	521.039
0.6166	519.007	518.960	518.903	518.918	518.943	518.841	520.280	521.140
0.6333	519.007	518.960	518.903	518.918	518.943	518.841	520.311	521.216
0.6500	519.007	518.966	518.903	518.918	518.943	518.841	520.343	521.241
0.6666	519.014	518.960	518.903	518.918	518.943	518.841	520.336	521.393
0.6833	519.014	518.960	518.903	518.924	518.950	518.841	520.349	521.406
0.7000	519.014	518.966	518.903	518.924	518.950	518.841	520.343	521.438
0.7166	519.014	518.960	518.903	518.924	518.950	518.841	520.349	521.438
0.7333	519.014	518.960	518.910	518.924	518.950	518.841	520.381	521.425
0.7500	519.014	518.966	518.903	518.924	518.950	518.841	520.355	521.482
0.7666	519.014	518.966	518.903	518.931	518.950	518.841	520.368	521.520
0.7833	519.020	518.966	518.910	518.924	518.950	518.841	520.374	521.564
0.8000	519.020	518.966	518.903	518.931	518.950	518.841	520.368	521.698
0.8166	519.020	518.966	518.903	518.931	518.950	518.841	520.425	521.742
0.8333	519.026	518.966	518.910	518.931	518.950	518.841	520.399	522.084
0.8500	519.026	518.966	518.910	518.931	518.950	518.841	520.362	521.571
0.8666	519.020	518.966	518.910	518.931	518.950	518.841	520.412	521.957
0.8833	519.020	518.966	518.903	518.931	518.950	518.841	520.381	521.894
0.9000	519.020	518.966	518.910	518.931	518.950	518.841	520.399	522.002
0.9166	519.020	518.966	518.903	518.937	518.950	518.848	520.393	521.983
0.9333	519.020	518.966	518.910	518.937	518.950	518.848	520.393	521.919
0.9500	519.020	518.966	518.910	518.937	518.956	518.841	520.431	521.926
0.9666	519.020	518.966	518.903	518.931	518.956	518.841	520.431	521.938
0.9833	519.026	518.973	518.903	518.931	518.956	518.841	520.418	521.913
1.0000	519.026	518.973	518.903	518.931	518.956	518.848	520.456	522.014

TABLE A-2
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1.2000	519.039	518.979	518.910	518.937	518.962	518.848	520.588	521.679
1.4000	519.045	518.979	518.910	518.943	518.962	518.848	520.638	520.975
1.6000	519.052	518.985	518.910	518.950	518.968	518.848	520.676	520.595
1.8000	519.058	518.985	518.910	518.950	518.968	518.848	520.676	520.462
2.0000	519.058	518.985	518.916	518.956	518.968	518.854	520.682	520.399
2.2000	519.058	518.985	518.910	518.956	518.968	518.854	520.689	520.380
2.4000	519.064	518.985	518.916	518.956	518.975	518.854	520.714	520.380
2.6000	519.064	518.992	518.910	518.956	518.975	518.854	520.714	520.386
2.8000	519.064	518.992	518.910	518.956	518.975	518.854	520.701	520.399
3.0000	519.064	518.992	518.916	518.962	518.975	518.854	520.689	520.373
3.2000	519.064	518.992	518.916	518.962	518.975	518.854	520.714	520.335
3.4000	519.070	518.992	518.916	518.962	518.975	518.854	520.701	520.361
3.6000	519.064	518.992	518.916	518.962	518.975	518.854	520.689	520.354
3.8000	519.064	518.992	518.916	518.962	518.975	518.854	520.676	520.348
4.0000	519.070	518.998	518.916	518.962	518.975	518.854	520.695	520.329
4.2000	519.070	518.992	518.916	518.962	518.981	518.860	520.663	520.354
4.4000	519.070	518.998	518.916	518.962	518.981	518.860	520.726	520.354
4.6000	519.070	518.998	518.916	518.969	518.981	518.860	520.707	520.361
4.8000	519.077	518.998	518.916	518.969	518.981	518.860	520.720	520.367
5.0000	519.077	519.004	518.916	518.969	518.987	518.860	520.733	520.361
5.2000	519.077	519.004	518.916	518.969	518.987	518.860	520.726	520.367
5.4000	519.077	518.998	518.916	518.975	518.981	518.860	520.726	520.348
5.6000	519.083	519.004	518.922	518.969	518.987	518.860	520.745	520.335
5.8000	519.083	519.004	518.916	518.969	518.987	518.860	520.720	520.354
6.0000	519.083	519.004	518.916	518.975	518.987	518.860	520.720	520.342
6.2000	519.083	519.004	518.922	518.975	518.987	518.860	520.745	520.348
6.4000	519.083	519.004	518.916	518.975	518.987	518.860	520.714	520.335
6.6000	519.083	519.004	518.922	518.975	518.987	518.860	520.726	520.342
6.8000	519.083	519.004	518.922	518.975	518.987	518.860	520.720	520.354
7.0000	519.083	519.004	518.922	518.975	518.987	518.860	520.720	520.342
7.2000	519.077	519.004	518.916	518.975	518.987	518.860	520.720	520.367
7.4000	519.077	518.998	518.910	518.975	518.987	518.867	520.733	520.342
7.6000	519.077	518.998	518.916	518.975	518.981	518.867	520.720	520.361
7.8000	519.070	518.998	518.916	518.975	518.987	518.867	520.733	520.354
8.0000	519.077	518.998	518.916	518.981	518.987	518.860	520.739	520.354
8.2000	519.077	519.004	518.910	518.975	518.987	518.867	520.733	520.348
8.4000	519.077	518.998	518.910	518.975	518.987	518.867	520.714	520.348
8.6000	519.077	518.998	518.910	518.975	518.987	518.867	520.726	520.380
8.8000	519.077	518.998	518.910	518.975	518.987	518.867	520.733	520.367
9.0000	519.077	518.998	518.916	518.981	518.987	518.867	520.720	520.367
9.2000	519.077	519.004	518.910	518.981	518.987	518.867	520.733	520.373
9.4000	519.077	519.004	518.910	518.981	518.987	518.867	520.739	520.380
9.6000	519.077	519.004	518.910	518.975	518.987	518.867	520.758	520.380
9.8000	519.077	518.998	518.910	518.981	518.987	518.867	520.739	520.380
10.0000	519.077	519.004	518.910	518.981	518.987	518.867	520.745	520.392
12.0000	519.083	519.004	518.910	518.981	518.993	518.867	520.758	520.392
14.0000	519.083	519.011	518.916	518.988	518.993	518.873	520.758	520.399
16.0000	519.083	519.011	518.916	518.988	519.000	518.873	520.733	520.405
18.0000	519.102	519.023	518.928	518.988	519.006	518.879	520.770	520.418
20.0000	519.102	519.023	518.928	518.994	519.006	518.879	520.783	520.443
22.0000	519.108	519.030	518.928	519.000	519.012	518.879	520.814	520.456

TABLE A-2
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
24.0000	519.108	519.030	518.935	519.000	519.012	518.879	520.821	520.443
26.0000	519.108	519.030	518.935	519.000	519.012	518.879	520.827	520.475
28.0000	519.115	519.036	518.935	519.000	519.019	518.879	520.852	520.443
30.0000	519.115	519.036	518.935	519.000	519.019	518.885	520.808	520.475
32.0000	519.115	519.036	518.941	519.007	519.019	518.885	520.833	520.456
34.0000	519.115	519.036	518.941	519.007	519.025	518.885	520.827	520.456
36.0000	519.108	519.030	518.928	519.007	519.019	518.892	520.808	520.468
38.0000	519.108	519.030	518.935	519.007	519.019	518.892	520.827	520.468
40.0000	519.121	519.042	518.941	519.013	519.025	518.892	520.827	520.475
42.0000	519.115	519.036	518.935	519.013	519.025	518.892	520.821	520.487
44.0000	519.115	519.036	518.935	519.013	519.025	518.898	520.833	520.487
46.0000	519.121	519.049	518.947	519.019	519.031	518.898	520.821	520.481
48.0000	519.115	519.042	518.935	519.019	519.025	518.898	520.840	520.468
50.0000	519.121	519.042	518.941	519.019	519.031	518.898	520.827	520.456
52.0000	519.121	519.042	518.941	519.019	519.031	518.898	520.833	520.475
54.0000	519.121	519.042	518.941	519.019	519.031	518.904	520.852	520.456
56.0000	519.134	519.055	518.954	519.026	519.037	518.904	520.858	520.494
58.0000	519.127	519.049	518.947	519.019	519.037	518.904	520.840	520.494
60.0000	519.127	519.049	518.947	519.026	519.037	518.904	520.865	520.487
62.0000	519.127	519.049	518.947	519.026	519.037	518.904	520.846	520.494
64.0000	519.127	519.049	518.954	519.026	519.037	518.911	520.852	520.456
66.0000	519.140	519.061	518.960	519.026	519.044	518.911	520.846	520.506

TABLE A-3
WATER LEVELS DURING SECOND STEP OF STEP TEST
INJECTION RATE OF 300 GPM
WELLS 31550 THROUGH 31556
10/12/95

SE2000
Environmental Logger
10/12 15:54

Unit# 639 Test 7

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Reference	518.950	518.973	518.947	518.918	518.956	518.879	519.067	519.138
PSI at Ref.	0.927	2.021	1.599	9.723	1.524	9.763	2.366	0.481
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138	0.121
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865	20.042
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086	-0.012
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Step 0 10/12 13:40:52								
Elapsed Time								
0.0000	518.950	518.985	518.959	518.924	518.962	518.885	519.123	519.201
0.0083	518.950	518.985	518.959	518.918	518.962	518.885	519.117	519.195
0.0166	518.950	518.979	518.959	518.918	518.962	518.885	519.117	519.195
0.0250	518.956	518.985	518.959	518.918	518.962	518.885	519.117	519.195
0.0333	518.950	518.985	518.959	518.924	518.962	518.885	519.117	519.188
0.0416	518.950	518.979	518.959	518.918	518.962	518.885	519.117	519.195
0.0500	518.950	518.985	518.959	518.918	518.962	518.879	519.117	519.195
0.0583	518.950	518.979	518.959	518.918	518.962	518.885	519.111	519.195
0.0666	518.950	518.979	518.959	518.918	518.962	518.879	519.111	519.195
0.0750	518.950	518.979	518.959	518.918	518.962	518.879	519.111	519.195
0.0833	518.950	518.979	518.959	518.918	518.962	518.879	519.117	519.195
0.0916	518.950	518.985	518.959	518.918	518.962	518.885	519.117	519.195
0.1000	518.950	518.985	518.959	518.918	518.962	518.879	519.117	519.195
0.1083	518.950	518.979	518.959	518.918	518.962	518.879	519.117	519.207
0.1166	518.950	518.979	518.959	518.918	518.962	518.885	519.123	519.214
0.1250	518.950	518.979	518.959	518.918	518.962	518.879	519.123	519.220
0.1333	518.950	518.985	518.959	518.918	518.962	518.879	519.129	519.220
0.1416	518.950	518.979	518.959	518.918	518.962	518.879	519.136	519.233
0.1500	518.950	518.985	518.959	518.918	518.962	518.879	519.148	519.245
0.1583	518.956	518.985	518.959	518.918	518.962	518.879	519.161	519.271
0.1666	518.956	518.985	518.959	518.918	518.962	518.885	519.173	519.296
0.1750	518.956	518.985	518.959	518.918	518.962	518.885	519.198	519.321
0.1833	518.956	518.985	518.959	518.918	518.962	518.885	519.224	519.346
0.1916	518.962	518.985	518.959	518.924	518.962	518.885	519.249	519.365
0.2000	518.962	518.985	518.959	518.918	518.962	518.885	519.274	519.391
0.2083	518.962	518.985	518.959	518.924	518.968	518.879	519.305	519.404
0.2166	518.968	518.991	518.959	518.924	518.968	518.885	519.337	519.442
0.2250	518.968	518.985	518.959	518.924	518.968	518.885	519.362	519.461
0.2333	518.968	518.985	518.959	518.924	518.968	518.885	519.387	519.492
0.2416	518.975	518.991	518.959	518.924	518.968	518.885	519.418	519.524

TABLE A-3
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
0.2500	518.975	518.991	518.959	518.930	518.968	518.885	519.456	519.587
0.2583	518.981	518.991	518.959	518.930	518.974	518.885	519.500	519.663
0.2666	518.987	518.991	518.959	518.930	518.974	518.885	519.569	519.727
0.2750	518.987	518.998	518.959	518.930	518.974	518.885	519.664	519.784
0.2833	518.994	518.998	518.959	518.930	518.974	518.885	519.689	519.828
0.2916	519.000	518.998	518.959	518.936	518.981	518.885	519.745	519.923
0.3000	519.006	519.004	518.959	518.936	518.981	518.885	519.833	519.999
0.3083	519.013	519.010	518.959	518.936	518.987	518.885	519.915	520.062
0.3166	519.019	519.010	518.959	518.943	518.987	518.885	519.984	520.170
0.3250	519.025	519.010	518.959	518.943	518.987	518.885	520.047	520.221
0.3333	519.032	519.010	518.959	518.943	518.993	518.885	520.091	520.341
0.3500	519.038	519.017	518.959	518.949	518.993	518.891	520.148	520.487
0.3666	519.044	519.023	518.965	518.955	518.993	518.891	520.211	520.677
0.3833	519.051	519.023	518.965	518.962	518.999	518.891	520.292	521.025
0.4000	519.057	519.029	518.965	518.962	519.006	518.891	520.305	520.968
0.4166	519.063	519.029	518.959	518.968	519.006	518.891	520.355	521.025
0.4333	519.063	519.029	518.965	518.968	519.006	518.891	520.399	521.070
0.4500	519.070	519.036	518.965	518.974	519.012	518.897	520.418	521.108
0.4666	519.070	519.036	518.965	518.974	519.012	518.891	520.443	521.158
0.4833	519.076	519.036	518.965	518.981	519.012	518.897	520.462	521.165
0.5000	519.076	519.036	518.965	518.981	519.012	518.897	520.487	521.196
0.5166	519.082	519.036	518.965	518.981	519.018	518.897	520.512	521.266
0.5333	519.082	519.036	518.965	518.987	519.018	518.897	520.556	521.348
0.5500	519.089	519.036	518.965	518.981	519.018	518.897	520.594	521.437
0.5666	519.089	519.042	518.965	518.987	519.018	518.897	520.588	521.462
0.5833	519.089	519.042	518.965	518.987	519.018	518.897	520.575	521.519
0.6000	519.089	519.042	518.965	518.993	519.018	518.897	520.600	521.500
0.6166	519.089	519.042	518.965	518.993	519.018	518.897	520.619	521.564
0.6333	519.095	519.048	518.965	518.993	519.025	518.897	520.682	521.691
0.6500	519.101	519.048	518.965	519.000	519.025	518.897	520.613	521.500
0.6666	519.108	519.048	518.965	519.000	519.025	518.904	520.833	522.052
0.6833	519.108	519.048	518.965	519.000	519.031	518.904	520.795	522.185
0.7000	519.114	519.055	518.965	519.000	519.031	518.904	520.758	522.838
0.7166	519.120	519.055	518.965	519.006	519.037	518.904	521.041	522.692
0.7333	519.133	519.061	518.965	519.012	519.037	518.904	521.223	522.762
0.7500	519.145	519.067	518.965	519.019	519.043	518.904	521.368	522.863
0.7666	519.164	519.067	518.965	519.025	519.050	518.910	521.569	523.142
0.7833	519.177	519.080	518.972	519.031	519.056	518.910	521.751	523.123
0.8000	519.190	519.086	518.972	519.031	519.062	518.910	521.909	523.263
0.8166	519.209	519.093	518.965	519.044	519.068	518.910	522.022	523.402
0.8333	519.221	519.099	518.972	519.050	519.075	518.910	522.110	523.377
0.8500	519.228	519.099	518.972	519.057	519.081	518.916	522.198	523.478
0.8666	519.240	519.105	518.972	519.057	519.081	518.916	522.267	523.503
0.8833	519.247	519.105	518.972	519.069	519.087	518.916	522.343	523.567
0.9000	519.253	519.112	518.978	519.076	519.094	518.916	522.475	523.592
0.9166	519.266	519.118	518.972	519.076	519.100	518.916	522.613	523.630
0.9333	519.285	519.124	518.972	519.082	519.100	518.923	522.789	523.630
0.9500	519.297	519.131	518.978	519.088	519.106	518.923	522.934	523.700
0.9666	519.304	519.137	518.978	519.095	519.112	518.923	523.054	523.675
0.9833	519.316	519.137	518.978	519.101	519.119	518.923	523.123	523.675
1.0000	519.323	519.143	518.978	519.107	519.125	518.929	523.186	523.694

TABLE A-3
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1.2000	519.392	519.175	518.984	519.151	519.156	518.941	523.796	523.763
1.4000	519.424	519.194	518.984	519.177	519.175	518.948	524.174	523.618
1.6000	519.468	519.213	518.990	519.196	519.194	518.954	524.577	523.662
1.8000	519.487	519.219	518.997	519.215	519.200	518.954	524.709	523.719
2.0000	519.493	519.225	518.997	519.221	519.207	518.960	524.760	523.694
2.2000	519.493	519.225	518.997	519.221	519.213	518.960	524.760	523.662
2.4000	519.500	519.232	519.003	519.227	519.213	518.960	524.753	523.662
2.6000	519.500	519.232	518.997	519.227	519.213	518.960	524.778	523.656
2.8000	519.506	519.238	518.997	519.227	519.219	518.960	524.760	523.630
3.0000	519.506	519.238	518.997	519.234	519.219	518.967	524.785	523.649
3.2000	519.506	519.238	518.997	519.234	519.219	518.967	524.760	523.624
3.4000	519.506	519.238	518.997	519.234	519.219	518.967	524.778	523.643
3.6000	519.506	519.238	518.997	519.240	519.219	518.967	524.753	523.630
3.8000	519.512	519.244	518.997	519.240	519.225	518.967	524.785	523.586
4.0000	519.519	519.244	518.997	519.240	519.225	518.967	524.829	523.637
4.2000	519.512	519.244	519.003	519.246	519.225	518.973	524.797	523.624
4.4000	519.519	519.244	519.009	519.240	519.225	518.973	524.772	523.611
4.6000	519.512	519.244	519.009	519.240	519.232	518.973	524.772	523.611
4.8000	519.519	519.251	519.009	519.240	519.232	518.973	524.797	523.599
5.0000	519.519	519.244	519.009	519.240	519.232	518.973	524.778	523.605
5.2000	519.525	519.251	519.009	519.240	519.232	518.973	524.854	523.611
5.4000	519.525	519.251	519.009	519.240	519.232	518.973	524.841	523.624
5.6000	519.525	519.251	519.009	519.240	519.232	518.973	524.810	523.580
5.8000	519.525	519.251	519.009	519.246	519.232	518.973	524.810	523.592
6.0000	519.525	519.257	519.009	519.246	519.238	518.973	524.860	523.624
6.2000	519.525	519.251	519.009	519.246	519.238	518.973	524.797	523.567
6.4000	519.531	519.257	519.016	519.246	519.238	518.979	524.816	523.580
6.6000	519.525	519.257	519.009	519.253	519.238	518.979	524.835	523.592
6.8000	519.531	519.257	519.016	519.253	519.238	518.979	524.835	523.605
7.0000	519.531	519.257	519.016	519.246	519.238	518.979	524.860	523.611
7.2000	519.531	519.257	519.022	519.253	519.244	518.979	524.873	523.599
7.4000	519.531	519.263	519.022	519.259	519.244	518.979	524.867	523.605
7.6000	519.531	519.263	519.022	519.259	519.244	518.979	524.860	523.649
7.8000	519.537	519.263	519.022	519.259	519.244	518.986	524.879	523.624
8.0000	519.537	519.263	519.022	519.259	519.244	518.986	524.860	523.649
8.2000	519.537	519.263	519.022	519.259	519.244	518.986	524.917	523.605
8.4000	519.537	519.263	519.022	519.265	519.244	518.986	524.873	523.637
8.6000	519.537	519.270	519.022	519.259	519.250	518.986	524.854	523.592
8.8000	519.537	519.270	519.016	519.259	519.250	518.986	524.873	523.611
9.0000	519.544	519.270	519.016	519.259	519.250	518.986	524.892	523.618
9.2000	519.537	519.263	519.016	519.265	519.244	518.986	524.854	523.624
9.4000	519.544	519.270	519.016	519.259	519.244	518.986	524.879	523.637
9.6000	519.544	519.270	519.016	519.259	519.250	518.986	524.911	523.630
9.8000	519.544	519.270	519.016	519.265	519.250	518.986	524.917	523.605
10.0000	519.544	519.270	519.016	519.265	519.250	518.986	524.873	523.630
12.0000	519.550	519.276	519.016	519.272	519.257	518.992	524.917	523.656
14.0000	519.556	519.282	519.022	519.278	519.263	518.998	524.904	523.643
16.0000	519.563	519.289	519.034	519.309	519.269	518.998	524.942	523.649
18.0000	519.569	519.289	519.034	519.309	519.276	519.004	524.904	523.681
20.0000	519.563	519.289	519.034	519.328	519.276	519.011	524.923	523.694
22.0000	519.563	519.289	519.028	519.322	519.276	519.011	524.904	523.694

TABLE A-3
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
24.0000	519.569	519.295	519.028	519.322	519.282	519.017	524.936	523.649
26.0000	519.588	519.314	519.047	519.328	519.294	519.017	524.974	523.675
28.0000	519.588	519.308	519.041	519.341	519.294	519.023	524.980	523.700
30.0000	519.594	519.314	519.047	519.341	519.301	519.023	525.030	523.694
32.0000	519.594	519.314	519.047	519.354	519.301	519.030	524.967	523.681
34.0000	519.594	519.314	519.053	519.354	519.301	519.030	524.974	523.700
36.0000	519.601	519.320	519.047	519.360	519.307	519.036	524.974	523.725
38.0000	519.601	519.327	519.053	519.360	519.313	519.036	524.974	523.732
40.0000	519.607	519.327	519.053	519.366	519.313	519.042	524.999	523.744
42.0000	519.613	519.333	519.060	519.366	519.319	519.042	525.018	523.782
44.0000	519.620	519.339	519.053	519.373	519.319	519.049	525.049	523.820
46.0000	519.620	519.339	519.060	519.373	519.326	519.049	525.049	523.776
48.0000	519.639	519.352	519.072	519.373	519.332	519.049	525.093	523.801
50.0000	519.632	519.346	519.066	519.379	519.332	519.049	525.055	523.757
52.0000	519.632	519.352	519.072	519.385	519.338	519.055	525.062	523.776
54.0000	519.651	519.365	519.085	519.392	519.345	519.061	525.087	523.801
56.0000	519.639	519.358	519.072	519.392	519.345	519.061	525.081	523.814
58.0000	519.651	519.365	519.085	519.392	519.351	519.067	525.118	523.839
60.0000	519.651	519.365	519.085	519.398	519.351	519.067	525.150	523.808
62.0000	519.645	519.365	519.072	519.398	519.351	519.067	525.112	523.833
64.0000	519.651	519.371	519.078	519.398	519.351	519.074	525.106	523.814

TABLE A-4
WATER LEVELS DURING THIRD STEP OF STEP TEST
INJECTION RATE OF 450 GPM
WELLS 31550 THROUGH 31556
10/12/95

SE2000
Environmental Logger
10/12 16:01

Unit# 639 Test 7

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Reference	518.950	518.973	518.947	518.918	518.956	518.879	519.067	519.138
PSI at Ref.	0.927	2.021	1.599	9.723	1.524	9.763	2.366	0.481
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138	0.121
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865	20.042
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086	-0.012
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Step 1 10/12 14:46:08								
Elapsed Time								
0.0000	519.601	519.358	519.091	519.385	519.332	519.067	524.199	523.719
0.0083	519.607	519.352	519.085	519.379	519.338	519.067	524.250	523.751
0.0166	519.607	519.352	519.085	519.379	519.338	519.067	524.331	523.732
0.0250	519.613	519.358	519.085	519.379	519.338	519.067	524.451	523.795
0.0333	519.620	519.358	519.085	519.385	519.338	519.067	524.571	523.770
0.0416	519.620	519.358	519.085	519.379	519.338	519.067	524.703	523.852
0.0500	519.626	519.365	519.085	519.385	519.345	519.067	524.816	523.897
0.0583	519.632	519.365	519.085	519.385	519.345	519.067	524.917	523.858
0.0666	519.639	519.365	519.085	519.385	519.345	519.067	525.005	523.903
0.0750	519.645	519.365	519.091	519.385	519.351	519.067	525.049	523.979
0.0833	519.645	519.371	519.085	519.385	519.351	519.067	525.118	524.201
0.0916	519.651	519.371	519.085	519.385	519.351	519.067	525.162	524.036
0.1000	519.658	519.377	519.085	519.392	519.357	519.067	525.200	524.074
0.1083	519.664	519.371	519.085	519.392	519.357	519.067	525.251	524.150
0.1166	519.670	519.377	519.085	519.398	519.363	519.074	525.257	524.157
0.1250	519.670	519.377	519.085	519.398	519.363	519.067	525.326	524.264
0.1333	519.677	519.384	519.085	519.398	519.363	519.067	525.364	524.290
0.1416	519.683	519.384	519.091	519.398	519.363	519.074	525.414	524.296
0.1500	519.683	519.384	519.091	519.398	519.370	519.074	525.458	524.372
0.1583	519.689	519.384	519.085	519.404	519.370	519.074	525.509	524.328
0.1666	519.689	519.390	519.085	519.404	519.370	519.074	525.559	524.385
0.1750	519.696	519.390	519.091	519.411	519.370	519.074	525.591	524.448
0.1833	519.696	519.390	519.091	519.411	519.370	519.074	525.603	524.461
0.1916	519.702	519.390	519.091	519.411	519.376	519.074	525.654	524.436
0.2000	519.702	519.396	519.091	519.411	519.376	519.074	525.698	524.499
0.2083	519.708	519.396	519.091	519.417	519.376	519.074	525.717	524.512
0.2166	519.708	519.396	519.091	519.417	519.382	519.074	525.761	524.550
0.2250	519.715	519.396	519.091	519.417	519.382	519.074	525.792	524.556
0.2333	519.715	519.396	519.091	519.423	519.382	519.074	525.836	524.600
0.2416	519.721	519.403	519.091	519.423	519.382	519.074	525.893	524.619

TABLE A-4
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
0.2500	519.727	519.403	519.091	519.423	519.382	519.080	525.943	524.715
0.2583	519.727	519.403	519.091	519.430	519.389	519.080	526.000	524.683
0.2666	519.733	519.403	519.091	519.430	519.389	519.080	526.050	524.734
0.2750	519.740	519.409	519.091	519.436	519.395	519.080	526.101	524.784
0.2833	519.740	519.409	519.091	519.436	519.395	519.080	526.151	524.696
0.2916	519.746	519.409	519.091	519.436	519.395	519.080	526.227	524.778
0.3000	519.752	519.415	519.091	519.442	519.395	519.080	526.271	524.860
0.3083	519.759	519.415	519.091	519.442	519.395	519.080	526.340	524.930
0.3166	519.765	519.415	519.091	519.442	519.401	519.080	526.403	524.956
0.3250	519.765	519.422	519.091	519.449	519.401	519.080	526.485	524.994
0.3333	519.771	519.422	519.091	519.449	519.407	519.080	526.561	524.981
0.3500	519.784	519.428	519.091	519.455	519.407	519.086	526.718	525.146
0.3666	519.797	519.434	519.091	519.461	519.414	519.086	526.857	525.038
0.3833	519.809	519.440	519.091	519.468	519.420	519.086	527.002	525.323
0.4000	519.816	519.440	519.091	519.474	519.426	519.086	527.115	525.343
0.4166	519.828	519.447	519.091	519.480	519.426	519.093	527.128	525.450
0.4333	519.828	519.447	519.091	519.480	519.432	519.093	527.178	525.444
0.4500	519.835	519.453	519.091	519.487	519.432	519.093	527.184	525.577
0.4666	519.841	519.453	519.097	519.487	519.432	519.093	527.197	525.596
0.4833	519.841	519.453	519.097	519.487	519.439	519.093	527.279	525.729
0.5000	519.847	519.453	519.097	519.499	519.439	519.093	527.361	525.888
0.5166	519.854	519.459	519.097	519.499	519.445	519.093	527.418	525.882
0.5333	519.860	519.459	519.097	519.499	519.445	519.099	527.455	525.907
0.5500	519.860	519.466	519.097	519.505	519.445	519.093	527.518	525.875
0.5666	519.860	519.466	519.097	519.505	519.445	519.099	527.481	526.085
0.5833	519.860	519.466	519.097	519.505	519.451	519.099	527.481	526.047
0.6000	519.866	519.466	519.097	519.512	519.451	519.099	527.506	526.231
0.6166	519.866	519.466	519.097	519.512	519.451	519.099	527.468	526.262
0.6333	519.866	519.466	519.103	519.512	519.451	519.099	527.487	526.281
0.6500	519.866	519.466	519.097	519.512	519.451	519.099	527.481	526.262
0.6666	519.866	519.466	519.097	519.512	519.451	519.099	527.556	526.351
0.6833	519.873	519.466	519.097	519.512	519.451	519.099	527.537	526.339
0.7000	519.873	519.472	519.097	519.512	519.451	519.099	527.512	526.389
0.7166	519.873	519.472	519.097	519.512	519.451	519.099	527.518	526.339
0.7333	519.873	519.466	519.097	519.512	519.451	519.099	527.518	526.446
0.7500	519.873	519.466	519.103	519.518	519.451	519.099	527.544	526.358
0.7666	519.873	519.472	519.097	519.518	519.458	519.099	527.556	526.326
0.7833	519.879	519.472	519.097	519.518	519.458	519.099	527.581	526.332
0.8000	519.873	519.472	519.097	519.518	519.458	519.099	527.575	526.402
0.8166	519.873	519.472	519.097	519.518	519.451	519.099	527.562	526.427
0.8333	519.873	519.472	519.097	519.518	519.458	519.099	527.562	526.377
0.8500	519.879	519.472	519.103	519.518	519.458	519.099	527.600	526.377
0.8666	519.879	519.472	519.097	519.518	519.458	519.099	527.556	526.345
0.8833	519.879	519.472	519.103	519.518	519.458	519.099	527.594	526.370
0.9000	519.879	519.472	519.103	519.518	519.458	519.099	527.607	526.358
0.9166	519.879	519.472	519.103	519.518	519.458	519.099	527.588	526.345
0.9333	519.885	519.472	519.103	519.518	519.458	519.099	527.600	526.320
0.9500	519.879	519.472	519.103	519.518	519.458	519.099	527.600	526.358
0.9666	519.879	519.472	519.103	519.524	519.458	519.105	527.644	526.332
0.9833	519.879	519.472	519.103	519.524	519.458	519.105	527.638	526.269
1.0000	519.885	519.478	519.097	519.524	519.458	519.099	527.707	526.326

TABLE A-4
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1.2000	519.904	519.485	519.103	519.531	519.470	519.105	527.808	526.364
1.4000	519.917	519.491	519.110	519.537	519.476	519.112	527.909	526.294
1.6000	519.917	519.491	519.110	519.537	519.476	519.112	527.915	526.269
1.8000	519.911	519.491	519.110	519.543	519.476	519.105	527.915	526.275
2.0000	519.923	519.497	519.110	519.543	519.483	519.112	528.010	526.281
2.2000	519.930	519.497	519.110	519.550	519.483	519.112	528.123	526.408
2.4000	519.936	519.504	519.110	519.550	519.489	519.112	528.180	526.218
2.6000	519.936	519.504	519.116	519.550	519.489	519.112	528.155	526.224
2.8000	519.936	519.504	519.116	519.556	519.489	519.112	528.136	526.320
3.0000	519.936	519.504	519.116	519.556	519.489	519.112	528.155	526.313
3.2000	519.930	519.504	519.116	519.556	519.489	519.118	528.111	526.320
3.4000	519.942	519.504	519.116	519.556	519.489	519.118	528.199	526.313
3.6000	519.942	519.510	519.116	519.556	519.489	519.118	528.149	526.313
3.8000	519.936	519.510	519.116	519.562	519.489	519.118	528.180	526.339
4.0000	519.942	519.510	519.116	519.562	519.489	519.118	528.205	526.339
4.2000	519.948	519.510	519.116	519.562	519.495	519.118	528.212	526.281
4.4000	519.942	519.510	519.116	519.562	519.495	519.118	528.205	526.300
4.6000	519.942	519.510	519.116	519.562	519.495	519.118	528.149	526.250
4.8000	519.948	519.510	519.116	519.562	519.495	519.118	528.218	526.313
5.0000	519.948	519.510	519.122	519.569	519.495	519.118	528.199	526.281
5.2000	519.942	519.510	519.122	519.569	519.495	519.118	528.230	526.262
5.4000	519.948	519.510	519.122	519.569	519.501	519.124	528.262	526.262
5.6000	519.942	519.510	519.122	519.562	519.495	519.124	528.136	526.262
5.8000	519.955	519.516	519.122	519.569	519.501	519.124	528.300	526.275
6.0000	519.955	519.510	519.122	519.569	519.501	519.124	528.275	526.281
6.2000	519.955	519.516	519.122	519.575	519.501	519.124	528.275	526.275
6.4000	519.948	519.516	519.122	519.575	519.495	519.124	528.199	526.231
6.6000	519.955	519.516	519.129	519.575	519.501	519.124	528.262	526.237
6.8000	519.955	519.516	519.129	519.581	519.501	519.124	528.344	526.332
7.0000	519.948	519.516	519.129	519.581	519.501	519.124	528.218	526.199
7.2000	519.961	519.516	519.129	519.581	519.501	519.124	528.344	526.199
7.4000	519.955	519.516	519.129	519.581	519.501	519.124	528.268	526.275
7.6000	519.948	519.516	519.129	519.581	519.501	519.130	528.249	526.243
7.8000	519.961	519.523	519.129	519.581	519.501	519.124	528.319	526.193
8.0000	519.961	519.523	519.129	519.575	519.501	519.124	528.319	526.186
8.2000	519.961	519.516	519.129	519.575	519.501	519.124	528.281	526.243
8.4000	519.961	519.523	519.122	519.575	519.508	519.130	528.312	526.218
8.6000	519.948	519.516	519.122	519.575	519.501	519.130	528.123	526.193
8.8000	519.961	519.523	519.129	519.575	519.501	519.130	528.319	526.243
9.0000	519.961	519.523	519.135	519.575	519.508	519.130	528.218	526.294
9.2000	519.961	519.523	519.129	519.575	519.508	519.130	528.275	526.231
9.4000	519.961	519.523	519.129	519.581	519.508	519.130	528.275	526.167
9.6000	519.967	519.523	519.129	519.581	519.508	519.130	528.338	526.243
9.8000	519.961	519.523	519.129	519.581	519.508	519.130	528.275	526.224
10.0000	519.961	519.523	519.129	519.575	519.508	519.130	528.268	526.218
12.0000	519.961	519.523	519.116	519.588	519.508	519.137	528.287	526.066
14.0000	519.955	519.523	519.122	519.581	519.508	519.137	528.300	526.199
16.0000	519.974	519.529	519.129	519.594	519.520	519.143	528.445	526.231
18.0000	519.974	519.542	519.135	519.600	519.527	519.143	528.312	526.123
20.0000	519.986	519.548	519.135	519.594	519.533	519.149	528.375	526.212
22.0000	519.986	519.542	519.129	519.600	519.533	519.156	528.432	526.180

TABLE A-4
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
24.0000	519.986	519.542	519.141	519.613	519.533	519.156	528.331	526.250
26.0000	519.986	519.548	519.135	519.619	519.533	519.156	528.407	526.224
28.0000	519.986	519.548	519.141	519.619	519.539	519.162	528.407	526.237
30.0000	519.999	519.554	519.141	519.619	519.545	519.162	528.407	526.148
32.0000	520.005	519.561	519.147	519.626	519.552	519.168	528.457	526.256
34.0000	520.012	519.573	519.166	519.632	519.558	519.168	528.344	526.180
36.0000	520.024	519.580	519.160	519.632	519.564	519.175	528.489	526.262
38.0000	520.024	519.580	519.166	519.638	519.564	519.175	528.489	526.155
40.0000	520.031	519.586	519.160	519.645	519.571	519.181	528.483	526.408
42.0000	520.024	519.580	519.160	519.651	519.571	519.187	528.508	526.250
44.0000	520.024	519.580	519.160	519.651	519.571	519.187	528.501	526.351
46.0000	520.018	519.580	519.154	519.651	519.571	519.187	528.420	526.224
48.0000	520.024	519.580	519.160	519.651	519.571	519.187	528.445	526.231
50.0000	520.037	519.599	519.179	519.651	519.577	519.187	528.413	526.281
52.0000	520.050	519.599	519.166	519.664	519.589	519.193	528.691	526.427
54.0000	520.062	519.611	519.179	519.670	519.596	519.200	528.653	526.434
56.0000	520.056	519.605	519.173	519.670	519.596	519.200	528.628	526.453
58.0000	520.050	519.605	519.173	519.676	519.589	519.200	528.577	526.402
60.0000	520.056	519.605	519.173	519.676	519.596	519.206	528.646	526.478
62.0000	520.069	519.618	519.191	519.683	519.602	519.206	528.615	526.440

TABLE A-5
WATER LEVELS DURING STEP TEST RECOVERY
WELLS 31550 THROUGH 31556
FROM 10/12/95 TO 10/13/95

SE2000
Environmental Logger
10/13 10:30

Unit# 639 Test 7

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Reference	518.950	518.973	518.947	518.918	518.956	518.879	519.067	519.138
PSI at Ref.	0.927	2.021	1.599	9.723	1.524	9.763	2.366	0.481
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138	0.121
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865	20.042
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086	-0.012
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Step 2 10/12 15:49:34								
Elapsed Time								
0.0000	520.050	519.618	519.198	519.664	519.602	519.212	527.846	526.167
0.0083	520.018	519.605	519.198	519.664	519.596	519.206	527.594	525.996
0.0166	519.980	519.592	519.198	519.657	519.583	519.206	527.128	525.787
0.0250	519.942	519.580	519.191	519.651	519.571	519.206	526.636	525.558
0.0333	519.911	519.567	519.198	519.638	519.552	519.200	526.145	525.336
0.0416	519.879	519.548	519.191	519.626	519.539	519.200	525.717	525.121
0.0500	519.854	519.542	519.191	519.619	519.527	519.200	525.332	524.911
0.0583	519.828	519.529	519.191	519.607	519.520	519.193	525.024	524.619
0.0666	519.809	519.516	519.191	519.600	519.508	519.193	524.747	524.436
0.0750	519.797	519.510	519.191	519.588	519.501	519.187	524.508	524.245
0.0833	519.778	519.504	519.191	519.575	519.495	519.187	524.300	524.049
0.0916	519.765	519.497	519.185	519.562	519.489	519.181	524.117	523.865
0.1000	519.746	519.491	519.191	519.556	519.476	519.181	523.947	523.706
0.1083	519.733	519.485	519.185	519.543	519.470	519.181	523.777	523.541
0.1166	519.715	519.478	519.185	519.537	519.464	519.175	523.614	523.370
0.1250	519.702	519.472	519.185	519.524	519.458	519.175	523.444	523.218
0.1333	519.683	519.466	519.185	519.518	519.451	519.175	523.274	523.053
0.1416	519.664	519.453	519.185	519.512	519.445	519.168	523.104	522.914
0.1500	519.651	519.453	519.179	519.499	519.432	519.168	522.928	522.749
0.1583	519.632	519.440	519.179	519.487	519.426	519.168	522.758	522.603
0.1666	519.620	519.434	519.185	519.487	519.420	519.162	522.588	522.457
0.1750	519.607	519.428	519.179	519.474	519.414	519.162	522.431	522.318
0.1833	519.594	519.422	519.179	519.468	519.407	519.162	522.280	522.185
0.1916	519.582	519.415	519.179	519.455	519.401	519.162	522.141	522.064
0.2000	519.569	519.409	519.179	519.449	519.395	519.156	522.009	521.938
0.2083	519.556	519.409	519.173	519.442	519.389	519.156	521.883	521.830
0.2166	519.544	519.403	519.173	519.436	519.382	519.156	521.770	521.716
0.2250	519.531	519.396	519.173	519.430	519.376	519.156	521.663	521.621
0.2333	519.519	519.390	519.173	519.423	519.376	519.149	521.563	521.532
0.2416	519.506	519.384	519.173	519.417	519.370	519.149	521.468	521.437
0.2500	519.500	519.384	519.173	519.411	519.363	519.149	521.374	521.355

TABLE A-5
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
0.2583	519.487	519.377	519.173	519.404	519.357	519.143	521.292	521.279
0.2666	519.481	519.371	519.173	519.392	519.357	519.143	521.217	521.209
0.2750	519.474	519.371	519.173	519.392	519.351	519.143	521.141	521.139
0.2833	519.462	519.365	519.166	519.385	519.345	519.143	521.072	521.076
0.2916	519.462	519.358	519.166	519.379	519.345	519.143	521.003	521.006
0.3000	519.449	519.358	519.166	519.373	519.338	519.137	520.946	520.949
0.3083	519.443	519.352	519.166	519.366	519.338	519.137	520.883	520.898
0.3166	519.436	519.352	519.166	519.366	519.332	519.137	520.827	520.841
0.3250	519.430	519.352	519.166	519.360	519.332	519.137	520.777	520.797
0.3333	519.424	519.346	519.166	519.354	519.326	519.137	520.720	520.746
0.3500	519.411	519.339	519.166	519.347	519.319	519.130	520.626	520.664
0.3666	519.398	519.333	519.160	519.335	519.313	519.130	520.544	520.582
0.3833	519.392	519.333	519.160	519.328	519.307	519.130	520.468	520.506
0.4000	519.386	519.327	519.160	519.322	519.307	519.124	520.399	520.442
0.4166	519.379	519.320	519.160	519.316	519.301	519.124	520.330	520.379
0.4333	519.373	519.320	519.160	519.303	519.294	519.124	520.267	520.322
0.4500	519.360	519.314	519.160	519.303	519.294	519.124	520.211	520.265
0.4666	519.354	519.314	519.160	519.291	519.288	519.124	520.154	520.214
0.4833	519.354	519.308	519.154	519.278	519.288	519.118	520.104	520.164
0.5000	519.348	519.308	519.154	519.272	519.282	519.118	520.060	520.119
0.5166	519.341	519.301	519.154	519.265	519.282	519.118	520.016	520.075
0.5333	519.335	519.301	519.154	519.265	519.276	519.118	519.972	520.031
0.5500	519.329	519.301	519.154	519.259	519.276	519.118	519.928	519.993
0.5666	519.329	519.301	519.154	519.259	519.269	519.112	519.890	519.948
0.5833	519.323	519.295	519.154	519.253	519.269	519.118	519.852	519.917
0.6000	519.316	519.295	519.154	519.246	519.269	519.112	519.821	519.885
0.6166	519.310	519.289	519.154	519.246	519.269	519.112	519.789	519.853
0.6333	519.310	519.289	519.154	519.240	519.263	519.112	519.758	519.828
0.6500	519.310	519.289	519.154	519.240	519.263	519.112	519.733	519.803
0.6666	519.304	519.282	519.154	519.240	519.263	519.112	519.714	519.777
0.6833	519.304	519.282	519.154	519.234	519.257	519.112	519.695	519.758
0.7000	519.297	519.282	519.154	519.234	519.257	519.105	519.676	519.739
0.7166	519.297	519.282	519.147	519.234	519.257	519.105	519.664	519.727
0.7333	519.291	519.282	519.154	519.227	519.257	519.105	519.657	519.714
0.7500	519.291	519.276	519.154	519.234	519.257	519.105	519.645	519.701
0.7666	519.291	519.276	519.154	519.227	519.250	519.105	519.639	519.689
0.7833	519.291	519.276	519.154	519.227	519.250	519.105	519.632	519.676
0.8000	519.285	519.276	519.154	519.227	519.250	519.105	519.626	519.663
0.8166	519.285	519.276	519.147	519.227	519.250	519.105	519.626	519.657
0.8333	519.285	519.276	519.154	519.227	519.250	519.105	519.626	519.651
0.8500	519.285	519.276	519.154	519.221	519.250	519.105	519.626	519.644
0.8666	519.285	519.270	519.154	519.221	519.244	519.105	519.620	519.638
0.8833	519.278	519.270	519.147	519.221	519.244	519.105	519.620	519.632
0.9000	519.278	519.270	519.147	519.221	519.244	519.105	519.620	519.625
0.9166	519.278	519.270	519.154	519.221	519.244	519.105	519.620	519.619
0.9333	519.278	519.270	519.147	519.221	519.244	519.105	519.613	519.619
0.9500	519.278	519.270	519.147	519.221	519.244	519.105	519.613	519.613
0.9666	519.278	519.270	519.147	519.215	519.244	519.105	519.613	519.606
0.9833	519.278	519.270	519.154	519.215	519.244	519.105	519.613	519.606
1.0000	519.272	519.270	519.154	519.215	519.244	519.105	519.613	519.606
1.2000	519.266	519.263	519.154	519.215	519.238	519.099	519.613	519.581

TABLE A-5
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1.4000	519.266	519.257	519.147	519.208	519.238	519.099	519.613	519.562
1.6000	519.259	519.257	519.147	519.208	519.232	519.099	519.613	519.467
1.8000	519.253	519.257	519.147	519.202	519.225	519.099	519.607	519.505
2.0000	519.253	519.251	519.147	519.202	519.225	519.093	519.607	519.499
2.2000	519.247	519.251	519.141	519.196	519.225	519.093	519.607	519.492
2.4000	519.247	519.244	519.141	519.196	519.219	519.093	519.607	519.467
2.6000	519.247	519.244	519.141	519.189	519.219	519.093	519.607	519.467
2.8000	519.240	519.244	519.141	519.189	519.219	519.086	519.607	519.467
3.0000	519.234	519.244	519.141	519.183	519.213	519.086	519.601	519.461
3.2000	519.234	519.238	519.141	519.183	519.213	519.086	519.607	519.454
3.4000	519.234	519.238	519.141	519.183	519.213	519.086	519.601	519.448
3.6000	519.228	519.238	519.135	519.177	519.207	519.086	519.601	519.442
3.8000	519.228	519.232	519.135	519.177	519.207	519.080	519.601	519.448
4.0000	519.221	519.232	519.135	519.170	519.207	519.080	519.601	519.435
4.2000	519.221	519.232	519.135	519.170	519.207	519.080	519.601	519.442
4.4000	519.221	519.225	519.135	519.170	519.200	519.080	519.601	519.429
4.6000	519.221	519.225	519.135	519.170	519.200	519.080	519.601	519.429
4.8000	519.215	519.225	519.135	519.164	519.200	519.080	519.601	519.435
5.0000	519.215	519.225	519.129	519.164	519.194	519.080	519.601	519.429
5.2000	519.215	519.219	519.129	519.164	519.194	519.080	519.601	519.429
5.4000	519.209	519.219	519.129	519.158	519.194	519.074	519.601	519.423
5.6000	519.209	519.219	519.129	519.164	519.194	519.074	519.601	519.423
5.8000	519.209	519.219	519.129	519.158	519.194	519.074	519.601	519.416
6.0000	519.209	519.219	519.122	519.158	519.194	519.074	519.601	519.416
6.2000	519.202	519.213	519.122	519.158	519.188	519.074	519.601	519.410
6.4000	519.202	519.213	519.122	519.158	519.188	519.074	519.601	519.410
6.6000	519.202	519.213	519.122	519.151	519.188	519.074	519.601	519.410
6.8000	519.202	519.213	519.122	519.151	519.188	519.067	519.601	519.410
7.0000	519.202	519.213	519.122	519.151	519.188	519.067	519.601	519.404
7.2000	519.196	519.213	519.122	519.151	519.188	519.067	519.601	519.404
7.4000	519.196	519.213	519.122	519.151	519.181	519.067	519.601	519.397
7.6000	519.196	519.213	519.122	519.151	519.181	519.067	519.601	519.397
7.8000	519.196	519.206	519.122	519.151	519.181	519.067	519.601	519.397
8.0000	519.196	519.206	519.122	519.145	519.181	519.067	519.601	519.397
8.2000	519.190	519.206	519.122	519.145	519.181	519.067	519.601	519.391
8.4000	519.190	519.206	519.122	519.145	519.181	519.061	519.601	519.391
8.6000	519.190	519.200	519.116	519.145	519.175	519.067	519.601	519.391
8.8000	519.190	519.200	519.116	519.145	519.175	519.061	519.601	519.384
9.0000	519.190	519.200	519.116	519.139	519.175	519.061	519.601	519.384
9.2000	519.183	519.200	519.116	519.139	519.175	519.061	519.601	519.384
9.4000	519.183	519.200	519.116	519.132	519.175	519.061	519.601	519.384
9.6000	519.183	519.200	519.116	519.139	519.175	519.061	519.601	519.384
9.8000	519.183	519.194	519.116	519.139	519.175	519.061	519.601	519.378
10.0000	519.177	519.194	519.116	519.139	519.169	519.055	519.601	519.384
12.0000	519.171	519.188	519.110	519.126	519.163	519.055	519.601	519.372
14.0000	519.164	519.181	519.116	519.126	519.156	519.049	519.601	519.365
16.0000	519.152	519.175	519.110	519.113	519.150	519.042	519.601	519.359
18.0000	519.145	519.169	519.110	519.113	519.144	519.042	519.601	519.346
20.0000	519.139	519.162	519.103	519.101	519.137	519.036	519.601	519.340
22.0000	519.133	519.156	519.097	519.095	519.131	519.030	519.601	519.334
24.0000	519.127	519.150	519.091	519.088	519.125	519.030	519.601	519.327

TABLE A-5
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
26.0000	519.120	519.143	519.091	519.088	519.119	519.023	519.249	519.334
28.0000	519.108	519.131	519.085	519.082	519.112	519.017	519.242	519.321
30.0000	519.095	519.124	519.072	519.076	519.106	519.017	519.236	519.315
32.0000	519.095	519.118	519.072	519.069	519.100	519.011	519.230	519.308
34.0000	519.089	519.112	515.081	519.063	519.100	519.011	513.459	519.308
36.0000	519.089	519.112	515.263	519.057	519.094	519.011	513.496	519.302
38.0000	519.082	519.112	515.589	519.057	519.094	519.011	513.509	519.302
40.0000	519.076	519.105	515.144	519.057	519.087	519.004	513.515	519.296
42.0000	519.076	519.105	515.150	519.050	519.087	519.004	513.521	519.290
44.0000	519.070	519.099	515.162	519.050	519.081	518.998	513.534	519.283
46.0000	519.070	519.099	515.175	519.044	519.081	518.998	513.540	519.283
48.0000	519.063	519.093	515.187	519.044	519.075	518.992	513.546	519.258
50.0000	519.057	519.093	515.194	519.044	519.075	518.998	513.553	519.264
52.0000	519.057	519.086	515.194	519.038	519.068	518.992	513.553	519.264
54.0000	519.051	519.086	515.200	519.031	519.068	518.992	513.553	519.258
56.0000	519.051	519.080	515.206	519.031	519.062	518.986	513.559	519.258
58.0000	519.044	519.080	515.213	519.031	519.062	518.986	513.559	519.252
60.0000	519.044	519.080	515.213	519.025	519.056	518.986	513.559	519.252
62.0000	519.044	519.080	515.213	519.025	519.056	518.979	513.559	519.252
64.0000	519.038	519.074	515.219	519.019	519.056	518.979	513.559	519.245
66.0000	519.038	519.074	515.225	519.019	519.050	518.979	513.559	519.239
68.0000	519.038	519.067	515.225	519.012	519.050	518.979	513.559	519.245
70.0000	519.032	519.067	515.231	519.019	519.050	518.973	513.565	519.245
72.0000	519.032	519.061	515.238	519.019	519.050	518.973	513.565	519.245
74.0000	519.025	519.061	515.238	519.012	519.043	518.973	513.565	519.239
76.0000	519.025	519.061	515.225	519.012	519.043	518.967	513.565	519.239
78.0000	519.025	519.061	515.827	519.006	519.043	518.967	513.559	519.239
80.0000	519.019	519.055	519.103	519.012	519.037	518.967	513.565	519.233
82.0000	519.019	519.055	519.047	519.006	519.037	518.967	513.565	519.226
84.0000	519.019	519.055	519.022	519.006	519.037	518.960	513.559	519.233
86.0000	519.019	519.055	519.009	519.000	519.031	518.960	513.559	519.226
88.0000	519.019	514.227	519.003	519.000	519.031	518.960	519.180	519.226
90.0000	519.013	514.264	518.997	519.000	519.031	518.960	519.148	519.226
92.0000	519.013	514.264	518.990	519.000	519.031	518.960	519.123	519.226
94.0000	519.013	514.264	518.990	519.000	519.031	518.960	519.111	519.220
96.0000	519.013	514.271	518.990	518.993	519.031	518.960	519.104	519.220
98.0000	519.006	514.271	518.984	518.993	519.025	518.954	519.104	519.220
100.000	519.006	514.271	518.984	518.993	519.025	518.954	519.098	519.214
110.000	519.000	514.277	518.972	518.987	515.412	518.948	519.085	519.207
120.000	518.994	514.283	518.965	518.981	515.412	518.948	519.073	519.201
130.000	518.987	514.277	518.959	518.974	515.412	518.941	519.073	519.144
140.000	518.981	519.017	518.953	518.968	515.412	518.935	519.060	519.157
150.000	518.975	519.004	518.947	496.375	515.412	518.929	519.054	519.157
160.000	518.975	518.998	518.947	496.388	518.974	518.929	519.054	519.150
170.000	517.022	518.998	518.934	496.388	518.962	518.923	519.048	519.144
180.000	516.851	518.991	518.934	496.388	518.962	518.923	519.041	519.144
190.000	516.921	518.985	518.928	518.955	518.956	518.916	519.035	519.138
200.000	516.959	518.985	518.921	518.949	518.949	496.333	519.035	519.131
210.000	516.971	518.979	518.921	518.949	518.949	496.340	519.029	519.131
220.000	516.971	518.973	518.915	518.943	518.943	496.340	519.023	519.125
230.000	518.931	518.973	518.915	518.943	518.943	518.885	519.023	519.125

TABLE A-5
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
240.000	518.931	518.973	518.909	518.936	518.937	518.885	519.016	519.119
250.000	518.924	518.966	518.909	518.930	518.937	518.879	519.016	519.119
260.000	518.924	518.966	518.903	518.930	518.930	518.879	519.010	519.112
270.000	518.918	518.960	518.903	518.924	518.930	518.872	519.010	519.112
280.000	518.918	518.960	518.903	518.930	518.930	518.872	519.010	519.112
290.000	518.918	518.960	518.896	518.924	518.924	518.872	519.004	519.106
300.000	518.912	518.954	518.896	518.924	518.924	518.866	519.004	519.106
310.000	518.912	518.954	518.896	518.918	518.924	518.866	519.004	519.106
320.000	518.912	518.947	518.890	518.918	518.918	518.866	518.997	519.100
330.000	518.905	518.947	518.890	518.918	518.918	518.860	518.997	519.100
340.000	518.905	518.947	518.890	518.918	518.918	518.860	518.997	519.100
350.000	518.899	518.947	518.890	518.911	518.918	518.860	518.991	519.093
360.000	518.899	518.941	518.884	518.911	518.912	518.853	518.991	519.093
370.000	518.899	518.941	518.884	518.911	518.912	518.853	518.991	519.093
380.000	518.899	518.941	518.884	518.905	518.912	518.853	518.991	519.093
390.000	518.899	518.941	518.884	518.905	518.912	518.853	518.991	519.093
400.000	518.899	518.941	518.884	518.905	518.905	518.853	518.985	519.093
410.000	518.899	518.941	518.877	518.905	518.905	518.853	518.985	519.093
420.000	518.899	518.941	518.877	518.905	518.905	518.853	518.985	519.093
430.000	518.899	518.941	518.877	518.905	518.905	518.853	518.985	519.087
440.000	518.893	518.941	518.877	518.905	518.905	518.853	518.985	519.087
450.000	518.893	518.935	518.877	518.899	518.905	518.847	518.985	519.087
460.000	518.893	518.935	518.877	518.899	518.899	518.847	518.979	519.087
470.000	518.893	518.935	518.877	518.899	518.899	518.847	518.985	519.087
480.000	518.893	518.935	518.877	518.899	518.905	518.847	518.985	519.087
490.000	518.893	518.935	518.871	518.899	518.899	518.841	518.979	519.081
500.000	518.886	518.928	518.871	518.892	518.899	518.841	518.979	519.081
510.000	518.886	518.928	518.871	518.892	518.899	518.841	518.979	519.081
520.000	518.886	518.928	518.871	518.899	518.899	518.841	518.979	519.081
530.000	518.886	518.928	518.871	518.892	518.893	518.841	518.972	519.081
540.000	518.886	518.928	518.871	518.892	518.893	518.841	518.972	519.081
550.000	518.886	518.928	518.871	518.892	518.893	518.841	518.972	519.081
560.000	518.880	518.922	518.865	518.892	518.893	518.834	518.972	519.074
570.000	518.880	518.922	518.865	518.886	518.893	518.834	518.972	519.074
580.000	518.880	518.922	518.865	518.886	518.893	518.834	518.972	519.074
590.000	518.880	518.922	518.865	518.892	518.893	518.834	518.972	519.074
600.000	518.880	518.922	518.865	518.886	518.893	518.834	518.966	519.074
610.000	518.880	518.922	518.865	518.886	518.886	518.828	518.966	519.074
620.000	518.880	518.922	518.865	518.886	518.886	518.834	518.966	519.074
630.000	518.874	518.922	518.865	518.886	518.886	518.828	518.966	519.074
640.000	518.880	518.922	518.859	518.886	518.886	518.828	518.966	519.074
650.000	518.874	518.916	518.859	518.886	518.886	518.828	518.966	519.068
660.000	518.874	518.916	518.865	518.886	518.886	518.828	518.966	519.068
670.000	518.874	518.916	518.859	518.886	518.880	518.828	518.960	519.068
680.000	518.874	518.916	518.859	518.880	518.880	518.828	518.960	519.068
690.000	518.874	518.916	518.859	518.880	518.880	518.828	518.960	519.068
700.000	518.874	518.916	518.859	518.880	518.886	518.828	518.960	519.068
710.000	518.874	518.916	518.859	518.880	518.880	518.828	518.966	519.068
720.000	518.874	518.916	518.859	518.880	518.880	518.828	518.960	519.068
730.000	518.874	518.916	518.859	518.880	518.880	518.828	518.960	519.068
740.000	518.874	518.916	518.859	518.880	518.880	518.822	518.960	519.068

TABLE A-5
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
750.000	518.874	518.916	518.859	518.880	518.880	518.822	518.960	519.068
760.000	518.874	518.916	518.859	518.880	518.880	518.822	518.960	519.062
770.000	518.874	518.916	518.859	518.880	518.880	518.822	518.960	519.062
780.000	518.867	518.916	518.859	518.880	518.880	518.822	518.960	519.062
790.000	518.874	518.916	518.852	518.880	518.880	518.822	518.960	519.062
800.000	518.867	518.909	518.852	518.880	518.874	518.822	518.953	519.062
810.000	518.867	518.909	518.852	518.873	518.874	518.822	518.953	519.062
820.000	518.867	518.909	518.852	518.880	518.874	518.822	518.953	519.062
830.000	518.867	518.909	518.852	518.873	518.874	518.816	518.953	519.055
840.000	518.867	518.909	518.852	518.880	518.880	518.822	518.953	519.062
850.000	518.861	518.909	518.846	518.873	518.874	518.816	518.953	519.055
860.000	518.867	518.909	518.846	518.873	518.874	518.816	518.953	519.055
870.000	518.861	518.909	518.846	518.873	518.874	518.816	518.953	519.055
880.000	518.861	518.909	518.852	518.873	518.874	518.816	518.953	519.055
890.000	518.867	518.909	518.852	518.873	518.874	518.816	518.953	519.055
900.000	518.861	518.903	518.846	518.873	518.874	518.816	518.953	519.055
910.000	518.867	518.909	518.846	518.873	518.868	518.816	518.947	519.055
920.000	518.861	518.903	518.846	518.867	518.868	518.809	518.947	519.049
930.000	518.861	518.903	518.846	518.873	518.868	518.816	518.947	519.055
940.000	518.861	518.903	518.846	518.867	518.868	518.809	518.947	519.049
950.000	518.861	518.903	518.846	518.873	518.868	518.809	518.947	519.049
960.000	518.861	518.903	518.846	518.867	518.868	518.809	518.947	519.049
970.000	518.855	518.903	518.840	518.867	518.861	518.803	518.941	519.043
980.000	518.855	518.897	518.840	518.867	518.861	518.809	518.941	519.049
990.000	518.855	518.897	518.840	518.867	518.868	518.809	518.941	519.043
1000.00	518.861	518.903	518.840	518.867	518.868	518.809	518.947	519.049
1010.00	518.855	518.897	518.840	518.867	518.861	518.803	518.941	519.043
1020.00	518.855	518.897	518.840	518.867	518.861	518.809	518.941	519.043
1030.00	518.855	518.897	518.840	518.867	518.868	518.809	518.941	519.049
1040.00	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.049
1050.00	518.855	518.897	518.833	518.861	518.868	518.803	518.941	519.043
1060.00	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.043
1070.00	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.043
1080.00	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.043
1090.00	518.855	518.897	518.833	518.861	518.861	518.803	518.941	519.043
1100.00	518.855	518.897	518.840	518.867	518.861	518.803	518.941	519.049
1110.00	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.049
1120.00	518.867	518.909	518.846	518.861	518.868	518.803	518.947	519.049

TABLE A-6
WATER LEVELS DURING 72-HOUR CONSTANT RATE INJECTION TEST
INJECTION RATE OF 300 GPM
WELLS 31550 THROUGH 31556
FROM 10/13/95 TO 10/16/95

SE2000
Environmental Logger
10/16 15:30

Unit# 639 Test 0

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Reference	518.855	518.897	518.840	518.861	518.861	518.803	518.941	519.049
PSI at Ref.	0.892	1.988	1.550	9.699	1.486	9.730	2.308	0.435
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138	0.121
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865	20.042
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086	-0.012
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
			Step 1 10/13 11:10:03					
Elapsed Time								
0.0000	518.855	518.909	518.858	518.861	518.861	518.809	518.959	519.074
0.0083	518.855	518.909	518.852	518.861	518.867	518.809	518.953	519.074
0.0166	518.855	518.909	518.852	518.861	518.867	518.809	518.959	519.068
0.0250	518.855	518.903	518.852	518.861	518.867	518.803	518.959	519.068
0.0333	518.855	518.903	518.852	518.861	518.867	518.809	518.966	519.080
0.0416	518.855	518.903	518.852	518.861	518.867	518.809	518.966	519.093
0.0500	518.855	518.903	518.852	518.861	518.867	518.809	518.984	519.118
0.0583	518.855	518.909	518.852	518.861	518.867	518.803	519.003	519.169
0.0666	518.855	518.909	518.852	518.861	518.867	518.809	519.047	519.219
0.0750	518.855	518.909	518.852	518.861	518.867	518.803	519.104	519.295
0.0833	518.855	518.909	518.852	518.867	518.867	518.803	519.179	519.384
0.0916	518.855	518.915	518.852	518.867	518.873	518.809	519.274	519.447
0.1000	518.855	518.915	518.852	518.867	518.873	518.809	519.380	519.536
0.1083	518.861	518.915	518.852	518.867	518.873	518.809	519.500	519.619
0.1166	518.861	518.922	518.852	518.879	518.879	518.809	519.531	520.094
0.1250	518.867	518.922	518.852	518.867	518.879	518.809	519.745	520.531
0.1333	518.867	518.928	518.852	518.873	518.886	518.809	519.745	521.304
0.1416	518.873	518.928	518.852	518.879	518.886	518.809	519.858	520.322
0.1500	518.873	518.928	518.852	518.879	518.886	518.809	519.733	520.252
0.1583	518.880	518.928	518.852	518.886	518.886	518.815	519.733	520.619
0.1666	518.880	518.934	518.858	518.892	518.892	518.815	519.745	521.057
0.1750	518.886	518.934	518.852	518.886	518.892	518.815	519.971	520.961
0.1833	518.886	518.941	518.852	518.892	518.898	518.809	520.110	521.354
0.1916	518.892	518.947	518.858	518.898	518.904	518.815	520.235	521.272
0.2000	518.899	518.953	518.858	518.905	518.911	518.815	520.550	521.601
0.2083	518.905	518.953	518.858	518.911	518.911	518.815	520.613	522.159
0.2166	518.911	518.960	518.858	518.911	518.917	518.815	520.789	522.825
0.2250	518.918	518.966	518.858	518.917	518.923	518.815	520.952	522.647
0.2333	518.924	518.972	518.858	518.930	518.930	518.815	521.009	522.394
0.2416	518.930	518.972	518.858	518.930	518.930	518.821	521.254	523.180

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
0.2500	518.937	518.979	518.858	518.936	518.942	518.821	521.437	523.211
0.2583	518.949	518.985	518.858	518.943	518.948	518.821	521.688	523.161
0.2666	518.956	518.991	518.858	518.949	518.955	518.828	521.940	523.414
0.2750	518.968	519.004	518.858	518.962	518.961	518.828	522.110	523.503
0.2833	518.981	519.010	518.865	518.968	518.973	518.828	522.386	523.655
0.2916	518.994	519.017	518.858	518.974	518.980	518.834	522.701	523.668
0.3000	519.006	519.029	518.865	518.981	518.986	518.834	522.846	523.687
0.3083	519.019	519.036	518.865	518.993	518.992	518.834	522.946	523.719
0.3166	519.032	519.042	518.865	519.000	518.999	518.834	523.110	523.763
0.3250	519.044	519.048	518.865	519.006	519.005	518.840	523.211	523.979
0.3333	519.057	519.048	518.865	519.012	519.011	518.840	523.274	524.055
0.3500	519.076	519.061	518.865	519.025	519.017	518.840	523.393	524.118
0.3666	519.101	519.061	518.865	519.038	519.024	518.847	523.538	524.194
0.3833	519.120	519.074	518.871	519.050	519.030	518.847	523.683	524.188
0.4000	519.145	519.080	518.871	519.056	519.036	518.853	523.859	524.194
0.4166	519.158	519.086	518.871	519.063	519.042	518.853	523.966	524.194
0.4333	519.177	519.086	518.871	519.075	519.049	518.859	524.086	524.188
0.4500	519.196	519.093	518.871	519.082	519.055	518.859	524.161	524.182
0.4666	519.215	519.099	518.871	519.088	519.061	518.859	524.243	524.169
0.4833	519.228	519.105	518.877	519.094	519.061	518.859	524.319	524.137
0.5000	519.240	519.105	518.877	519.101	519.068	518.865	524.331	524.124
0.5166	519.253	519.112	518.877	519.101	519.068	518.865	524.350	524.124
0.5333	519.259	519.112	518.877	519.107	519.074	518.865	524.356	524.118
0.5500	519.272	519.112	518.877	519.113	519.074	518.865	524.375	524.118
0.5666	519.284	519.118	518.883	519.113	519.074	518.865	524.444	524.112
0.5833	519.291	519.118	518.877	519.120	519.080	518.865	524.545	524.105
0.6000	519.297	519.118	518.877	519.120	519.080	518.872	524.602	524.093
0.6166	519.303	519.118	518.877	519.120	519.086	518.865	524.583	524.086
0.6333	519.310	519.124	518.883	519.126	519.080	518.865	524.551	524.074
0.6500	519.316	519.124	518.883	519.126	519.086	518.872	524.514	524.061
0.6666	519.316	519.124	518.883	519.126	519.086	518.872	524.526	524.042
0.6833	519.322	519.124	518.883	519.132	519.086	518.872	524.589	524.029
0.7000	519.329	519.124	518.883	519.132	519.086	518.872	524.633	524.010
0.7166	519.335	519.124	518.883	519.132	519.086	518.872	524.665	523.998
0.7333	519.335	519.130	518.883	519.132	519.093	518.872	524.652	523.985
0.7500	519.341	519.124	518.883	519.132	519.093	518.872	524.608	523.979
0.7666	519.341	519.130	518.883	519.132	519.093	518.872	524.589	523.966
0.7833	519.341	519.130	518.883	519.139	519.093	518.872	524.596	523.960
0.8000	519.348	519.130	518.883	519.139	519.093	518.872	524.633	523.953
0.8166	519.348	519.130	518.883	519.139	519.093	518.872	524.696	523.941
0.8333	519.354	519.130	518.883	519.139	519.099	518.872	524.759	523.934
0.8500	519.354	519.137	518.883	519.139	519.099	518.878	524.784	523.934
0.8666	519.354	519.137	518.883	519.145	519.099	518.878	524.765	523.934
0.8833	519.360	519.137	518.883	519.139	519.099	518.878	524.721	523.934
0.9000	519.360	519.137	518.883	519.139	519.099	518.878	524.677	523.934
0.9166	519.360	519.137	518.890	519.145	519.099	518.878	524.658	523.934
0.9333	519.360	519.137	518.883	519.145	519.099	518.878	524.728	523.934
0.9500	519.360	519.137	518.890	519.145	519.099	518.878	524.810	523.928
0.9666	519.367	519.143	518.890	519.145	519.099	518.878	524.841	523.934
0.9833	519.367	519.143	518.890	519.145	519.105	518.878	524.841	523.934
1.0000	519.367	519.137	518.890	519.145	519.099	518.878	524.791	523.928

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1.2000	519.379	519.149	518.890	519.158	519.112	518.884	524.891	523.909
1.4000	519.398	519.156	518.896	519.164	519.118	518.884	524.986	523.928
1.6000	519.405	519.162	518.896	519.170	519.118	518.884	524.980	523.928
1.8000	519.411	519.162	518.896	519.177	519.124	518.891	525.036	523.922
2.0000	519.417	519.162	518.896	519.177	519.130	518.891	525.080	523.922
2.2000	519.424	519.168	518.896	519.183	519.130	518.891	525.061	523.903
2.4000	519.424	519.168	518.896	519.183	519.130	518.897	525.093	523.909
2.6000	519.424	519.168	518.896	519.183	519.130	518.897	525.049	523.922
2.8000	519.430	519.175	518.902	519.183	519.137	518.897	525.131	523.941
3.0000	519.430	519.175	518.902	519.189	519.137	518.897	525.074	523.953
3.2000	519.430	519.181	518.902	519.189	519.137	518.897	525.137	523.922
3.4000	519.430	519.181	518.902	519.189	519.143	518.897	525.112	523.941
3.6000	519.436	519.181	518.902	519.196	519.143	518.903	525.194	523.960
3.8000	519.442	519.187	518.902	519.196	519.143	518.903	525.168	523.947
4.0000	519.442	519.187	518.909	519.202	519.149	518.903	525.162	523.922
4.2000	519.442	519.187	518.909	519.202	519.149	518.903	525.156	523.922
4.4000	519.442	519.187	518.909	519.202	519.149	518.910	525.150	523.928
4.6000	519.442	519.187	518.909	519.202	519.149	518.910	525.131	523.922
4.8000	519.449	519.194	518.909	519.202	519.155	518.910	525.181	523.922
5.0000	519.442	519.187	518.909	519.202	519.149	518.910	525.168	523.915
5.2000	519.449	519.194	518.915	519.208	519.155	518.910	525.168	523.903
5.4000	519.449	519.194	518.909	519.208	519.155	518.910	525.150	523.922
5.6000	519.455	519.200	518.909	519.208	519.162	518.916	525.168	523.883
5.8000	519.449	519.194	518.909	519.208	519.155	518.916	525.055	523.852
6.0000	519.449	519.194	518.915	519.208	519.155	518.916	525.049	523.820
6.2000	519.449	519.194	518.915	519.208	519.155	518.916	524.992	523.788
6.4000	519.449	519.200	518.915	519.208	519.162	518.916	525.049	523.801
6.6000	519.449	519.200	518.909	519.208	519.162	518.916	525.049	523.795
6.8000	519.455	519.200	518.909	519.215	519.162	518.916	525.099	523.820
7.0000	519.455	519.200	518.915	519.215	519.162	518.916	525.124	523.826
7.2000	519.455	519.200	518.915	519.215	519.162	518.916	525.118	523.852
7.4000	519.461	519.206	518.921	519.221	519.168	518.916	525.131	523.833
7.6000	519.461	519.206	518.921	519.221	519.168	518.922	525.124	523.845
7.8000	519.461	519.206	518.921	519.221	519.168	518.922	525.137	523.858
8.0000	519.468	519.213	518.921	519.221	519.168	518.922	525.181	523.871
8.2000	519.474	519.213	518.921	519.227	519.174	518.922	525.276	523.877
8.4000	519.480	519.213	518.927	519.227	519.174	518.922	525.263	523.890
8.6000	519.480	519.219	518.921	519.227	519.174	518.922	525.294	523.903
8.8000	519.480	519.219	518.921	519.233	519.181	518.928	525.244	523.915
9.0000	519.480	519.219	518.921	519.233	519.181	518.928	525.301	523.915
9.2000	519.480	519.219	518.921	519.227	519.174	518.928	525.213	523.909
9.4000	519.480	519.219	518.921	519.233	519.181	518.928	525.269	523.890
9.6000	519.480	519.219	518.921	519.233	519.181	518.928	525.238	523.883
9.8000	519.480	519.219	518.921	519.233	519.181	518.928	525.244	523.903
10.0000	519.480	519.219	518.921	519.233	519.181	518.922	525.250	523.903
12.0000	519.480	519.219	518.921	519.240	519.181	518.928	525.200	523.858
14.0000	519.493	519.225	518.921	519.252	519.193	518.941	525.276	523.903
16.0000	519.506	519.238	518.927	519.265	519.206	518.941	525.383	523.985
18.0000	519.518	519.244	518.934	519.271	519.212	518.941	525.383	523.998
20.0000	519.506	519.244	518.934	519.271	519.212	518.947	525.194	523.871
22.0000	519.518	519.251	518.940	519.278	519.218	518.960	525.257	523.934

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
24.0000	519.525	519.257	518.946	519.297	519.224	518.960	525.282	523.941
26.0000	519.525	519.263	518.946	519.309	519.224	518.966	525.313	523.966
28.0000	519.531	519.270	518.953	519.316	519.231	518.966	525.301	523.953
30.0000	519.537	519.276	518.953	519.322	519.237	518.973	525.326	523.985
32.0000	519.544	519.276	518.959	519.328	519.243	518.985	525.307	524.010
34.0000	519.550	519.282	518.959	519.335	519.250	518.985	525.345	524.017
36.0000	519.556	519.289	518.965	519.341	519.250	518.991	525.351	524.017
38.0000	519.563	519.289	518.971	519.341	519.256	518.991	525.364	524.010
40.0000	519.563	519.295	518.971	519.347	519.262	518.998	525.395	524.036
42.0000	519.569	519.301	518.971	519.354	519.262	518.998	525.427	524.055
44.0000	519.575	519.308	518.978	519.360	519.275	518.998	525.433	524.080
46.0000	519.594	519.320	518.990	519.366	519.281	518.998	525.452	524.099
48.0000	519.588	519.314	518.984	519.373	519.281	519.010	525.458	524.099
50.0000	519.588	519.320	518.984	519.373	519.281	519.017	525.439	524.099
52.0000	519.588	519.320	518.984	519.373	519.281	519.017	525.464	524.099
54.0000	519.594	519.320	518.984	519.373	519.281	519.017	525.471	524.118
56.0000	519.601	519.327	518.990	519.379	519.287	519.017	525.458	524.118
58.0000	519.601	519.327	518.996	519.385	519.294	519.023	525.496	524.150
60.0000	519.601	519.333	518.996	519.385	519.294	519.023	525.471	524.131
62.0000	519.607	519.333	518.996	519.392	519.294	519.029	525.477	524.150
64.0000	519.607	519.339	519.003	519.392	519.300	519.029	525.496	524.137
66.0000	519.613	519.339	519.003	519.392	519.300	519.036	525.496	524.143
68.0000	519.613	519.339	519.003	519.398	519.306	519.036	525.483	524.156
70.0000	519.620	519.346	519.003	519.398	519.306	519.036	525.483	524.156
72.0000	519.620	519.346	519.009	519.404	519.312	519.042	525.490	524.163
74.0000	519.626	519.352	519.009	519.404	519.312	519.042	525.490	524.169
76.0000	519.626	519.352	519.015	519.411	519.312	519.042	525.534	524.188
78.0000	519.626	519.352	519.015	519.411	519.319	519.048	525.483	524.182
80.0000	519.632	519.358	519.015	519.411	519.319	519.048	525.515	524.207
82.0000	519.632	519.358	519.009	519.411	519.319	519.048	525.515	524.201
84.0000	519.632	519.358	519.015	519.411	519.325	519.054	525.546	524.201
86.0000	519.638	519.364	519.022	519.417	519.325	519.054	525.527	524.207
88.0000	519.638	519.364	519.022	519.417	519.325	519.054	525.559	524.220
90.0000	519.638	519.364	519.022	519.423	519.331	519.054	525.559	524.207
92.0000	519.645	519.371	519.022	519.423	519.331	519.061	525.578	524.239
94.0000	519.645	519.371	519.028	519.429	519.337	519.061	525.534	524.226
96.0000	519.645	519.371	519.028	519.429	519.337	519.061	525.559	524.283
98.0000	519.657	519.383	519.028	519.436	519.344	519.067	525.742	524.334
100.000	519.664	519.383	519.034	519.442	519.350	519.067	525.710	524.327
110.000	519.670	519.390	519.040	519.448	519.356	519.080	525.805	524.378
120.000	519.689	519.402	519.047	519.455	519.369	519.086	525.855	524.461
130.000	519.702	519.415	519.053	519.467	519.375	519.099	525.899	524.492
140.000	519.708	519.421	519.059	519.480	519.388	519.105	525.893	524.530
150.000	519.714	519.428	519.066	519.486	519.394	519.111	525.899	524.575
160.000	519.721	519.440	519.078	519.499	519.406	519.124	525.981	524.606
170.000	519.733	519.447	519.078	519.505	519.413	519.130	526.082	524.651
180.000	519.740	519.453	519.091	519.512	519.419	519.136	526.044	524.683
190.000	519.746	519.466	519.097	519.524	519.425	519.143	526.126	524.708
200.000	519.759	519.472	519.110	519.518	519.432	519.143	526.107	524.746
210.000	519.752	519.472	519.110	519.531	519.432	519.155	526.119	524.759
220.000	519.752	519.472	519.103	519.531	519.438	519.155	526.138	524.778

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
230.000	519.759	519.472	519.122	519.543	519.438	519.155	526.189	524.822
240.000	519.765	519.485	519.122	519.543	519.450	519.168	526.252	524.860
250.000	519.771	519.491	519.135	519.537	519.450	519.162	526.056	524.828
260.000	519.771	519.491	519.141	519.562	519.457	519.174	526.264	524.905
270.000	519.778	519.491	519.122	519.550	519.457	519.174	526.302	524.974
280.000	519.778	519.497	519.135	519.556	519.463	519.180	526.252	524.974
290.000	519.771	519.497	519.110	519.543	519.463	519.174	526.302	524.981
300.000	519.778	519.497	519.128	519.556	519.463	519.180	526.308	525.006
310.000	519.784	519.504	519.128	519.556	519.469	519.187	526.352	525.044
320.000	519.790	519.510	519.141	519.569	519.476	519.193	526.422	525.088
330.000	519.784	519.504	519.141	519.569	519.469	519.193	526.403	525.133
340.000	519.790	519.510	519.141	519.575	519.476	519.193	526.428	525.184
350.000	519.797	519.516	519.153	519.581	519.482	519.199	526.441	525.184
360.000	519.790	519.516	519.153	519.575	519.482	519.199	526.466	525.196
370.000	519.797	519.516	519.147	519.575	519.482	519.199	526.529	525.247
380.000	519.809	519.529	519.160	519.581	519.488	519.199	526.598	525.304
390.000	519.790	519.516	519.153	519.575	519.482	519.199	526.466	525.253
400.000	519.790	519.523	519.160	519.581	519.488	519.206	526.434	525.279
410.000	519.790	519.523	519.160	519.581	519.482	519.206	526.478	525.298
420.000	519.790	519.523	519.160	519.581	519.488	519.212	526.485	525.323
430.000	519.790	519.516	519.153	519.581	519.482	519.206	526.466	525.329
440.000	519.790	519.523	519.160	519.581	519.488	519.212	526.504	525.368
450.000	519.790	519.523	519.166	519.588	519.488	519.212	526.548	525.412
460.000	519.797	519.523	519.166	496.375	519.488	519.212	513.509	525.475
470.000	519.797	519.529	519.166	496.381	519.488	519.212	513.521	525.507
480.000	519.803	519.535	519.172	496.394	519.494	519.218	513.534	525.602
490.000	519.803	519.535	519.172	519.682	519.494	519.218	513.534	525.577
500.000	519.797	519.529	519.172	519.562	519.494	519.218	513.590	525.602
510.000	519.797	519.529	519.166	519.562	519.494	496.333	526.819	525.653
520.000	519.803	519.535	519.172	519.562	515.586	496.345	526.819	525.716
530.000	519.803	519.535	519.179	519.562	515.781	496.358	526.850	525.742
540.000	519.803	519.535	519.179	519.562	515.900	519.250	526.901	525.748
550.000	519.803	519.535	519.179	519.562	519.519	519.231	526.838	525.767
560.000	519.803	519.535	515.124	519.562	519.513	519.231	526.894	525.824
570.000	519.803	519.535	515.143	519.562	519.513	519.231	526.945	525.850
580.000	516.775	519.535	519.336	519.562	519.513	519.231	526.919	525.862
590.000	516.782	519.535	519.292	519.562	519.513	519.231	526.926	525.881
600.000	516.782	519.535	519.273	519.569	519.513	519.231	526.957	525.951
610.000	519.834	514.271	519.273	519.569	519.519	519.231	527.096	526.053
620.000	519.828	514.277	519.266	519.569	519.519	519.237	527.171	526.097
630.000	519.847	519.567	519.266	519.581	519.526	519.237	527.518	526.364
640.000	519.860	519.580	519.279	519.581	519.538	519.237	527.594	526.433
650.000	519.853	519.573	519.266	519.588	519.532	519.237	527.638	526.484
660.000	519.853	519.573	519.266	519.588	519.538	519.243	527.694	526.535
670.000	519.860	519.580	519.273	519.594	519.545	519.243	527.739	526.617
680.000	519.872	519.592	519.285	519.600	519.551	519.250	527.814	526.662
690.000	519.872	519.592	519.285	519.594	519.551	519.250	527.846	526.719
700.000	519.879	519.599	519.285	519.600	519.551	519.250	527.884	526.763
710.000	519.872	519.592	519.285	519.600	519.551	519.256	527.890	526.808
720.000	519.872	519.599	519.285	519.600	519.551	519.256	527.965	526.858
730.000	519.866	519.586	519.279	519.600	519.551	519.256	528.066	526.941

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
740.000	519.866	519.586	519.279	519.600	519.551	519.256	528.098	526.985
750.000	519.885	519.605	519.292	519.607	519.563	519.262	528.148	527.068
760.000	519.866	519.592	519.279	519.607	519.557	519.262	528.117	527.131
770.000	519.872	519.592	519.279	519.613	519.557	519.262	528.224	527.182
780.000	519.879	519.599	519.285	519.613	519.557	519.262	528.306	527.233
790.000	519.872	519.599	519.285	519.613	519.557	519.262	528.325	527.290
800.000	519.879	519.605	519.285	519.619	519.563	519.269	528.400	527.366
810.000	519.879	519.605	519.292	519.619	519.563	519.269	528.470	527.430
820.000	519.898	519.617	519.304	519.619	519.576	519.275	528.564	527.512
830.000	519.885	519.611	519.298	519.625	519.570	519.275	528.602	527.569
840.000	519.885	519.605	519.292	519.619	519.570	519.275	528.608	527.595
850.000	519.885	519.605	519.292	519.619	519.570	519.275	528.602	527.652
860.000	519.885	519.605	519.292	519.625	519.570	519.275	528.665	527.696
870.000	519.885	519.605	519.292	519.619	519.570	519.275	528.734	527.779
880.000	519.885	519.611	519.298	519.625	519.576	519.281	528.804	527.861
890.000	519.891	519.617	519.298	519.632	519.576	519.281	528.873	527.918
900.000	519.891	519.617	519.304	519.632	519.576	519.281	528.930	527.988
910.000	519.891	519.617	519.304	519.632	519.576	519.281	528.917	528.026
920.000	519.891	519.617	519.304	519.632	519.576	519.281	528.987	528.090
930.000	519.898	519.617	519.304	519.632	519.582	519.287	529.031	528.160
940.000	519.891	519.617	519.304	519.632	519.576	519.287	529.087	528.223
950.000	519.891	519.617	519.304	519.632	519.582	519.287	529.157	528.287
960.000	519.898	519.624	519.310	519.638	519.582	519.287	529.239	528.375
970.000	519.898	519.624	519.304	519.632	519.582	519.287	529.308	528.426
980.000	519.898	519.624	519.310	519.638	519.582	519.294	529.321	528.496
990.000	519.898	519.624	519.310	519.638	519.588	519.294	529.365	528.572
1000.00	519.898	519.624	519.310	519.638	519.582	519.294	529.403	528.617
1010.00	519.904	519.630	519.317	519.638	519.588	519.294	529.504	528.693
1020.00	519.898	519.624	519.317	519.638	519.588	519.294	529.554	528.750
1030.00	519.904	519.624	519.317	519.638	519.588	519.294	529.642	528.864
1040.00	519.898	519.624	519.310	519.638	519.588	519.294	529.674	528.940
1050.00	519.904	519.624	519.317	519.644	519.588	519.294	529.768	529.010
1060.00	519.904	519.630	519.317	519.644	519.588	519.300	529.781	529.061
1070.00	519.904	519.630	519.317	519.644	519.588	519.300	529.857	529.106
1080.00	519.904	519.630	519.317	519.644	519.588	519.294	529.901	529.188
1090.00	519.904	519.630	519.317	519.644	519.588	519.300	529.939	529.252
1100.00	519.904	519.630	519.317	519.644	519.595	519.294	530.002	529.340
1110.00	519.917	519.636	519.323	519.657	519.601	519.300	530.210	529.506
1120.00	519.910	519.636	519.317	519.651	519.595	519.300	530.273	529.537
1130.00	519.898	519.617	519.310	519.644	519.582	519.287	530.323	529.645
1140.00	519.898	519.624	519.304	519.644	519.582	519.287	530.355	529.696
1150.00	519.898	519.617	519.304	519.638	519.582	519.281	530.380	529.715
1160.00	519.898	519.617	519.298	519.638	519.582	519.281	530.449	529.772
1170.00	519.898	519.624	519.304	519.644	519.582	519.287	530.475	529.855
1180.00	519.898	519.617	519.298	519.638	519.582	519.287	530.544	529.918
1190.00	519.904	519.624	519.304	519.644	519.588	519.287	530.582	529.988
1200.00	519.891	514.271	519.298	519.638	519.582	519.287	530.670	530.064
1210.00	519.904	514.283	519.304	519.644	519.588	519.287	530.777	530.204
1220.00	516.775	519.617	519.298	519.644	519.588	519.287	530.822	530.268
1230.00	516.782	519.617	519.304	519.644	519.588	519.294	530.866	530.325
1240.00	516.782	519.624	519.310	519.651	519.595	519.300	530.960	530.401

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1250.00	519.910	519.617	519.298	519.644	519.588	519.281	531.030	530.458
1260.00	519.904	519.617	519.298	519.644	519.582	519.287	513.509	530.445
1270.00	519.904	519.617	519.298	519.644	519.588	519.287	513.515	530.592
1280.00	519.910	519.624	519.304	519.651	519.595	519.300	531.250	530.655
1290.00	519.910	519.624	519.304	512.740	519.595	519.294	531.332	530.757
1300.00	519.904	519.617	519.298	496.545	519.588	519.287	531.427	530.839
1310.00	519.904	519.617	519.298	496.582	519.588	519.281	531.490	530.922
1320.00	519.904	519.617	519.298	519.663	519.588	519.281	531.534	530.985
1330.00	519.904	519.617	519.298	519.663	515.398	519.281	531.591	531.036
1340.00	519.904	519.617	519.298	519.663	515.405	519.281	531.604	531.093
1350.00	519.904	519.624	519.304	519.670	515.405	519.287	531.629	531.138
1360.00	519.917	519.630	519.310	519.663	519.607	519.294	531.692	531.170
1370.00	519.898	519.611	519.292	519.663	519.588	496.327	531.730	531.252
1380.00	519.898	519.611	519.292	519.663	519.595	496.339	531.768	531.309
1390.00	519.910	519.624	519.304	519.670	519.601	519.275	531.888	531.436
1400.00	519.904	519.617	519.298	519.663	519.601	519.275	531.894	531.430
1410.00	519.904	519.617	515.156	519.663	519.595	519.262	531.926	531.436
1420.00	519.891	519.611	515.162	519.657	519.588	519.262	531.951	531.494
1430.00	519.898	519.617	519.241	519.663	519.595	519.281	531.938	531.538
1440.00	519.898	519.617	519.241	519.663	519.595	519.269	532.064	531.640
1450.00	519.904	519.624	519.241	519.670	519.601	519.275	532.096	531.703
1460.00	519.904	519.624	519.241	519.663	519.601	519.281	532.153	531.761
1470.00	519.904	519.630	519.248	519.670	519.607	519.287	532.172	531.856
1480.00	519.904	519.624	519.241	519.670	519.601	519.281	532.241	531.900
1490.00	519.904	519.624	519.241	519.670	519.601	519.281	532.285	531.970
1500.00	519.904	519.617	519.235	519.670	519.601	519.281	532.355	532.034
1510.00	519.904	519.624	519.235	519.670	519.601	519.281	532.443	532.123
1520.00	519.904	519.617	519.235	519.670	519.601	519.275	532.481	532.167
1530.00	519.910	519.624	519.241	519.670	519.601	519.281	532.550	532.218
1540.00	519.923	519.630	519.241	519.682	519.614	519.287	532.967	532.676
1550.00	519.923	519.636	519.241	519.682	519.614	519.287	532.992	532.688
1560.00	519.929	519.636	519.248	519.682	519.614	519.287	533.011	532.682
1570.00	519.923	519.636	519.241	519.682	519.614	519.300	533.093	532.784
1580.00	519.929	519.643	519.248	519.689	519.620	519.287	533.150	532.834
1590.00	519.923	519.636	519.241	519.682	519.614	519.294	533.232	532.943
1600.00	519.929	519.636	519.248	519.689	519.614	519.287	533.245	533.025
1610.00	519.923	519.636	519.248	519.682	519.614	519.287	533.314	533.019
1620.00	519.923	519.636	519.241	519.682	519.614	519.281	533.339	533.076
1630.00	519.923	519.636	519.241	519.689	519.614	519.294	533.396	533.140
1640.00	519.923	519.636	519.241	519.682	519.614	519.281	533.472	533.229
1650.00	519.929	519.636	519.248	519.682	519.620	519.281	533.560	533.292
1660.00	519.936	519.643	519.254	519.682	519.626	519.294	533.598	533.349
1670.00	519.942	519.649	519.260	519.689	519.626	519.294	533.573	533.381
1680.00	519.929	519.636	519.241	519.676	519.620	519.281	533.598	533.413
1690.00	519.936	519.643	519.248	519.689	519.626	519.294	533.674	533.464
1700.00	519.923	519.636	519.216	519.663	519.614	519.275	533.750	533.527
1710.00	519.929	519.636	519.248	519.689	519.620	519.294	533.844	533.635
1720.00	519.936	519.643	519.254	519.695	519.626	519.306	533.907	533.718
1730.00	519.936	519.643	519.241	519.689	519.626	519.300	534.008	533.820
1740.00	519.936	519.649	519.260	519.701	519.626	519.300	534.021	533.871
1750.00	519.929	519.636	519.235	519.676	519.620	519.294	534.084	533.953

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1760.00	519.929	519.643	519.266	519.701	519.626	519.300	534.122	533.966
1770.00	519.929	519.643	519.254	519.695	519.626	519.300	534.122	533.972
1780.00	519.929	519.643	519.254	519.695	519.626	519.300	534.204	534.112
1790.00	519.929	519.636	519.248	519.689	519.620	519.294	534.280	534.144
1800.00	519.936	519.643	519.254	519.695	519.626	519.300	534.330	534.252
1810.00	519.929	519.643	519.248	519.689	519.620	519.294	534.394	534.341
1820.00	519.929	519.643	519.248	519.695	519.626	519.300	534.438	534.411
1830.00	519.929	519.643	519.248	519.689	519.626	519.287	534.476	534.436
1840.00	519.923	519.636	519.248	519.689	519.620	519.287	534.495	534.443
1850.00	519.923	519.636	519.248	519.689	519.620	519.294	534.532	534.525
1860.00	519.923	519.636	519.241	519.689	519.614	519.287	534.646	534.614
1870.00	519.923	519.636	519.241	519.689	519.620	519.287	534.697	534.665
1880.00	519.923	519.636	519.241	519.689	519.620	519.287	534.785	534.792
1890.00	519.923	519.630	519.241	519.682	519.614	519.287	534.785	534.862
1900.00	519.923	519.636	519.241	519.689	519.614	519.281	534.791	534.824
1910.00	519.923	519.636	519.241	519.689	519.620	519.287	534.829	534.869
1920.00	519.923	519.636	519.241	496.821	519.614	519.294	534.911	534.971
1930.00	519.917	519.630	519.235	496.765	519.614	519.294	513.502	535.047
1940.00	519.917	519.630	519.235	496.727	519.614	519.287	513.496	535.066
1950.00	519.910	519.624	519.235	519.644	519.607	519.294	513.490	535.072
1960.00	519.917	519.630	519.235	519.651	519.607	519.287	513.477	535.193
1970.00	516.769	519.630	519.235	519.651	519.607	496.333	535.391	535.193
1980.00	516.763	519.617	519.235	519.651	519.601	496.320	535.429	535.263
1990.00	516.763	519.624	519.235	519.651	519.607	496.320	535.505	535.320
2000.00	519.936	519.630	519.235	519.651	519.607	519.262	535.556	535.409
2010.00	519.936	519.630	515.137	519.651	519.607	519.281	535.612	535.479
2020.00	519.936	519.624	515.143	519.651	515.398	519.281	535.688	535.568
2030.00	519.929	519.624	519.266	519.651	515.398	519.281	535.644	535.613
2040.00	519.929	519.624	519.266	519.651	515.398	519.281	535.688	535.600
2050.00	519.936	514.271	519.273	519.657	519.620	519.287	535.714	535.664
2060.00	519.929	514.271	519.273	519.651	519.620	519.281	535.751	535.676
2070.00	519.936	519.624	519.273	519.657	519.620	519.287	535.783	535.740
2080.00	519.936	519.643	519.273	519.657	519.620	519.281	535.834	535.842
2090.00	519.936	519.643	519.266	519.657	519.620	519.281	535.960	535.950
2100.00	519.936	519.643	519.273	519.657	519.620	519.287	535.941	535.944
2110.00	519.929	519.643	519.273	519.657	519.620	519.294	535.928	535.937
2120.00	519.936	519.643	519.273	519.657	519.620	519.287	535.935	536.020
2130.00	519.936	519.643	519.273	519.657	519.620	519.294	535.979	536.007
2140.00	519.936	519.643	519.266	519.657	519.620	519.294	536.055	536.153
2150.00	519.936	519.643	519.273	519.657	519.620	519.294	536.143	536.192
2160.00	519.936	519.649	519.273	519.663	519.626	519.294	536.232	536.332
2170.00	519.942	519.649	519.279	519.663	519.626	519.294	536.250	536.383
2180.00	519.942	519.649	519.279	519.663	519.626	519.294	536.263	536.383
2190.00	519.936	519.649	519.279	519.657	519.626	519.294	536.320	536.446
2200.00	519.936	519.649	519.279	519.657	519.626	519.300	536.314	536.516
2210.00	519.936	519.649	519.273	519.663	519.626	519.294	536.446	536.599
2220.00	519.936	519.649	519.273	519.663	519.626	519.294	536.453	536.624
2230.00	519.942	519.649	519.279	519.663	519.626	519.294	536.522	536.688
2240.00	519.936	519.649	519.279	519.663	519.626	519.294	536.522	536.732
2250.00	519.936	519.649	519.279	519.663	519.626	519.300	536.579	536.790
2260.00	519.936	519.649	519.279	519.663	519.626	519.300	536.617	536.841

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
2270.00	519.936	519.649	519.279	519.663	519.626	519.300	536.585	536.853
2280.00	519.936	519.649	519.273	519.657	519.626	519.294	536.680	536.885
2290.00	519.936	519.649	519.273	519.663	519.626	519.287	536.731	536.987
2300.00	519.942	519.649	519.279	519.663	519.626	519.287	536.851	537.070
2310.00	519.936	519.649	519.279	519.663	519.626	519.287	536.889	537.222
2320.00	519.942	519.649	519.279	519.663	519.626	519.287	536.882	537.184
2330.00	519.936	519.649	519.279	519.657	519.626	519.287	536.939	537.248
2340.00	519.936	519.649	519.279	519.657	519.626	519.287	536.977	537.318
2350.00	519.942	519.649	519.279	519.663	519.626	519.294	537.021	537.381
2360.00	519.936	519.649	519.279	519.663	519.626	519.287	537.047	537.432
2370.00	519.942	519.649	519.279	519.663	519.626	519.287	537.129	537.490
2380.00	519.936	519.649	519.273	519.663	519.626	519.281	537.186	537.572
2390.00	519.936	519.649	519.273	519.657	519.626	519.287	537.192	537.572
2400.00	519.936	519.649	519.279	519.657	519.626	519.294	537.198	537.598
2410.00	519.936	519.649	519.279	519.657	519.626	519.281	537.230	537.636
2420.00	519.778	519.573	519.266	519.569	519.551	519.262	531.976	532.568
2430.00	519.746	519.554	519.254	519.543	519.526	519.250	531.799	532.434
2440.00	519.708	519.529	519.248	519.518	519.501	519.243	531.162	531.888
2450.00	519.727	519.535	519.241	519.524	519.507	519.237	532.260	532.962
2460.00	519.670	519.504	519.235	519.486	519.476	519.225	531.118	531.938
2470.00	519.676	519.504	519.229	519.493	519.476	519.218	532.582	533.521
2480.00	519.676	519.497	519.223	519.486	519.469	519.212	533.181	534.093
2490.00	519.683	519.504	519.223	519.493	519.476	519.218	533.977	534.862
2500.00	519.683	519.497	519.223	519.486	519.476	519.212	534.412	535.263
2510.00	519.689	519.497	519.216	519.493	519.476	519.212	534.659	535.498
2520.00	519.695	519.497	519.216	519.493	519.476	519.206	534.836	535.664
2530.00	519.695	519.504	519.216	519.493	519.476	519.206	535.025	535.816
2540.00	519.740	519.523	519.216	519.518	519.494	519.218	536.693	537.470
2550.00	519.803	519.554	519.223	519.562	519.532	519.231	538.020	538.756
2560.00	519.834	519.573	519.229	519.581	519.551	519.243	538.469	539.221
2570.00	519.872	519.592	519.235	519.607	519.570	519.243	539.348	540.074
2580.00	519.879	519.599	519.235	519.613	519.582	519.256	539.462	540.144
2590.00	519.885	519.605	519.241	519.619	519.588	519.262	539.392	540.118
2600.00	519.891	519.611	519.248	519.625	519.588	519.262	539.424	540.201
2610.00	519.891	519.611	519.248	519.625	519.595	519.269	539.405	540.176
2620.00	519.898	519.617	519.248	519.632	519.595	519.269	539.354	540.176
2630.00	519.898	519.617	519.248	519.632	519.595	519.269	539.303	540.182
2640.00	519.910	519.630	519.260	519.632	519.607	519.275	539.297	540.259
2650.00	519.910	519.624	515.106	519.644	519.607	519.275	513.483	540.730
2660.00	519.904	519.624	515.093	519.638	519.607	519.275	513.471	540.297
2670.00	519.910	519.630	515.081	519.638	519.607	519.275	513.458	540.469
2680.00	519.910	519.630	515.074	519.644	519.607	519.275	513.452	540.577
2690.00	516.763	519.630	519.260	519.644	519.614	519.281	540.164	540.679
2700.00	516.756	519.630	519.273	519.644	519.614	519.281	540.113	540.660
2710.00	516.750	514.258	519.273	519.644	519.607	519.275	540.081	540.723
2720.00	519.904	514.258	519.254	519.638	519.601	519.275	540.107	540.736
2730.00	519.923	514.258	519.260	519.638	519.607	519.269	540.208	540.870
2740.00	519.923	514.252	519.266	519.644	515.411	519.281	540.233	540.985
2750.00	519.923	519.617	519.266	519.644	515.398	519.281	540.322	541.118
2760.00	519.923	519.617	519.266	519.644	515.392	519.281	540.410	541.246
2770.00	519.929	519.624	519.273	519.651	519.588	519.281	540.372	541.271

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
2780.00	519.936	519.630	519.273	496.381	519.607	519.281	540.410	541.335
2790.00	519.923	519.624	519.266	496.369	519.601	519.281	540.391	541.303
2800.00	519.923	519.624	519.266	496.362	519.607	519.281	540.372	541.354
2810.00	519.923	519.624	519.266	519.619	519.607	519.281	540.404	541.411
2820.00	519.929	519.624	519.266	519.644	519.607	519.300	540.404	541.469
2830.00	519.929	519.624	519.266	519.638	519.607	496.327	540.423	541.500
2840.00	519.929	519.630	519.273	519.644	519.607	496.339	540.442	541.526
2850.00	519.929	519.630	519.273	519.644	519.614	496.345	540.486	541.622
2860.00	519.929	519.630	519.273	519.651	519.614	519.319	540.499	541.679
2870.00	519.929	519.624	519.273	519.644	519.607	519.313	540.594	541.806
2880.00	519.917	519.624	519.273	519.638	519.607	519.319	539.974	541.207
2890.00	519.904	519.617	519.273	519.638	519.595	519.306	539.828	541.048
2900.00	519.904	519.611	519.266	519.632	519.595	519.306	539.885	541.169
2910.00	519.860	519.592	519.266	519.613	519.576	519.300	538.033	539.297
2920.00	519.778	519.554	519.260	519.562	519.532	519.287	535.265	536.497
2930.00	519.803	519.561	519.254	519.569	519.538	519.281	537.211	538.654
2940.00	519.809	519.561	519.260	519.569	519.545	519.269	537.849	539.335
2950.00	519.816	519.561	519.260	519.575	519.545	519.281	538.140	539.698
2960.00	519.816	519.561	519.260	519.575	519.545	519.275	538.266	539.838
2970.00	519.816	519.561	519.248	519.569	519.545	519.275	538.336	539.927
2980.00	519.816	519.561	519.254	519.569	519.545	519.269	538.361	540.017
2990.00	519.809	519.561	519.260	519.569	519.538	519.262	538.393	540.061
3000.00	519.809	519.554	519.254	519.575	519.538	519.269	538.437	540.125
3010.00	519.816	519.561	519.266	519.575	519.545	519.269	538.488	540.182
3020.00	519.822	519.567	519.266	519.569	519.545	519.262	538.538	540.265
3030.00	519.809	519.561	519.260	519.575	519.538	519.262	538.602	540.348
3040.00	519.816	519.561	519.273	519.575	519.545	519.269	538.627	540.392
3050.00	519.809	519.554	519.260	519.569	519.545	519.269	538.665	540.494
3060.00	519.809	519.554	519.254	519.569	519.538	519.269	538.715	540.539
3070.00	519.809	519.554	519.266	519.569	519.545	519.269	538.753	540.571
3080.00	519.816	519.561	519.266	519.562	519.538	519.262	538.798	540.653
3090.00	519.816	519.561	519.266	519.562	519.538	519.275	538.835	540.736
3100.00	519.879	519.586	519.273	519.607	519.570	519.281	541.771	543.699
3110.00	519.904	519.605	519.279	519.632	519.595	519.294	541.328	543.138
3120.00	519.917	519.611	519.266	519.632	519.601	519.300	541.777	543.558
3130.00	519.917	519.617	519.285	519.644	519.601	519.300	541.340	543.157
3140.00	519.929	519.624	519.279	519.644	519.607	519.300	542.081	543.896
3150.00	519.910	519.617	519.279	519.638	519.601	519.306	541.081	542.959
3160.00	519.942	519.630	519.279	519.657	519.620	519.306	542.657	544.648
3170.00	519.904	519.617	519.285	519.644	519.601	519.306	540.834	542.724
3180.00	519.942	519.630	519.285	519.663	519.620	519.313	542.492	544.521
3190.00	519.917	519.624	519.279	519.644	519.607	519.313	541.663	543.718
3200.00	519.917	519.624	519.285	519.644	519.607	519.306	541.492	543.527
3210.00	519.936	519.636	519.285	519.657	519.620	519.313	542.416	544.553
3220.00	519.923	519.624	519.285	519.651	519.614	519.313	541.720	543.896
3230.00	519.923	519.630	519.285	519.651	519.614	519.313	541.752	543.935
3240.00	519.936	519.636	519.285	519.663	519.620	519.313	542.574	544.782
3250.00	519.917	519.624	519.292	519.651	519.614	519.313	541.530	543.718
3260.00	519.929	519.630	519.285	519.657	519.620	519.313	542.277	544.508
3270.00	519.936	519.630	519.285	519.657	519.620	519.313	542.397	544.693
3280.00	519.917	519.624	519.285	519.651	519.614	519.319	541.454	543.686

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
3290.00	519.942	519.636	519.285	519.663	519.626	519.319	542.986	545.331
3300.00	519.910	519.624	519.285	519.644	519.607	519.313	541.473	543.826
3310.00	519.929	519.636	519.292	519.657	519.620	519.319	542.252	544.636
3320.00	519.936	519.636	519.285	519.663	519.620	519.319	542.714	545.159
3330.00	519.917	519.624	519.292	519.651	519.614	519.313	541.492	543.903
3340.00	519.955	519.649	519.298	519.670	519.632	519.319	543.119	545.605
3350.00	519.917	519.624	519.285	496.865	519.614	519.313	541.714	544.132
3360.00	519.929	519.636	519.285	496.545	519.620	519.319	513.483	544.770
3370.00	519.923	519.630	519.285	496.438	519.614	519.313	513.408	545.139
3380.00	519.904	519.617	519.285	496.343	519.601	519.300	513.364	543.711
3390.00	516.756	519.636	519.279	519.644	519.620	519.313	513.327	545.854
3400.00	516.750	519.617	519.279	519.632	519.601	496.333	542.929	544.406
3410.00	516.750	519.624	519.279	519.644	519.607	496.320	543.568	545.146
3420.00	519.891	519.624	519.273	519.638	519.607	519.287	543.834	545.516
3430.00	519.879	519.617	515.137	519.632	519.601	519.294	542.454	544.100
3440.00	519.898	519.624	515.037	519.638	515.392	519.294	543.581	545.267
3450.00	519.860	519.605	515.005	519.619	515.386	519.281	541.847	543.571
3460.00	519.891	519.617	519.229	519.632	519.614	519.294	543.651	545.522
3470.00	519.847	514.239	519.235	519.607	519.595	519.287	541.511	543.272
3480.00	519.885	514.258	519.235	519.632	519.614	519.294	543.594	545.458
3490.00	519.866	514.252	519.235	519.619	519.601	519.287	542.796	544.712
3500.00	519.879	519.561	519.235	519.625	519.607	519.294	543.195	545.146
3510.00	519.898	519.617	519.241	519.632	519.620	519.287	543.955	546.045
3520.00	519.866	519.605	519.229	519.619	519.601	519.287	542.809	544.808
3530.00	519.879	519.611	519.229	519.625	519.614	519.294	543.404	545.541
3540.00	519.879	519.605	519.229	519.625	519.607	519.287	543.511	545.656
3550.00	519.860	519.599	519.229	519.613	519.601	519.287	542.758	544.903
3560.00	519.879	519.605	519.229	519.625	519.607	519.281	543.986	546.319
3570.00	519.847	519.592	519.223	519.607	519.588	519.275	542.486	544.725
3580.00	519.879	519.605	519.229	519.625	519.607	519.287	543.682	545.968
3590.00	519.872	519.605	519.229	519.619	519.601	519.287	543.473	545.847
3600.00	519.860	519.599	519.229	519.619	519.601	519.287	542.891	545.197
3610.00	519.885	519.611	519.229	519.625	519.607	519.281	544.094	546.523
3620.00	519.847	519.592	519.223	519.607	519.595	519.281	542.315	544.617
3630.00	519.879	519.605	519.223	519.625	519.607	519.281	544.024	546.485
3640.00	519.853	519.592	519.223	519.607	519.595	519.281	542.859	545.299
3650.00	519.860	519.599	519.223	519.613	519.601	519.281	543.252	545.739
3660.00	519.866	519.599	519.223	519.619	519.601	519.281	543.910	546.498
3670.00	519.847	519.592	519.223	519.607	519.595	519.281	542.796	545.350
3680.00	519.872	519.605	519.229	519.619	519.607	519.287	543.948	546.625
3690.00	519.860	519.599	519.223	519.613	519.601	519.275	543.442	546.147
3700.00	519.809	519.573	519.216	519.581	519.570	519.269	541.068	543.508
3710.00	519.816	519.573	519.216	519.581	519.576	519.269	542.100	544.731
3720.00	519.872	519.599	519.223	519.619	519.601	519.275	544.480	547.257
3730.00	519.803	519.567	519.216	519.575	519.570	519.262	540.980	543.527
3740.00	519.860	519.592	519.216	519.613	519.595	519.269	544.208	547.002
3750.00	519.853	519.586	519.216	519.607	519.588	519.269	543.689	546.549
3760.00	519.860	519.592	519.223	519.607	519.595	519.269	543.644	546.517
3770.00	519.847	519.586	519.216	519.607	519.588	519.269	543.613	546.517
3780.00	519.847	519.586	519.210	519.607	519.588	519.269	543.746	546.689
3790.00	519.847	519.586	519.210	519.607	519.588	519.269	543.758	546.721

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
3800.00	519.853	519.586	519.216	519.607	519.588	519.262	543.841	546.855
3810.00	519.847	519.586	519.210	519.600	519.588	519.269	543.898	546.944
3820.00	519.847	519.586	519.210	519.607	519.588	519.269	543.803	546.906
3830.00	519.853	519.586	519.216	519.607	519.588	519.275	543.910	547.002
3840.00	519.847	519.586	519.210	519.600	519.588	519.256	543.936	547.065
3850.00	519.847	519.586	519.210	519.607	519.588	519.262	544.005	547.174
3860.00	519.847	519.586	519.210	519.600	519.588	519.262	543.999	547.174
3870.00	519.847	519.586	519.210	519.600	519.588	519.269	543.980	547.187
3880.00	519.847	519.586	519.210	519.607	519.588	519.269	544.037	547.295
3890.00	519.847	519.586	519.210	519.607	519.588	519.275	544.208	547.499
3900.00	519.847	519.586	519.210	519.607	519.588	519.269	544.278	547.627
3910.00	519.847	519.586	519.210	519.607	519.588	519.262	544.404	547.793
3920.00	519.853	519.586	519.210	519.607	519.588	519.269	544.499	547.914
3930.00	519.853	519.586	519.210	519.607	519.595	519.275	544.474	547.888
3940.00	519.853	519.586	519.210	519.607	519.588	519.275	544.442	547.869
3950.00	519.847	519.586	519.210	519.607	519.588	519.262	544.430	547.850
3960.00	519.847	519.586	519.210	519.607	519.588	519.269	544.449	547.927
3970.00	519.847	519.580	519.210	519.600	519.588	519.269	544.499	548.067
3980.00	519.847	519.586	519.210	519.607	519.588	519.269	544.544	548.118
3990.00	519.853	519.586	519.210	519.607	519.588	519.269	544.575	548.131
4000.00	519.853	519.586	519.210	519.607	519.588	519.269	544.620	548.233
4010.00	519.847	519.580	519.204	519.600	519.582	519.262	544.518	548.175
4020.00	519.841	519.580	519.204	519.600	519.582	519.269	544.442	548.124
4030.00	519.841	519.580	519.204	519.594	519.582	519.256	544.461	548.156
4040.00	519.834	519.573	519.204	519.594	519.576	519.262	544.499	548.252
4050.00	519.834	519.573	519.197	519.594	519.576	519.262	544.563	548.335
4060.00	519.841	519.573	519.204	519.594	519.582	519.262	544.696	548.482
4070.00	519.834	519.573	519.197	519.594	519.576	519.262	544.708	548.533
4080.00	519.834	519.573	519.197	519.594	519.576	519.256	544.715	548.533
4090.00	519.834	519.567	519.197	519.588	519.576	519.250	544.689	548.507
4100.00	519.828	519.573	519.197	519.588	519.576	519.256	513.477	548.424
4110.00	519.828	519.567	514.955	519.588	519.570	519.250	513.458	548.246
4120.00	519.828	519.567	515.062	519.588	519.570	519.243	513.440	548.335
4130.00	519.828	519.567	515.030	519.588	519.570	519.237	513.427	548.622
4140.00	519.822	519.567	515.005	519.588	519.570	519.237	545.392	548.686
4150.00	516.731	519.567	514.999	519.588	519.563	519.237	545.418	548.731
4160.00	516.725	519.561	514.993	519.588	519.563	519.237	545.424	548.846
4170.00	519.809	519.567	519.166	519.588	519.563	519.237	545.430	548.846
4180.00	519.834	519.567	519.197	519.581	519.570	519.231	545.361	548.807
4190.00	519.834	514.283	519.204	519.581	519.570	519.243	545.386	548.916
4200.00	519.828	514.264	519.204	519.575	519.563	519.231	545.418	548.954
4210.00	519.822	514.252	519.197	519.575	519.557	519.225	545.481	549.114
4220.00	519.828	514.245	519.197	519.575	515.398	519.231	545.544	549.177
4230.00	519.828	519.548	519.204	519.575	515.398	519.231	545.620	549.286
4240.00	519.828	519.554	519.204	519.581	515.405	519.231	545.671	549.407
4250.00	519.828	519.554	519.210	519.600	519.557	519.231	545.601	549.407
4260.00	519.828	519.554	519.210	496.369	519.557	519.231	545.544	549.356
4270.00	519.822	519.548	519.210	496.381	519.557	519.231	545.532	549.362
4280.00	519.828	519.554	519.210	496.381	519.557	519.237	545.589	549.484
4290.00	519.828	519.554	519.210	496.387	519.557	519.231	545.627	549.567
4300.00	519.822	519.548	519.204	519.581	519.557	519.231	545.665	549.656

TABLE A-6
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
4310.00	519.828	519.548	519.210	519.581	519.557	519.243	545.728	549.765
4320.00	519.822	519.548	519.210	519.575	519.557	496.352	545.722	549.720
4330.00	519.822	519.548	519.210	519.575	519.557	496.408	545.677	549.758
4340.00	519.822	519.554	519.210	519.575	519.557	496.546	545.741	549.886
4350.00	519.822	519.548	519.210	519.575	519.557	519.256	545.576	549.714
4360.00	519.816	519.548	519.210	519.569	519.551	519.250	545.506	549.682
4370.00	519.816	519.542	519.210	519.569	519.551	519.250	545.551	549.765
4380.00	519.822	519.554	519.216	519.569	519.557	519.250	545.652	549.924
4390.00	519.816	519.542	519.216	519.575	519.551	519.250	545.728	550.033
4400.00	519.809	519.542	519.204	519.562	519.551	519.237	545.728	550.058
4410.00	519.809	519.542	519.197	519.569	519.545	519.237	545.766	550.160
4420.00	519.809	519.542	519.204	519.575	519.551	519.237	545.772	550.141
4430.00	519.809	519.542	519.204	519.569	519.551	519.250	545.855	550.288
4440.00	519.816	519.548	519.210	519.575	519.557	519.243	545.994	550.473
4450.00	519.816	519.548	519.210	519.575	519.557	519.237	546.026	550.524
4460.00	519.816	519.548	519.210	519.569	519.557	519.237	546.051	550.588
4470.00	519.816	519.548	519.210	519.575	519.557	519.243	546.039	550.684
4480.00	519.816	519.548	519.216	519.575	519.557	519.243	546.159	550.748
4490.00	519.822	519.548	519.210	519.581	519.557	519.237	546.286	550.895
4500.00	519.822	519.554	519.223	519.581	519.563	519.243	546.235	550.914
4510.00	519.822	519.554	519.223	519.581	519.563	519.243	546.241	550.920
4520.00	519.822	519.554	519.216	519.581	519.563	519.243	546.254	550.971
4530.00	519.828	519.561	519.235	519.575	519.563	519.243	546.020	550.684
4540.00	519.822	519.554	519.223	519.581	519.563	519.243	546.260	551.016
4550.00	519.822	519.554	519.229	519.588	519.563	519.250	546.317	551.112
4560.00	519.822	519.554	519.223	519.581	519.563	519.256	546.349	551.112
4570.00	519.834	519.561	519.241	519.588	519.570	519.256	546.311	551.093

TABLE A-7
WATER LEVELS DURING RECOVERY FROM 72-HOUR CONSTANT RATE INJECTION TEST WELLS 31550 THROUGH 31556 FROM 10/16/95 TO 10/17/95

SE2000
Environmental Logger
10/17 13:12

Unit# 639 Test 0

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Reference	518.950	518.973	518.947	518.918	518.956	518.879	519.067	519.138
PSI at Ref.	0.927	2.021	1.599	9.723	1.524	9.763	2.366	0.481
SG	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Linearity	0.115	0.133	0.131	0.116	0.124	0.128	0.138	0.121
Scale factor	20.037	20.026	19.888	19.933	19.847	19.812	19.865	20.042
Offset	0.023	-0.099	-0.198	-0.098	0.098	0.051	0.086	-0.012
Delay mSEC	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Step 2 10/16 15:20:16								
Elapsed Time								
0.0000	519.834	519.567	519.241	519.594	519.570	519.250	546.102	550.729
0.0083	519.841	519.567	519.241	519.588	519.570	519.256	545.861	550.109
0.0166	519.834	519.561	519.241	519.588	519.570	519.256	546.058	550.135
0.0250	519.834	519.561	519.241	519.588	519.570	519.256	545.994	549.994
0.0333	519.834	519.554	519.241	519.588	519.570	519.256	545.912	549.854
0.0416	519.834	519.554	519.241	519.588	519.563	519.256	545.715	549.394
0.0500	519.834	519.554	519.241	519.588	519.563	519.250	545.557	548.954
0.0583	519.828	519.554	519.241	519.581	519.557	519.250	545.437	548.603
0.0666	519.828	519.548	519.241	519.575	519.557	519.250	545.259	548.169
0.0750	519.828	519.548	519.241	519.575	519.557	519.250	545.101	547.799
0.0833	519.828	519.548	519.241	519.575	519.557	519.250	544.911	547.454
0.0916	519.822	519.548	519.241	519.575	519.551	519.250	544.727	547.078
0.1000	519.822	519.542	519.241	519.575	519.551	519.250	544.512	546.778
0.1083	519.816	519.542	519.241	519.569	519.551	519.250	544.322	546.421
0.1166	519.816	519.542	519.241	519.569	519.545	519.250	544.107	546.064
0.1250	519.816	519.542	519.241	519.569	519.545	519.250	543.891	545.758
0.1333	519.809	519.535	519.241	519.562	519.545	519.250	543.651	545.401
0.1416	519.809	519.535	519.241	519.562	519.545	519.243	543.416	545.056
0.1500	519.803	519.535	519.241	519.556	519.538	519.250	543.176	544.719
0.1583	519.803	519.529	519.241	519.556	519.538	519.250	542.948	544.400
0.1666	519.797	519.529	519.241	519.556	519.538	519.243	542.701	544.088
0.1750	519.797	519.529	519.241	519.556	519.538	519.250	542.460	543.775
0.1833	519.790	519.529	519.241	519.550	519.532	519.243	542.214	543.476
0.1916	519.790	519.529	519.241	519.543	519.532	519.243	541.967	543.182
0.2000	519.784	519.523	519.241	519.550	519.532	519.243	541.720	542.883
0.2083	519.784	519.523	519.241	519.543	519.526	519.243	541.467	542.590
0.2166	519.778	519.516	519.241	519.543	519.526	519.243	541.220	542.297
0.2250	519.771	519.523	519.241	519.543	519.526	519.243	540.967	542.010
0.2333	519.765	519.516	519.241	519.537	519.526	519.243	540.720	541.723
0.2416	519.765	519.516	519.241	519.537	519.519	519.243	540.474	541.443

TABLE A-7
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
0.2500	519.759	519.510	519.241	519.531	519.519	519.243	540.233	541.169
0.2583	519.759	519.510	519.241	519.537	519.519	519.243	539.986	540.895
0.2666	519.752	519.510	519.241	519.531	519.513	519.237	539.740	540.628
0.2750	519.746	519.510	519.241	519.524	519.513	519.243	539.499	540.360
0.2833	519.746	519.504	519.241	519.524	519.513	519.237	539.253	540.099
0.2916	519.740	519.504	519.241	519.524	519.513	519.243	539.013	539.838
0.3000	519.740	519.504	519.241	519.524	519.507	519.237	538.772	539.577
0.3083	519.733	519.504	519.241	519.518	519.507	519.237	538.538	539.323
0.3166	519.733	519.497	519.241	519.518	519.507	519.237	538.304	539.068
0.3250	519.727	519.497	519.241	519.518	519.507	519.237	538.071	538.826
0.3333	519.721	519.497	519.241	519.512	519.501	519.237	537.837	538.578
0.3500	519.714	519.491	519.241	519.512	519.494	519.237	537.382	538.094
0.3666	519.702	519.491	519.241	519.505	519.494	519.237	536.933	537.623
0.3833	519.695	519.485	519.241	519.499	519.488	519.237	536.491	537.165
0.4000	519.689	519.485	519.235	519.499	519.488	519.237	536.061	536.720
0.4166	519.683	519.485	519.235	519.493	519.482	519.231	535.644	536.281
0.4333	519.676	519.478	519.235	519.486	519.482	519.231	535.227	535.855
0.4500	519.670	519.478	519.235	519.486	519.476	519.231	534.823	535.422
0.4666	519.664	519.472	519.235	519.480	519.476	519.231	534.425	534.983
0.4833	519.657	519.472	519.235	519.480	519.469	519.231	534.034	534.589
0.5000	519.651	519.466	519.235	519.474	519.469	519.231	533.649	534.208
0.5166	519.645	519.466	519.235	519.474	519.469	519.225	533.276	533.832
0.5333	519.638	519.466	519.235	519.467	519.463	519.225	532.916	533.464
0.5500	519.632	519.459	519.235	519.461	519.463	519.225	532.563	533.108
0.5666	519.626	519.453	519.235	519.461	519.457	519.225	532.222	532.758
0.5833	519.620	519.453	519.235	519.455	519.457	519.225	531.888	532.415
0.6000	519.620	519.453	519.235	519.455	519.450	519.225	531.566	532.085
0.6166	519.613	519.453	519.235	519.448	519.450	519.225	531.232	531.722
0.6333	519.607	519.447	519.235	519.448	519.450	519.225	530.948	531.449
0.6500	519.601	519.447	519.229	519.448	519.444	519.218	530.651	531.138
0.6666	519.594	519.447	519.235	519.442	519.444	519.218	530.355	530.839
0.6833	519.588	519.440	519.235	519.436	519.438	519.218	530.071	530.547
0.7000	519.588	519.440	519.229	519.436	519.438	519.218	529.794	530.261
0.7166	519.582	519.434	519.229	519.429	519.438	519.218	529.522	529.982
0.7333	519.575	519.434	519.235	519.429	519.432	519.218	529.264	529.715
0.7500	519.575	519.434	519.229	519.423	519.432	519.218	529.005	529.448
0.7666	519.569	519.434	519.229	519.429	519.432	519.218	528.760	529.194
0.7833	519.563	519.428	519.229	519.423	519.425	519.218	528.520	528.947
0.8000	519.556	519.428	519.229	519.423	519.425	519.212	528.281	528.706
0.8166	519.556	519.428	519.229	519.417	519.425	519.218	528.054	528.464
0.8333	519.550	519.428	519.229	519.417	519.419	519.212	527.827	528.236
0.8500	519.544	519.421	519.229	519.411	519.419	519.212	527.606	528.007
0.8666	519.544	519.421	519.229	519.411	519.419	519.212	527.398	527.791
0.8833	519.537	519.415	519.229	519.411	519.413	519.212	527.190	527.576
0.9000	519.531	519.415	519.229	519.404	519.413	519.212	526.989	527.373
0.9166	519.531	519.415	519.229	519.404	519.413	519.212	526.793	527.169
0.9333	519.525	519.415	519.229	519.398	519.413	519.212	526.604	526.973
0.9500	519.525	519.409	519.229	519.398	519.406	519.212	526.415	526.782
0.9666	519.518	519.409	519.229	519.398	519.406	519.212	526.239	526.598
0.9833	519.512	519.409	519.229	519.398	519.406	519.206	526.063	526.414
1.0000	519.512	519.402	519.229	519.392	519.406	519.206	525.893	526.243

TABLE A-7
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1.2000	519.474	519.396	519.229	519.373	519.388	519.206	524.092	524.372
1.4000	519.442	519.383	519.229	519.354	519.375	519.199	522.890	523.142
1.6000	519.424	519.371	519.229	519.341	519.363	519.193	522.028	522.242
1.8000	519.405	519.364	519.229	519.328	519.356	519.193	521.411	521.608
2.0000	519.392	519.358	519.223	519.322	519.350	519.187	520.971	521.158
2.2000	519.379	519.352	519.223	519.316	519.350	519.187	520.650	520.904
2.4000	519.373	519.346	519.223	519.303	519.344	519.187	520.430	520.892
2.6000	519.360	519.346	519.223	519.297	519.337	519.180	520.279	520.885
2.8000	519.354	519.346	519.223	519.284	519.337	519.180	520.147	520.885
3.0000	519.354	519.339	519.216	519.278	519.331	519.180	520.047	520.885
3.2000	519.348	519.339	519.223	519.271	519.331	519.174	519.959	520.740
3.4000	519.341	519.339	519.223	519.271	519.331	519.180	519.890	520.714
3.6000	519.341	519.333	519.223	519.265	519.325	519.174	519.833	520.638
3.8000	519.341	519.333	519.223	519.265	519.325	519.174	519.795	520.569
4.0000	519.335	519.333	519.223	519.259	519.325	519.174	519.758	520.518
4.2000	519.335	519.327	519.223	519.259	519.325	519.174	519.726	520.518
4.4000	519.329	519.327	519.223	519.259	519.319	519.174	519.701	520.480
4.6000	519.329	519.327	519.223	519.252	519.319	519.174	519.676	520.442
4.8000	519.329	519.327	519.223	519.259	519.319	519.174	519.657	520.442
5.0000	519.329	519.327	519.223	519.252	519.319	519.174	519.644	520.423
5.2000	519.322	519.320	519.223	519.252	519.312	519.168	519.626	520.410
5.4000	519.322	519.320	519.223	519.252	519.312	519.168	519.619	520.372
5.6000	519.322	519.320	519.223	519.252	519.312	519.168	519.607	520.379
5.8000	519.322	519.320	519.223	519.252	519.312	519.168	519.594	520.372
6.0000	519.316	519.314	519.223	519.252	519.312	519.168	519.588	520.353
6.2000	519.316	519.314	519.223	519.246	519.306	519.162	519.582	520.353
6.4000	519.316	519.314	519.223	519.246	519.306	519.168	519.569	520.328
6.6000	519.310	519.314	519.223	519.246	519.306	519.168	519.563	520.328
6.8000	519.310	519.308	519.223	519.246	519.306	519.162	519.556	520.328
7.0000	519.310	519.308	519.223	519.240	519.306	519.162	519.550	520.322
7.2000	519.310	519.308	519.223	519.240	519.300	519.162	519.544	520.296
7.4000	519.310	519.308	519.223	519.240	519.306	519.162	519.538	520.303
7.6000	519.310	519.308	519.223	519.240	519.306	519.162	519.531	520.303
7.8000	519.310	519.308	519.229	519.240	519.300	519.162	519.525	520.296
8.0000	519.303	519.308	519.223	519.240	519.300	519.162	519.519	520.271
8.2000	519.303	519.308	519.223	519.240	519.300	519.162	519.519	520.271
8.4000	519.303	519.301	519.223	519.240	519.300	519.162	519.512	520.271
8.6000	519.303	519.308	519.223	519.240	519.300	519.162	519.506	520.271
8.8000	519.303	519.301	519.229	519.233	519.294	519.155	519.506	520.195
9.0000	519.303	519.301	519.229	519.233	519.294	519.155	519.500	520.195
9.2000	519.297	519.301	519.229	519.233	519.294	519.155	519.494	520.189
9.4000	519.303	519.301	519.229	519.233	519.294	519.155	519.494	520.182
9.6000	519.297	519.301	519.229	519.233	519.294	519.155	519.487	520.176
9.8000	519.297	519.295	519.229	519.233	519.294	519.155	519.481	520.170
10.0000	519.297	519.295	519.223	519.227	519.287	519.155	519.475	520.176
12.0000	519.284	519.282	519.216	519.215	519.281	519.149	519.450	520.163
14.0000	519.278	519.276	519.216	519.208	519.275	519.143	519.424	520.081
16.0000	519.272	519.270	519.223	519.208	519.268	519.136	519.406	520.081
18.0000	519.265	519.263	519.223	519.196	519.256	519.130	519.393	520.081
20.0000	519.259	519.257	519.216	519.183	519.250	519.124	519.387	520.081
22.0000	519.259	519.251	519.210	519.177	519.243	519.117	519.374	520.081

TABLE A-7
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
24.0000	519.253	519.244	519.216	519.170	519.243	519.117	519.368	520.075
26.0000	519.253	519.238	519.210	519.170	519.237	519.111	519.362	520.075
28.0000	519.246	519.232	519.210	519.158	519.231	519.111	519.349	520.075
30.0000	519.246	519.225	519.210	519.158	519.224	519.105	519.343	520.068
32.0000	519.240	519.225	519.210	519.158	519.218	519.105	519.336	520.068
34.0000	519.240	519.219	519.210	519.145	519.218	519.099	519.330	520.062
36.0000	519.240	519.213	519.210	519.139	519.212	519.099	519.324	520.056
38.0000	519.240	519.206	519.210	519.145	519.206	519.092	519.318	520.056
40.0000	519.234	519.200	519.197	519.132	519.199	519.086	519.311	520.049
42.0000	519.234	519.200	519.204	519.132	519.199	519.086	519.305	520.049
44.0000	519.221	519.187	519.197	519.126	519.187	519.080	519.299	520.043
46.0000	519.221	519.181	519.191	519.120	519.187	519.080	519.292	519.967
48.0000	519.221	519.181	519.191	519.120	519.181	519.080	519.286	519.961
50.0000	519.215	519.175	519.185	519.113	519.181	519.073	519.286	519.961
52.0000	519.221	519.175	519.191	519.113	519.174	519.073	519.280	519.954
54.0000	519.221	519.175	519.191	519.113	519.174	519.067	519.274	519.954
56.0000	519.215	519.168	519.191	519.107	519.168	519.067	519.274	519.954
58.0000	519.221	519.168	519.197	519.107	519.168	519.067	519.267	519.948
60.0000	519.215	519.162	519.197	519.101	519.162	519.061	519.261	519.948
62.0000	519.215	519.156	519.185	519.094	519.162	519.061	519.261	519.935
64.0000	519.221	519.156	519.191	519.094	519.155	519.061	519.255	519.935
66.0000	519.215	519.156	519.185	519.088	519.155	519.054	519.248	519.929
68.0000	519.215	519.149	519.191	519.082	519.149	519.054	519.248	519.834
70.0000	519.215	519.149	519.191	519.082	519.149	519.048	519.292	520.125
72.0000	519.215	519.143	519.197	519.082	519.143	519.048	519.248	521.538
74.0000	519.209	519.143	519.197	519.075	519.143	519.048	519.242	521.741
76.0000	519.209	519.137	519.185	519.075	519.137	519.042	519.223	521.728
78.0000	519.209	519.137	519.185	519.069	519.137	519.042	519.230	521.735
80.0000	519.209	519.137	519.185	519.069	519.137	519.042	519.230	521.855
82.0000	519.209	519.130	519.185	519.069	519.130	519.036	519.230	521.855
84.0000	519.209	519.130	519.191	519.069	519.130	519.036	519.204	521.855
86.0000	519.209	519.130	519.191	519.069	519.130	519.036	519.217	521.849
88.0000	519.209	519.124	519.191	519.063	519.124	519.036	519.211	521.874
90.0000	519.209	519.124	519.185	519.063	519.124	519.029	519.211	521.893
92.0000	519.209	519.124	519.185	519.056	519.124	519.029	519.211	521.893
94.0000	519.209	519.124	519.185	519.056	519.124	519.029	519.211	521.893
96.0000	519.209	519.118	519.185	519.050	519.118	519.029	519.204	521.893
98.0000	519.209	519.118	519.185	519.050	519.118	519.023	519.204	521.880
100.000	519.209	519.118	519.185	519.050	519.118	519.023	519.204	521.874
110.000	519.202	519.105	519.179	519.038	519.105	519.017	519.192	521.868
120.000	519.209	519.099	519.185	519.031	519.099	519.010	519.186	521.861
130.000	519.202	519.093	519.185	519.025	519.086	519.004	519.173	520.322
140.000	519.202	519.086	519.179	519.019	519.080	518.998	519.167	520.315
150.000	519.202	519.080	519.185	507.069	519.074	518.991	513.496	520.309
160.000	519.196	519.067	519.179	496.369	519.068	518.979	513.502	520.277
170.000	519.196	519.067	519.179	496.356	519.061	518.979	513.502	520.277
180.000	519.196	519.061	519.179	519.006	519.055	518.973	519.085	520.265
190.000	516.775	519.055	519.172	519.000	519.055	496.759	519.085	520.258
200.000	516.769	519.048	519.172	518.993	519.049	496.333	519.072	520.258
210.000	516.718	519.048	519.166	518.987	519.042	496.333	519.072	520.252
220.000	519.063	519.042	519.166	518.987	519.036	518.903	519.066	520.246

TABLE A-7
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
230.000	519.025	519.036	515.124	518.981	515.392	518.916	519.060	520.246
240.000	519.006	519.029	515.106	518.974	515.379	518.910	519.054	520.233
250.000	518.994	519.023	515.087	518.968	518.992	518.910	519.047	520.227
260.000	518.994	519.023	515.081	518.962	519.005	518.903	519.047	520.220
270.000	518.987	519.017	518.959	518.962	519.005	518.903	519.041	520.214
280.000	518.975	514.271	518.996	518.955	518.999	518.897	519.035	520.214
290.000	518.968	514.252	518.996	518.949	518.992	518.891	519.028	520.201
300.000	518.975	514.239	518.996	518.949	518.992	518.891	519.028	520.195
310.000	518.968	518.972	518.990	518.943	518.986	518.891	519.022	520.195
320.000	518.962	518.972	518.990	518.943	518.986	518.884	519.022	520.189
330.000	518.962	518.972	518.984	518.936	518.980	518.878	519.016	520.182
340.000	518.956	518.966	518.984	518.936	518.973	518.878	519.016	520.176
350.000	518.949	518.966	518.978	518.930	518.973	518.872	519.010	520.163
360.000	518.949	518.960	518.971	518.924	518.967	518.872	519.010	520.163
370.000	518.943	518.960	518.971	518.924	518.967	518.865	519.003	520.151
380.000	518.943	518.960	518.971	518.924	518.967	518.865	519.003	520.151
390.000	518.943	518.953	518.965	518.917	518.961	518.859	518.997	520.144
400.000	518.937	518.953	518.965	518.917	518.961	518.859	518.997	520.138
410.000	518.937	518.947	518.965	518.917	518.955	518.859	518.991	520.138
420.000	518.930	518.947	518.959	518.911	518.955	518.853	518.991	520.132
430.000	518.930	518.947	518.959	518.911	518.955	518.853	518.991	520.132
440.000	518.930	518.947	518.959	518.911	518.948	518.853	518.984	520.125
450.000	518.924	518.941	518.953	518.905	518.948	518.847	518.984	520.125
460.000	518.924	518.941	518.953	518.905	518.948	518.847	518.984	520.119
470.000	518.924	518.934	518.946	518.898	518.942	518.847	518.978	520.113
480.000	518.924	518.934	518.953	518.898	518.942	518.840	518.978	520.119
490.000	518.918	518.934	518.946	518.898	518.936	518.840	518.972	520.106
500.000	518.918	518.934	518.946	518.898	518.942	518.840	518.978	520.113
510.000	518.918	518.928	518.946	518.898	518.942	518.840	518.972	520.106
520.000	518.918	518.928	518.946	518.892	518.936	518.834	518.972	520.106
530.000	518.911	518.928	518.940	518.892	518.936	518.834	518.966	520.100
540.000	518.911	518.928	518.940	518.892	518.930	518.834	518.966	520.100
550.000	518.911	518.928	518.940	518.892	518.930	518.834	518.966	520.100
560.000	518.905	518.922	518.940	518.886	518.930	518.828	518.966	520.100
570.000	518.911	518.922	518.940	518.886	518.930	518.834	518.966	520.100
580.000	518.905	518.922	518.934	518.886	518.930	518.828	518.959	520.100
590.000	518.905	518.922	518.934	518.886	518.923	518.828	518.959	520.094
600.000	518.899	518.915	518.934	518.879	518.923	518.821	518.953	520.087
610.000	518.899	518.915	518.934	518.879	518.923	518.821	518.959	520.094
620.000	518.899	518.915	518.934	518.879	518.923	518.821	518.953	520.094
630.000	518.899	518.915	518.927	518.879	518.923	518.821	518.953	520.087
640.000	518.892	518.909	518.927	518.879	518.917	518.815	518.953	520.087
650.000	518.899	518.909	518.927	518.873	518.917	518.815	518.953	520.081
660.000	518.892	518.909	518.927	518.873	518.917	518.815	518.947	520.081
670.000	518.892	518.909	518.921	518.873	518.917	518.815	518.947	520.081
680.000	518.892	518.903	518.921	518.867	518.911	518.809	518.947	520.075
690.000	518.886	518.903	518.921	518.867	518.911	518.809	518.941	520.068
700.000	518.886	518.903	518.921	518.867	518.911	518.809	518.941	520.068
710.000	518.886	518.903	518.915	518.867	518.904	518.809	518.941	520.062
720.000	518.886	518.903	518.921	518.867	518.904	518.809	518.941	520.062
730.000	518.886	518.897	518.915	518.867	518.904	518.809	518.941	520.062

TABLE A-7
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
740.000	518.886	518.897	518.915	518.861	518.904	518.803	518.934	520.056
750.000	518.886	518.903	518.915	518.861	518.904	518.809	518.941	520.062
760.000	518.886	518.897	518.915	518.861	518.904	518.809	518.934	520.062
770.000	518.880	518.897	518.915	518.861	518.904	518.803	518.934	520.062
780.000	518.880	518.897	518.915	518.861	518.904	518.803	518.934	520.062
790.000	518.873	518.890	518.909	518.861	518.898	518.803	518.934	520.056
800.000	518.880	518.897	518.909	518.861	518.898	518.803	518.934	520.056
810.000	518.873	518.890	518.909	518.854	518.898	518.796	518.934	520.049
820.000	518.873	518.890	518.909	518.854	518.898	518.796	518.928	520.049
830.000	518.873	518.890	518.909	518.854	518.898	518.796	518.928	520.049
840.000	518.873	518.890	518.902	518.854	518.892	518.796	518.928	520.043
850.000	518.873	518.890	518.909	518.854	518.892	518.796	518.928	520.043
860.000	518.873	518.890	518.909	518.854	518.892	518.796	518.928	520.049
870.000	518.867	518.884	518.902	518.854	518.892	518.790	518.922	520.043
880.000	518.867	518.884	518.902	518.848	518.892	518.790	518.922	520.037
890.000	518.861	518.878	518.896	518.842	518.886	518.784	518.915	520.030
900.000	518.861	518.878	518.896	518.848	518.886	518.784	518.915	520.024
910.000	518.861	518.878	518.896	518.842	518.886	518.784	518.915	520.018
920.000	518.867	518.884	518.896	518.848	518.886	518.790	518.922	520.018
930.000	518.867	518.884	518.896	518.848	518.886	518.790	518.922	520.024
940.000	518.861	518.878	518.896	518.842	518.886	518.790	518.915	520.018
950.000	518.861	518.878	518.896	518.842	518.886	518.784	518.915	520.018
960.000	518.867	518.884	518.896	518.848	518.886	518.790	518.915	520.018
970.000	518.861	518.878	518.896	518.842	518.886	518.784	518.915	520.018
980.000	518.861	518.878	518.896	518.842	518.879	518.784	518.915	520.018
990.000	518.861	518.878	518.896	518.842	518.886	518.784	518.915	520.018
1000.00	518.861	518.871	518.890	518.842	518:879	518.784	518.915	520.018
1010.00	518.861	518.878	518.890	518.842	518.879	518.777	518.903	519.809
1020.00	518.861	518.878	518.896	518.842	518.879	518.784	518.915	519.809
1030.00	518.855	518.878	518.890	518.835	518.879	518.777	518.909	519.809
1040.00	518.861	518.878	518.890	518.835	518.879	518.777	518.909	519.809
1050.00	518.855	518.871	518.890	518.835	518.879	518.777	518.909	519.802
1060.00	518.855	518.871	518.883	518.829	518.873	518.771	518.909	519.796
1070.00	518.855	518.871	518.883	518.835	518.873	518.777	518.909	519.796
1080.00	518.855	518.871	518.883	518.829	518.873	518.771	518.903	519.796
1090.00	518.855	518.871	518.890	518.835	518.873	518.777	518.909	519.796
1100.00	518.855	518.871	518.890	518.835	518.879	518.777	518.909	519.796
1110.00	518.855	518.871	518.883	518.835	518.873	518.777	518.909	519.802
1120.00	518.855	518.871	518.890	518.829	518.879	518.777	518.909	519.802
1130.00	518.855	518.871	518.890	518.829	518.873	518.777	518.909	519.802
1140.00	518.855	518.871	518.890	518.835	518.879	518.777	518.909	519.809
1150.00	518.855	518.871	518.890	518.829	518.873	518.777	518.909	519.809
1160.00	518.855	518.871	518.890	518.829	518.873	518.771	518.903	519.809
1170.00	518.855	518.871	518.890	518.829	518.879	518.777	518.909	519.815
1180.00	518.855	518.871	518.890	518.829	518.873	518.771	518.903	519.815
1190.00	518.855	518.871	518.890	518.829	518.879	518.777	518.909	518.105
1200.00	518.855	518.871	518.890	518.829	518.879	518.777	518.909	518.067
1210.00	518.855	518.871	518.890	518.829	518.873	518.777	518.903	518.194
1220.00	518.848	518.865	518.890	518.829	518.873	518.777	518.903	517.991
1230.00	518.848	518.865	518.877	518.823	518.873	518.771	518.903	517.997
1240.00	518.848	518.865	518.896	518.829	518.873	518.777	518.903	517.997

TABLE A-7
(Continued)

Setups:	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	INPUT 7	INPUT 8
Type	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)	Level (F)
Mode	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
I.D.	31551	31552	31553	31554	31555	31556	31550OUT	31550IN
Elapsed Time								
1250.00	518.855	518.865	518.883	518.823	518.873	518.777	518.903	517.997
1260.00	518.855	518.871	518.896	518.829	518.873	518.777	518.903	517.997
1270.00	518.855	518.865	518.883	518.823	518.873	518.777	518.903	517.991
1280.00	518.855	518.871	518.890	518.829	518.873	518.777	518.903	517.985
1290.00	518.855	518.871	518.896	518.829	518.873	518.777	518.903	517.978
1300.00	518.855	518.865	518.896	518.829	518.879	518.777	518.903	517.972
1310.00	518.867	518.878	518.902	518.829	518.879	518.777	518.909	517.978

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Appendix B

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APPENDIX B

WATER QUALITY DATA

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TABLE B-1
WATER QUALITY IN WELL 31550 BEFORE INJECTION, 10/07/95 THROUGH 10/11/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 100731550
Setup Date (MMDDYY): 100795
Setup Time (HHMMSS): 130222
Starting Date (MMDDYY): 100795
Starting Time (HHMMSS): 131500
Stopping Date (MMDDYY): 101695
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 010000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat: 745.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Meters, Depth-100m
Turbidity: Ratio, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 100795										
131500	10.94	6.99	0.906	0.5	51.2	5.53	307	7.9	N/A	15.6&
141500	10.94	6.99	0.911	0.5	48.9	5.28	310	7.9	N/A	15.7&
151500	10.93	7.00	0.912	0.5	45.1	4.86	313	7.9	N/A	15.7&
161500	10.91	7.01	0.913	0.5	43.7	4.72	317	7.9	N/A	15.6&
171500	10.93	7.02	0.915	0.5	42.9	4.63	320	7.9	N/A	15.6&
181500	10.93	7.03	0.915	0.5	41.7	4.50	323	8.0	N/A	15.6&
191500	10.93	7.03	0.915	0.5	41.0	4.42	326	8.0	N/A	15.6&
201500	10.93	7.04	0.913	0.5	39.7	4.29	329	8.0	N/A	15.6&
211500	10.93	7.05	0.913	0.5	37.8	4.08	331	8.0	N/A	15.6&
221500	10.93	7.05	0.913	0.5	36.2	3.91	334	8.0	N/A	15.6&
231500	10.93	7.06	0.914	0.5	35.5	3.83	337	8.0	N/A	15.5&
Date (MMDDYY): 100895										
001500	10.93	7.07	0.916	0.5	34.4	3.71	340	8.0	N/A	15.5&
011500	10.93	7.07	0.916	0.5	33.7	3.64	342	8.0	N/A	15.5&
021500	10.93	7.08	0.918	0.5	32.8	3.54	345	8.0	N/A	15.5&
031500	10.93	7.08	0.918	0.5	31.9	3.45	347	8.0	N/A	15.5&
041500	10.93	7.09	0.922	0.5	31.4	3.39	349	8.0	N/A	15.5&
051500	10.93	7.09	0.926	0.5	30.9	3.33	350	8.0	N/A	15.4&
061500	10.93	7.10	0.931	0.5	30.3	3.27	352	8.0	N/A	15.4&
071500	10.93	7.11	0.933	0.5	29.5	3.18	354	8.0	N/A	15.4&

TABLE B-1
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
081500	10.93	7.11	0.933	0.5	27.3	2.95	356	8.0	N/A	15.4&
091500	10.93	7.12	0.931	0.5	25.4	2.74	357	8.0	N/A	15.4&
101500	10.93	7.13	0.927	0.5	23.8	2.57	359	8.0	N/A	15.4&
111500	10.93	7.14	0.924	0.5	22.5	2.43	360	8.0	N/A	15.4&
121500	10.93	7.15	0.920	0.5	21.8	2.36	363	8.0	N/A	15.4&
131500	10.93	7.16	0.915	0.5	21.5	2.32	366	8.0	N/A	15.4&
141500	10.93	7.17	0.913	0.5	21.1	2.28	370	8.0	N/A	15.5&
151500	10.93	7.17	0.913	0.5	20.9	2.26	376	8.0	N/A	15.5&
161500	10.93	7.17	0.913	0.5	20.8	2.24	382	8.0	N/A	15.5&
171500	10.93	7.18	0.913	0.5	20.8	2.24	389	8.0	N/A	15.6&
181500	10.93	7.18	0.913	0.5	20.6	2.22	396	8.0	N/A	15.5&
191500	10.93	7.18	0.913	0.5	20.8	2.24	404	8.0	N/A	15.5&
201500	10.93	7.19	0.913	0.5	20.6	2.22	412	8.0	N/A	15.4&
211500	10.93	7.19	0.914	0.5	20.6	2.22	419	8.0	N/A	15.4&
221500	10.93	7.20	0.914	0.5	20.8	2.24	428	8.0	N/A	15.4&
231500	10.93	7.20	0.915	0.5	20.6	2.22	437	8.0	N/A	15.4&
Date (MMDDYY):	100995									
001500	10.93	7.20	0.915	0.5	20.6	2.22	445	8.0	N/A	15.4&
011500	10.93	7.21	0.917	0.5	20.8	2.24	451	8.0	N/A	15.3&
021500	10.93	7.21	0.918	0.5	20.8	2.24	458	8.0	N/A	15.3&
031500	10.93	7.21	0.925	0.5	20.8	2.24	467	8.0	N/A	15.3&
041500	10.93	7.21	0.948	0.5	20.8	2.24	473	8.0	N/A	15.3&
051500	10.93	7.22	0.957	0.5	20.8	2.24	479	8.0	N/A	15.3&
061500	10.93	7.22	0.958	0.5	20.6	2.22	484	8.0	N/A	15.3&
071500	10.93	7.22	0.958	0.5	20.6	2.22	488	8.0	N/A	15.3&
081500	10.93	7.22	0.957	0.5	20.6	2.22	492	8.0	N/A	15.3&
091500	10.29	7.72	0.008	0.0	100.6	11.05	410	0.2	N/A	15.2&
101500	11.78	7.25	0.891	0.5	34.4	3.65	363	8.0	N/A	15.1&
111500	11.47	7.23	0.919	0.5	28.8	3.07	384	8.0	N/A	15.2&
121500	11.30	7.23	0.943	0.5	25.7	2.75	400	8.0	N/A	15.3&
131500	11.19	7.23	0.961	0.5	24.4	2.62	414	8.0	N/A	15.3&
141500	11.12	7.23	0.965	0.5	22.9	2.46	426	8.0	N/A	15.4&
151500	11.07	7.24	0.964	0.5	21.9	2.35	436	8.0	N/A	15.4&
161500	11.02	7.24	0.926	0.5	21.9	2.36	444	8.0	N/A	15.4&
171500	11.01	7.25	0.947	0.5	21.2	2.29	458	8.0	N/A	15.4&
181500	10.99	7.25	0.934	0.5	20.7	2.23	472	8.0	N/A	15.4&
191500	10.97	7.25	0.956	0.5	20.5	2.21	482	8.0	N/A	15.4&
201500	10.97	7.25	0.960	0.5	20.7	2.23	487	8.0	N/A	15.4&
211500	10.97	7.25	0.962	0.5	21.2	2.29	490	8.0	N/A	15.3&
221500	10.96	7.25	0.962	0.5	20.9	2.25	493	8.0	N/A	15.3&
231500	10.96	7.25	0.963	0.5	21.1	2.27	495	8.0	N/A	15.3&

TABLE B-1
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101095										
001500	10.95	7.25	0.963	0.5	21.3	2.29	497	7.9	N/A	15.2&
011500	10.96	7.26	0.966	0.5	21.3	2.29	498	8.0	N/A	15.2&
021500	10.94	7.26	0.965	0.5	21.3	2.29	498	8.0	N/A	15.2&
031500	10.94	7.26	0.969	0.5	21.3	2.29	498	8.0	N/A	15.2&
041500	10.96	7.26	0.965	0.5	21.3	2.29	499	8.0	N/A	15.2&
051500	10.94	7.26	0.966	0.5	21.3	2.29	498	8.0	N/A	15.2&
061500	10.94	7.26	0.963	0.5	21.3	2.29	497	8.0	N/A	15.2&
071500	10.93	7.26	0.963	0.5	21.3	2.30	496	7.9	N/A	15.2&
081500	10.94	7.27	0.968	0.5	21.1	2.28	494	8.0	N/A	15.1&
091500	10.94	7.27	0.968	0.5	21.3	2.29	492	8.0	N/A	15.2&
101500	10.94	7.27	0.970	0.5	21.1	2.28	488	8.0	N/A	15.2&
111500	10.96	7.20	0.974	0.5	33.1	3.57	471	8.0	N/A	15.2&
121500	10.93	7.22	0.960	0.5	34.4	3.71	468	7.7	N/A	15.2&
131500	10.94	7.24	0.935	0.5	28.0	3.02	485	8.0	N/A	15.2&
141500	10.93	7.24	0.944	0.5	26.4	2.85	489	7.9	N/A	15.2&
151500	10.94	7.25	0.988	0.5	24.5	2.64	494	8.0	N/A	15.3&
161500	10.94	7.25	0.980	0.5	23.8	2.56	497	8.0	N/A	15.3&
171500	10.94	7.26	0.981	0.5	23.4	2.52	498	8.0	N/A	15.3&
181500	10.93	7.26	0.986	0.5	24.5	2.64	500	7.9	N/A	15.3&
191500	10.94	7.26	0.986	0.5	23.9	2.58	500	8.0	N/A	15.3&
201500	10.94	7.26	0.984	0.5	23.8	2.56	501	8.0	N/A	15.3&
211500	10.94	7.26	0.987	0.5	23.4	2.52	502	8.0	N/A	15.3&
221500	10.94	7.27	0.983	0.5	23.1	2.49	502	8.0	N/A	15.2&
231500	10.94	7.27	0.982	0.5	23.2	2.50	502	8.0	N/A	15.2&
Date (MMDDYY): 101195										
001500	10.94	7.27	0.980	0.5	22.7	2.45	503	8.0	N/A	15.2&
011500	10.94	7.27	0.978	0.5	22.2	2.39	503	8.0	N/A	15.2&
021500	10.93	7.28	0.977	0.5	22.0	2.37	503	8.0	N/A	15.2&
031500	10.93	7.28	0.977	0.5	21.8	2.35	503	8.0	N/A	15.1&
041500	10.93	7.28	0.975	0.5	21.6	2.34	502	8.0	N/A	15.1&
051500	10.94	7.28	0.975	0.5	21.3	2.29	502	8.0	N/A	15.1&
061500	10.93	7.28	0.973	0.5	21.3	2.30	501	8.0	N/A	15.1&
071500	10.94	7.28	0.973	0.5	20.9	2.26	499	8.0	N/A	15.1&
081500	10.93	7.29	0.975	0.5	20.9	2.26	498	8.0	N/A	15.1&

Recovery finished at 101195 085444

TABLE B-2
WATER QUALITY IN WELL 31551 BEFORE INJECTION, 10/07/95 THROUGH 10/11/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 100731551
Setup Date (MMDDYY): 100795
Setup Time (HHMMSS): 130544
Starting Date (MMDDYY): 100795
Starting Time (HHMMSS): 131500
Stopping Date (MMDDYY): 101695
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 010000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat: 745.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Feet, Level
Turbidity: Neph only, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 100795										
131500	10.81	7.04	1.004	0.5	39.3	4.25	355	2.27	N/A	15.2&
141500	10.79	7.04	1.026	0.5	38.3	4.14	361	2.27	N/A	15.2&
151500	10.79	7.04	1.045	0.5	38.0	4.11	361	2.26	N/A	15.2&
161500	10.78	7.04	1.054	0.6	38.0	4.11	365	2.27	N/A	15.2&
171500	10.78	7.04	1.061	0.6	37.7	4.08	371	2.27	N/A	15.3&
181500	10.78	7.05	1.068	0.6	38.0	4.11	372	2.27	N/A	15.1&
191500	10.78	7.05	1.070	0.6	37.4	4.04	377	2.27	N/A	15.2&
201500	10.78	7.05	1.068	0.6	37.4	4.04	382	2.27	N/A	15.1&
211500	10.78	7.05	1.068	0.6	37.4	4.04	388	2.27	N/A	15.1&
221500	10.78	7.05	1.072	0.6	37.4	4.04	392	2.28	N/A	15.1&
231500	10.78	7.06	1.071	0.6	37.2	4.03	394	2.28	N/A	15.1&
Date (MMDDYY): 100895										
001500	10.78	7.06	1.069	0.6	37.2	4.03	397	2.28	N/A	15.1&
011500	10.78	7.06	1.078	0.6	37.0	4.01	399	2.28	N/A	15.1&
021500	10.78	7.07	1.073	0.6	36.9	3.99	400	2.28	N/A	15.1&
031500	10.78	7.07	1.074	0.6	36.7	3.97	403	2.28	N/A	15.1&
041500	10.78	7.07	1.068	0.6	36.6	3.96	405	2.28	N/A	15.0&
051500	10.78	7.07	1.071	0.6	36.6	3.96	406	2.28	N/A	15.0&
061500	10.78	7.07	1.072	0.6	36.7	3.97	408	2.28	N/A	15.1&
071500	10.78	7.07	1.075	0.6	36.4	3.94	409	2.29	N/A	15.1&
081500	10.78	7.07	1.077	0.6	36.4	3.94	409	2.29	N/A	15.0&
091500	10.78	7.08	1.079	0.6	36.4	3.94	409	2.29	N/A	15.0&
101500	10.78	7.08	1.080	0.6	36.4	3.94	411	2.29	N/A	15.1&
111500	10.78	7.08	1.074	0.6	36.7	3.97	410	2.29	N/A	15.1&
121500	10.78	7.08	1.077	0.6	36.4	3.94	409	2.29	N/A	15.1&
131500	10.78	7.08	1.080	0.6	36.6	3.96	407	2.29	N/A	15.1&
141500	10.78	7.08	1.080	0.6	36.6	3.96	410	2.28	N/A	15.1&
151500	10.78	7.09	1.082	0.6	36.4	3.94	414	2.28	N/A	15.1&

TABLE B-2
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
161500	10.78	7.09	1.083	0.6	36.2	3.92	416	2.28	N/A	15.1&
171500	10.78	7.09	1.082	0.6	36.4	3.94	417	2.28	N/A	15.1&
181500	10.78	7.09	1.073	0.6	35.9	3.89	417	2.28	N/A	15.1&
191500	10.78	7.09	1.077	0.6	35.7	3.87	416	2.28	N/A	15.1&
201500	10.78	7.09	1.086	0.6	35.4	3.83	418	2.28	N/A	15.1&
211500	10.78	7.09	1.077	0.6	35.7	3.87	419	2.28	N/A	15.1&
221500	10.78	7.09	1.077	0.6	36.1	3.90	420	2.28	N/A	15.1&
231500	10.78	7.09	1.083	0.6	35.9	3.89	420	2.28	N/A	15.1&
Date (MMDDYY): 100995										
001500	10.78	7.09	1.082	0.6	35.9	3.89	420	2.28	N/A	15.0&
011500	10.78	7.10	1.083	0.6	35.4	3.83	422	2.28	N/A	15.1&
021500	10.78	7.10	1.085	0.6	35.3	3.82	422	2.28	N/A	15.0&
031500	10.78	7.10	1.085	0.6	35.4	3.83	422	2.28	N/A	15.1&
041500	10.78	7.10	1.082	0.6	35.4	3.83	424	2.28	N/A	15.0&
051500	10.78	7.10	1.086	0.6	35.3	3.82	427	2.28	N/A	15.0&
061500	10.78	7.10	1.088	0.6	35.4	3.83	429	2.28	N/A	15.0&
071500	10.78	7.10	1.086	0.6	35.4	3.83	429	2.28	N/A	15.0&
081500	10.78	7.10	1.083	0.6	35.7	3.87	429	2.28	N/A	15.0&
091500	10.78	7.10	1.086	0.6	35.4	3.83	429	2.28	N/A	15.1&
101500	22.21	-##.##	0.013	0.0	79.6	6.80	779	0.05	N/A	14.9&
111500	12.76	7.33	0.537	0.3	84.0	8.71	362	2.29	N/A	14.9&
121500	12.01	7.31	0.589	0.3	72.5	7.64	372	2.29	N/A	14.9&
131500	11.61	7.33	0.626	0.3	67.8	7.21	377	2.28	N/A	15.0&
141500	11.37	7.36	0.680	0.3	67.7	7.24	381	2.28	N/A	14.9&
151500	11.22	7.33	0.738	0.4	65.0	6.97	385	2.28	N/A	15.0&
161500	11.14	7.29	0.826	0.4	59.5	6.39	388	2.28	N/A	15.0&
171500	11.09	7.25	0.923	0.5	53.5	5.75	392	2.28	N/A	15.0&
181500	11.06	7.21	0.979	0.5	48.5	5.21	395	2.28	N/A	15.0&
191500	11.02	7.19	1.027	0.5	45.3	4.88	399	2.28	N/A	15.0&
201500	10.99	7.17	1.047	0.5	43.1	4.65	405	2.28	N/A	15.0&
211500	10.97	7.16	1.054	0.6	41.6	4.48	409	2.28	N/A	15.0&
221500	10.96	7.15	1.065	0.6	40.1	4.33	412	2.28	N/A	15.0&
231500	10.94	7.14	1.073	0.6	38.9	4.19	413	2.28	N/A	15.0&
Date (MMDDYY): 101095										
001500	10.93	7.13	1.088	0.6	38.3	4.13	416	2.28	N/A	15.0&
011500	10.93	7.12	1.107	0.6	37.8	4.07	420	2.28	N/A	15.0&
021500	10.91	7.12	1.095	0.6	37.5	4.04	424	2.28	N/A	15.0&
031500	10.89	7.12	1.088	0.6	37.0	4.00	426	2.28	N/A	15.0&
041500	10.89	7.11	1.089	0.6	36.9	3.98	428	2.28	N/A	14.9&
051500	10.88	7.12	1.098	0.6	36.6	3.95	428	2.28	N/A	14.9&
061500	10.88	7.12	1.104	0.6	36.4	3.93	429	2.28	N/A	14.9&
071500	10.88	7.12	1.105	0.6	36.1	3.90	432	2.29	N/A	14.9&
081500	10.88	7.12	1.104	0.6	35.9	3.88	434	2.29	N/A	14.9&
091500	10.86	7.12	1.100	0.6	35.6	3.85	435	2.29	N/A	14.9&
101500	10.86	7.12	1.107	0.6	35.5	3.83	437	2.29	N/A	14.9&
111500	10.86	7.12	1.096	0.6	36.0	3.88	431	2.28	N/A	14.9&
121500	10.84	7.12	1.076	0.6	35.2	3.80	430	2.27	N/A	15.0&
131500	10.84	7.13	1.073	0.6	36.0	3.89	431	2.28	N/A	15.0&

TABLE B-2
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
141500	10.84	7.13	1.117	0.6	35.7	3.85	432	2.28	N/A	15.0&
151500	10.84	7.13	1.101	0.6	35.3	3.82	435	2.28	N/A	15.1&
161500	10.84	7.13	1.103	0.6	34.8	3.76	439	2.28	N/A	15.0&
171500	10.84	7.13	1.099	0.6	34.7	3.75	440	2.28	N/A	15.0&
181500	10.83	7.13	1.102	0.6	34.9	3.77	442	2.28	N/A	15.0&
191500	10.83	7.13	1.101	0.6	34.9	3.77	442	2.28	N/A	15.0&
201500	10.83	7.13	1.104	0.6	35.2	3.80	444	2.28	N/A	15.0&
211500	10.83	7.13	1.101	0.6	34.9	3.77	445	2.28	N/A	15.0&
221500	10.83	7.14	1.101	0.6	34.5	3.73	446	2.28	N/A	15.0&
231500	10.83	7.13	1.101	0.6	34.1	3.68	447	2.28	N/A	15.0&
Date (MMDDYY): 101195										
001500	10.83	7.13	1.097	0.6	33.6	3.63	448	2.29	N/A	14.9&
011500	10.83	7.14	1.102	0.6	34.5	3.73	448	2.28	N/A	15.0&
021500	10.83	7.14	1.100	0.6	33.4	3.61	449	2.29	N/A	14.9&
031500	10.83	7.14	1.101	0.6	32.9	3.56	450	2.29	N/A	14.9&
041500	10.81	7.14	1.099	0.6	33.0	3.56	450	2.29	N/A	14.9&
051500	10.81	7.14	1.100	0.6	33.9	3.67	451	2.29	N/A	14.9&
061500	10.81	7.14	1.102	0.6	33.3	3.60	451	2.29	N/A	14.9&
071500	10.81	7.14	1.100	0.6	32.8	3.55	452	2.29	N/A	15.0&
081500	10.81	7.14	1.098	0.6	31.8	3.44	452	2.29	N/A	14.9&

Recovery finished at 101195 090045

TABLE B-3
WATER QUALITY IN WELL 31552 BEFORE INJECTION, 10/09/95 THROUGH 10/11/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 100931552
Setup Date (MMDDYY): 020789
Setup Time (HHMMSS): 170618
Starting Date (MMDDYY): 100995
Starting Time (HHMMSS): 113000
Stopping Date (MMDDYY): 101695
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 010000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, TDS,Temperature compensated,A->Comp 1,A->Method 1
% Sat: 750.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Feet,Level
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 100995										
Time changed from 020789 170638 to 100995 112615										
113000	11.31	7.06	0.907	0.581	37.2	4.00	285	2.18	N/A	15.6&
123000	11.09	7.06	0.924	0.591	37.2	4.03	284	2.18	N/A	15.6&
133000	11.02	7.05	0.947	0.606	37.9	4.11	285	2.18	N/A	15.6&
143000	10.99	7.06	0.963	0.616	38.9	4.22	285	2.18	N/A	15.6&
153000	10.97	7.06	0.972	0.622	39.2	4.25	285	2.18	N/A	15.7&
163000	10.95	7.07	0.979	0.627	39.5	4.29	286	2.18	N/A	15.6&
173000	10.95	7.07	0.987	0.632	39.1	4.24	287	2.18	N/A	15.6&
183000	10.95	7.07	0.992	0.635	38.8	4.21	287	2.18	N/A	15.6&
193000	10.94	7.07	1.004	0.643	39.0	4.23	287	2.18	N/A	15.6&
203000	10.94	7.07	1.006	0.644	38.8	4.21	288	2.18	N/A	15.6&
213000	10.94	7.08	1.007	0.644	38.5	4.18	288	2.18	N/A	15.5&
223000	10.93	7.08	1.009	0.646	38.2	4.15	289	2.17	N/A	15.6&
233000	10.94	7.08	1.011	0.647	38.2	4.15	289	2.18	N/A	15.5&
Date (MMDDYY): 101095										
003000	10.94	7.08	1.014	0.649	37.6	4.08	290	2.18	N/A	15.5&
013000	10.94	7.09	1.018	0.652	37.3	4.05	290	2.18	N/A	15.4&
023000	10.92	7.09	1.027	0.657	37.3	4.05	290	2.18	N/A	15.5&
033000	10.91	7.09	1.032	0.661	37.2	4.04	291	2.17	N/A	15.4&
043000	10.92	7.09	1.034	0.662	36.8	4.00	291	2.18	N/A	15.4&
053000	10.92	7.09	1.036	0.663	37.0	4.02	292	2.18	N/A	15.4&
063000	10.92	7.10	1.037	0.663	36.8	4.00	292	2.18	N/A	15.3&
073000	10.92	7.10	1.039	0.665	36.7	3.98	293	2.18	N/A	15.3&
083000	10.92	7.10	1.042	0.667	36.8	4.00	293	2.18	N/A	15.3&
093000	10.92	7.10	1.043	0.668	36.8	4.00	293	2.19	N/A	15.3&
103000	10.92	7.10	1.038	0.665	36.5	3.97	293	2.18	N/A	15.3&
113000	10.92	7.10	0.998	0.638	36.2	3.94	293	2.19	N/A	15.4&
123000	10.92	7.11	0.987	0.632	36.7	3.99	294	2.18	N/A	15.4&

TABLE B-3
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
133000	10.92	7.11	1.048	0.671	36.2	3.93	294	2.18	N/A	15.3&
143000	10.92	7.11	1.050	0.672	35.9	3.90	295	2.18	N/A	15.4&
153000	10.92	7.11	1.049	0.671	35.9	3.90	295	2.18	N/A	15.4&
163000	10.92	7.11	1.051	0.672	35.8	3.88	296	2.18	N/A	15.4&
173000	10.92	7.11	1.052	0.673	35.6	3.87	296	2.18	N/A	15.4&
183000	10.92	7.11	1.052	0.673	35.6	3.87	296	2.18	N/A	15.4&
193000	10.92	7.12	1.053	0.674	35.3	3.83	297	2.18	N/A	15.4&
203000	10.92	7.12	1.053	0.674	35.2	3.82	297	2.18	N/A	15.3&
213000	10.92	7.12	1.052	0.673	35.2	3.82	297	2.18	N/A	15.4&
223000	10.92	7.12	1.053	0.674	35.0	3.80	297	2.18	N/A	15.3&
233000	10.92	7.12	1.053	0.674	34.9	3.78	297	2.18	N/A	15.3&
Date (MMDDYY): 101195										
003000	10.92	7.12	1.053	0.674	34.7	3.77	298	2.18	N/A	15.3&
013000	10.92	7.13	1.053	0.674	34.6	3.75	298	2.18	N/A	15.3&
023000	10.92	7.13	1.052	0.673	34.2	3.72	298	2.19	N/A	15.3&
033000	10.92	7.13	1.053	0.674	34.1	3.70	299	2.19	N/A	15.3&
043000	10.92	7.13	1.053	0.674	33.9	3.69	299	2.19	N/A	15.2&
053000	10.92	7.13	1.053	0.674	33.8	3.67	299	2.19	N/A	15.2&
063000	10.92	7.13	1.053	0.674	33.6	3.65	299	2.19	N/A	15.3&
073000	10.92	7.13	1.053	0.674	33.5	3.64	300	2.19	N/A	15.2&
083000	10.92	7.14	1.053	0.674	33.3	3.62	300	2.19	N/A	15.2&

Recovery finished at 101195 090919

TABLE B-4
WATER QUALITY IN WELL 31555 BEFORE INJECTION, 10/07/95 THROUGH 10/11/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Hydrolab Surveyor 3 V1.32
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Date (MMDDYY): 101195
Log File Name: 100731555
Setup Date (MMDDYY): 100795
Setup Time (HHMMSS): 091107
Starting Date (MMDDYY): 100795
Starting Time (HHMMSS): 131500
Stopping Date (MMDDYY): 101695
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 010000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, Salinity, Temperature compensated,A->Comp 1,A->Method 1
% Sat: 745.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Meters,Depth-100m
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 100795										
131500	10.36	7.12	0.898	0.5	34.7	3.79	377	7.4	N/A	15.4&
141500	10.35	7.12	0.900	0.5	34.3	3.75	380	7.4	N/A	15.3&
151500	10.35	7.12	0.902	0.5	33.2	3.63	382	7.4	N/A	15.3&
161500	10.35	7.13	0.902	0.5	32.3	3.53	382	7.4	N/A	15.3&
171500	10.36	7.13	0.903	0.5	31.6	3.45	383	7.4	N/A	15.3&
181500	10.35	7.13	0.903	0.5	31.4	3.43	385	7.4	N/A	15.3&
191500	10.36	7.13	0.903	0.5	30.7	3.35	385	7.4	N/A	15.2&
201500	10.35	7.13	0.904	0.5	30.5	3.33	385	7.4	N/A	15.2&
211500	10.35	7.13	0.905	0.5	29.8	3.26	386	7.4	N/A	15.2&
221500	10.35	7.13	0.906	0.5	29.8	3.26	387	7.4	N/A	15.2&
231500	10.36	7.13	0.905	0.5	29.6	3.23	388	7.4	N/A	15.2&
Date (MMDDYY): 100895										
001500	10.35	7.13	0.907	0.5	29.4	3.21	388	7.4	N/A	15.2&
011500	10.35	7.13	0.906	0.5	29.6	3.24	388	7.4	N/A	15.2&
021500	10.35	7.13	0.906	0.5	29.6	3.24	388	7.4	N/A	15.1&
031500	10.35	7.13	0.906	0.5	29.4	3.21	390	7.4	N/A	15.1&
041500	10.35	7.13	0.907	0.5	29.4	3.21	394	7.4	N/A	15.1&
051500	10.36	7.13	0.909	0.5	29.1	3.18	397	7.4	N/A	15.1&
061500	10.35	7.13	0.911	0.5	29.1	3.19	398	7.4	N/A	15.1&
071500	10.35	7.13	0.914	0.5	28.9	3.16	398	7.4	N/A	15.1&
081500	10.36	7.13	0.925	0.5	28.9	3.16	398	7.4	N/A	15.2&
091500	10.36	7.14	0.925	0.5	28.9	3.16	398	7.4	N/A	15.3&
101500	10.35	7.14	0.927	0.5	28.5	3.11	398	7.4	N/A	15.2&

TABLE B-4
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
111500	10.35	7.14	0.927	0.5	28.3	3.09	399	7.4	N/A	15.2&
121500	10.35	7.14	0.928	0.5	28.0	3.07	399	7.4	N/A	15.3&
131500	10.35	7.14	0.930	0.5	27.8	3.04	399	7.4	N/A	15.2&
141500	10.36	7.14	0.930	0.5	27.8	3.04	400	7.4	N/A	15.3&
151500	10.35	7.14	0.931	0.5	27.6	3.02	401	7.4	N/A	15.2&
161500	10.35	7.14	0.933	0.5	27.6	3.02	401	7.4	N/A	15.2&
171500	10.36	7.14	0.934	0.5	27.4	2.99	401	7.4	N/A	15.2&
181500	10.38	7.14	0.936	0.5	27.3	2.99	401	7.4	N/A	15.1&
191500	10.35	7.14	0.940	0.5	27.4	2.99	401	7.4	N/A	15.1&
201500	10.36	7.14	0.949	0.5	27.4	2.99	400	7.4	N/A	15.1&
211500	10.35	7.14	0.948	0.5	27.1	2.97	398	7.4	N/A	15.1&
221500	10.36	7.14	0.948	0.5	27.1	2.97	398	7.4	N/A	15.0&
231500	10.35	7.14	0.950	0.5	26.9	2.94	398	7.4	N/A	15.0&
Date (MMDDYY): 100995										
001500	10.36	7.14	0.950	0.5	26.9	2.94	398	7.4	N/A	15.0&
011500	10.36	7.14	0.950	0.5	26.7	2.92	398	7.4	N/A	15.1&
021500	10.36	7.14	0.951	0.5	26.7	2.92	399	7.4	N/A	15.0&
031500	10.35	7.14	0.952	0.5	26.5	2.90	400	7.4	N/A	15.0&
041500	10.35	7.14	0.954	0.5	26.3	2.87	401	7.4	N/A	15.0&
051500	10.35	7.14	0.955	0.5	26.3	2.87	401	7.4	N/A	15.0&
061500	10.36	7.14	0.953	0.5	23.3	2.55	401	7.4	N/A	15.0&
071500	13.63	7.50	0.009	0.0	94.3	9.60	395	0.2	N/A	15.1&
081500	10.65	7.10	0.903	0.5	63.7	6.92	404	7.4	N/A	15.1&
091500	10.41	7.12	0.905	0.5	51.9	5.67	402	7.4	N/A	15.1&
101500	10.40	7.13	0.903	0.5	44.4	4.85	401	7.4	N/A	15.1&
111500	10.38	7.13	0.905	0.5	40.0	4.37	401	7.4	N/A	15.2&
121500	10.36	7.13	0.916	0.5	36.9	4.04	400	7.4	N/A	15.1&
131500	10.36	7.13	0.913	0.5	35.4	3.87	401	7.4	N/A	15.2&
141500	10.36	7.13	0.935	0.5	33.8	3.69	401	7.4	N/A	15.2&
151500	10.36	7.14	0.939	0.5	32.9	3.60	402	7.4	N/A	15.2&
161500	10.36	7.14	0.944	0.5	31.8	3.48	402	7.4	N/A	15.2&
171500	10.35	7.14	0.945	0.5	31.4	3.43	402	7.4	N/A	15.0&
181500	10.35	7.14	0.946	0.5	30.3	3.31	403	7.4	N/A	15.1&
191500	10.36	7.14	0.948	0.5	29.6	3.23	403	7.4	N/A	15.1&
201500	10.36	7.14	0.949	0.5	29.1	3.18	404	7.4	N/A	15.1&
211500	10.35	7.14	0.951	0.5	28.9	3.16	404	7.4	N/A	15.0&
221500	10.35	7.14	0.952	0.5	28.5	3.11	404	7.4	N/A	14.9&
231500	10.36	7.14	0.953	0.5	28.0	3.06	404	7.4	N/A	15.0&
Date (MMDDYY): 101095										
001500	10.36	7.14	0.953	0.5	27.6	3.01	404	7.4	N/A	15.0&
011500	10.36	7.14	0.954	0.5	27.4	2.99	405	7.4	N/A	15.0&
021500	10.36	7.14	0.954	0.5	26.7	2.92	405	7.4	N/A	15.0&
031500	10.36	7.14	0.954	0.5	26.0	2.84	405	7.4	N/A	14.9&
041500	10.35	7.14	0.955	0.5	25.6	2.80	405	7.4	N/A	15.0&
051500	10.36	7.14	0.957	0.5	26.0	2.84	405	7.4	N/A	15.0&
061500	10.36	7.14	0.956	0.5	24.9	2.72	406	7.4	N/A	15.0&
071500	10.38	7.14	0.917	0.5	27.6	3.01	405	7.4	N/A	14.9&
081500	10.36	7.14	0.948	0.5	26.7	2.92	404	7.4	N/A	15.0&

TABLE B-4
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
091500	10.38	7.14	0.951	0.5	25.6	2.79	404	7.4	N/A	15.1&
101500	10.36	7.14	0.951	0.5	25.1	2.75	405	7.4	N/A	15.0&
111500	10.36	7.14	0.952	0.5	24.9	2.72	406	7.4	N/A	15.1&
121500	10.36	7.14	0.954	0.5	24.2	2.65	407	7.4	N/A	15.1&
131500	10.36	7.14	0.956	0.5	23.6	2.58	408	7.4	N/A	15.1&
141500	10.36	7.17	0.956	0.5	22.7	2.48	408	7.4	N/A	15.1&
151500	10.36	7.17	0.956	0.5	22.2	2.43	409	7.4	N/A	15.1&
161500	10.36	7.17	0.957	0.5	21.3	2.33	409	7.4	N/A	15.1&
171500	10.35	7.16	0.957	0.5	21.1	2.31	409	7.4	N/A	15.1&
181500	10.36	7.16	0.958	0.5	20.5	2.24	409	7.4	N/A	15.0&
191500	10.36	7.16	0.959	0.5	19.8	2.16	409	7.4	N/A	15.0&
201500	10.36	7.16	0.959	0.5	19.6	2.14	409	7.4	N/A	15.0&
211500	10.36	7.16	0.959	0.5	19.3	2.11	410	7.4	N/A	15.1&
221500	10.36	7.16	0.960	0.5	19.1	2.09	410	7.4	N/A	15.0&
231500	10.36	7.16	0.960	0.5	18.9	2.07	410	7.4	N/A	14.9&
Date (MMDDYY): 101195										
001500	10.36	7.16	0.960	0.5	18.5	2.02	411	7.4	N/A	15.0&
011500	10.36	7.15	0.961	0.5	18.2	1.99	411	7.4	N/A	15.1&
021500	10.36	7.16	0.961	0.5	18.0	1.97	411	7.4	N/A	14.9&
031500	10.36	7.16	0.961	0.5	17.6	1.92	410	7.4	N/A	15.0&
041500	10.38	7.16	0.962	0.5	17.1	1.87	410	7.4	N/A	14.9&

Recovery finished at 101195 045050

TABLE B-5
WATER QUALITY IN WELL 31550 DURING STEP TEST 10/12/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 50STEP
Setup Date (MMDDYY): 101295
Setup Time (HHMMSS): 115852
Starting Date (MMDDYY): 101295
Starting Time (HHMMSS): 120000
Stopping Date (MMDDYY): 101395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, Salinity, Temperature compensated,A->Comp 1,A->Method 1
% Sat: 745.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Meters,Depth-100m
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101295										
120000	10.93	7.31	0.972	0.5	19.3	2.09	483	8.0	N/A	16.0&
121000	10.93	7.31	0.970	0.5	19.2	2.07	482	8.0	N/A	16.0&
122000	16.49	7.36	0.696	0.4	21.7	2.07	358	8.5	N/A	16.0&
123000	14.67	7.57	0.677	0.3	35.3	3.51	275	8.5	N/A	16.0&
124000	12.09	7.43	0.666	0.3	10.8	1.14	172	8.6	N/A	16.0&
125000	11.96	7.43	0.668	0.3	7.0	0.74	159	8.6	N/A	16.0&
130000	11.93	7.43	0.668	0.3	6.3	0.67	153	8.5	N/A	16.0&
131000	11.96	7.43	0.666	0.3	6.0	0.63	148	8.6	N/A	16.0&
132000	11.96	7.43	0.666	0.3	5.8	0.61	145	8.6	N/A	15.9&
133000	11.98	7.39	0.789	0.4	7.7	0.81	158	8.0	N/A	16.0&
134000	11.98	7.40	0.783	0.4	9.7	1.02	161	8.0	N/A	16.0&
135000	11.57	7.43	0.666	0.3	9.3	0.99	138	9.8	N/A	16.0&
140000	11.50	7.42	0.667	0.3	5.5	0.59	135	9.8	N/A	15.9&
141000	11.50	7.42	0.667	0.3	5.0	0.54	134	9.8	N/A	15.9&
142000	11.50	7.42	0.666	0.3	4.9	0.52	133	9.8	N/A	15.9&
143000	11.50	7.42	0.665	0.3	4.7	0.50	132	9.8	N/A	15.9&
144000	11.50	7.42	0.666	0.3	4.5	0.48	131	9.8	N/A	15.9&
145000	11.45	7.41	0.666	0.3	14.8	1.58	138	10.8	N/A	16.0&
150000	11.42	7.41	0.667	0.3	5.9	0.63	132	10.8	N/A	16.0&
151000	11.42	7.41	0.666	0.3	6.1	0.65	131	10.8	N/A	15.9&
152000	11.43	7.41	0.665	0.3	7.0	0.74	133	10.9	N/A	15.9&
153000	11.42	7.42	0.667	0.3	5.6	0.59	128	10.9	N/A	15.9&

TABLE B-5
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
154000	11.41	7.43	0.665	0.3	2.6	0.28	122	10.9	N/A	15.8&
155000	11.42	7.40	0.714	0.4	1.9	0.20	142	8.3	N/A	15.9&
160000	11.41	7.44	0.722	0.4	3.0	0.32	131	8.0	N/A	15.8&
161000	11.41	7.44	0.720	0.4	1.4	0.15	130	8.0	N/A	15.8&
162000	11.42	7.44	0.718	0.4	1.2	0.13	131	8.0	N/A	15.8&
163000	17.00	7.50	0.010	0.0	80.2	7.60	246	0.1	N/A	15.8&

TABLE B-6
WATER QUALITY IN WELL 31551 DURING STEP TEST 10/12/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: STEP51
Setup Date (MMDDYY): 101295
Setup Time (HHMMSS): 115415
Starting Date (MMDDYY): 101295
Starting Time (HHMMSS): 115500
Stopping Date (MMDDYY): 101295
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, Salinity, Temperature compensated,A->Comp 1,A->Method 1
% Sat: 745.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Feet,Level
Turbidity: Neph only,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101295										
115500	10.79	7.16	1.098	0.6	29.3	3.16	468	2.29	N/A	15.8&
120500	10.79	7.16	1.097	0.6	29.1	3.15	468	2.29	N/A	15.9&
121500	10.79	7.16	1.097	0.6	28.9	3.13	468	2.29	N/A	16.0&
122500	10.79	7.16	1.036	0.5	31.7	3.43	468	2.30	N/A	15.9&
123500	10.79	7.16	1.040	0.5	33.9	3.67	468	2.30	N/A	15.9&
124500	10.79	7.16	1.041	0.5	34.3	3.71	469	2.31	N/A	15.9&
125500	10.79	7.16	1.041	0.5	33.8	3.65	469	2.30	N/A	15.9&
130500	10.79	7.16	1.039	0.5	34.1	3.69	470	2.31	N/A	15.9&
131500	10.79	7.16	1.040	0.5	34.1	3.69	470	2.31	N/A	15.9&
132500	10.79	7.16	1.042	0.5	34.6	3.74	469	2.31	N/A	15.9&
133500	10.79	7.15	1.062	0.6	33.9	3.67	468	2.29	N/A	15.9&
134500	10.79	7.16	1.050	0.6	34.1	3.69	465	2.34	N/A	15.9&
135500	10.78	7.16	1.051	0.6	36.2	3.92	467	2.34	N/A	15.9&
140500	10.78	7.15	1.054	0.6	36.7	3.97	468	2.34	N/A	15.9&
141500	10.78	7.15	1.056	0.6	36.9	3.99	469	2.35	N/A	15.9&
142500	10.78	7.15	1.058	0.6	37.0	4.01	470	2.35	N/A	15.8&
143500	10.78	7.15	1.059	0.6	37.4	4.04	471	2.35	N/A	15.8&
144500	10.78	7.15	1.061	0.6	37.7	4.08	471	2.35	N/A	15.8&
145500	10.78	7.15	1.063	0.6	37.5	4.06	471	2.38	N/A	15.8&
150500	10.78	7.15	1.064	0.6	37.9	4.10	472	2.38	N/A	15.8&
151500	10.78	7.15	1.064	0.6	38.2	4.13	472	2.38	N/A	15.7&
152500	10.78	7.15	1.062	0.6	38.3	4.15	473	2.38	N/A	15.8&
153500	10.78	7.14	1.059	0.6	38.0	4.11	473	2.38	N/A	15.8&
154500	10.78	7.14	1.057	0.6	37.2	4.03	474	2.40	N/A	15.8&
155500	10.79	7.14	1.062	0.6	34.8	3.76	472	2.31	N/A	15.8&
160500	10.79	7.14	1.070	0.6	34.9	3.78	472	2.30	N/A	15.7&
161500	10.79	7.14	1.071	0.6	34.6	3.74	473	2.30	N/A	15.8&

TABLE B-6
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
162500	10.79	7.14	1.072	0.6	33.9	3.67	473	2.29	N/A	15.8&
163500	10.79	7.15	1.072	0.6	33.3	3.60	473	2.29	N/A	15.8&
164500	10.79	7.15	1.072	0.6	31.4	3.39	473	2.29	N/A	15.8&
165500	10.79	7.15	1.072	0.6	31.8	3.44	473	2.29	N/A	15.8&
170500	10.79	7.15	1.072	0.6	32.0	3.46	474	2.29	N/A	15.7&
171500	10.79	7.15	1.072	0.6	31.5	3.41	474	2.29	N/A	15.7&
172500	10.79	7.15	1.072	0.6	31.4	3.39	474	2.29	N/A	15.7&
173500	10.79	7.16	1.069	0.6	0.0	0.00	474	2.28	N/A	15.7&
174500	10.79	7.15	1.071	0.6	39.1	4.23	474	2.28	N/A	15.7&
175500	10.79	7.15	1.071	0.6	39.8	4.30	474	2.28	N/A	15.7&
180500	10.79	7.15	1.073	0.6	39.8	4.30	474	2.28	N/A	15.7&
181500	10.79	7.15	1.072	0.6	31.0	3.36	474	2.28	N/A	15.7&
182500	10.79	7.15	1.072	0.6	30.4	3.29	474	2.28	N/A	15.7&

TABLE B-7
WATER QUALITY IN WELL 31552 DURING STEP TEST 10/12/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 52STEP
Setup Date (MMDDYY): 101295
Setup Time (HHMMSS): 115533
Starting Date (MMDDYY): 101295
Starting Time (HHMMSS): 120000
Stopping Date (MMDDYY): 101395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range,
TDS,Temperature compensated,A->Comp 1,A->Method 1
% Sat: 750.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Feet,Level
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101295										
120000	10.92	7.16	1.049	0.671	25.1	2.72	307	2.19	N/A	16.1&
121000	10.92	7.16	1.049	0.671	25.1	2.72	307	2.19	N/A	16.1&
122000	10.92	7.17	1.029	0.659	25.7	2.79	307	2.19	N/A	16.1&
123000	10.92	7.16	0.982	0.629	31.3	3.40	307	2.20	N/A	16.1&
124000	10.92	7.16	0.976	0.625	31.8	3.45	307	2.20	N/A	16.1&
125000	10.92	7.16	0.967	0.619	31.6	3.44	307	2.20	N/A	16.1&
130000	10.92	7.16	0.958	0.613	31.2	3.39	308	2.19	N/A	16.1&
131000	10.92	7.16	0.955	0.611	30.3	3.29	307	2.20	N/A	16.1&
132000	10.92	7.16	0.952	0.609	30.6	3.32	307	2.20	N/A	16.1&
133000	10.91	7.16	0.972	0.622	30.9	3.36	308	2.18	N/A	16.1&
134000	10.92	7.16	0.966	0.618	30.6	3.32	307	2.19	N/A	16.0&
135000	10.92	7.16	0.952	0.609	31.3	3.40	307	2.22	N/A	16.0&
140000	10.92	7.16	0.950	0.608	31.3	3.40	307	2.22	N/A	16.0&
141000	10.92	7.16	0.943	0.603	31.6	3.44	308	2.22	N/A	16.0&
142000	10.92	7.16	0.941	0.602	31.6	3.44	308	2.22	N/A	16.0&
143000	10.92	7.16	0.940	0.601	31.5	3.42	308	2.22	N/A	16.0&
144000	10.92	7.16	0.939	0.601	31.5	3.42	308	2.22	N/A	16.0&
145000	10.92	7.16	0.943	0.603	31.8	3.45	308	2.23	N/A	16.0&
150000	10.89	7.15	0.942	0.603	31.5	3.43	309	2.22	N/A	15.9&
151000	10.92	7.15	0.944	0.604	31.3	3.40	309	2.25	N/A	16.0&
152000	10.92	7.15	0.947	0.606	31.2	3.39	309	2.25	N/A	15.9&
153000	10.92	7.15	0.948	0.607	30.7	3.34	309	2.25	N/A	15.9&
154000	10.92	7.15	0.949	0.608	30.7	3.34	309	2.25	N/A	15.9&
155000	10.92	7.15	0.954	0.611	30.9	3.35	309	2.21	N/A	15.9&
160000	10.92	7.14	0.985	0.631	30.0	3.25	310	2.20	N/A	15.9&
161000	10.92	7.14	0.988	0.632	29.5	3.20	310	2.20	N/A	15.9&
162000	10.92	7.14	0.990	0.634	30.1	3.27	310	2.19	N/A	15.9&

TABLE B-7
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
163000	10.91	7.14	0.993	0.636	31.4	3.41	310	2.18	N/A	15.9&
164000	10.92	7.14	0.995	0.637	31.2	3.39	310	2.18	N/A	15.9&
165000	10.93	7.14	0.996	0.637	31.0	3.37	310	2.18	N/A	15.9&
170000	10.94	7.15	0.997	0.638	30.9	3.35	310	2.18	N/A	15.8&
171000	10.92	7.15	0.997	0.638	30.4	3.30	309	2.19	N/A	15.8&

TABLE B-8
WATER QUALITY IN WELL 31553 DURING STEP TEST 10/12/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: STEP53
Setup Date (MMDDYY): 101295
Setup Time (HHMMSS): 120918
Starting Date (MMDDYY): 101295
Starting Time (HHMMSS): 121000
Stopping Date (MMDDYY): 101395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, Salinity, Temperature compensated,A->Comp 1,A->Method 1
% Sat: 753.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Meters,Depth-100m
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101295										
121000	11.05	7.10	0.730	0.4	26.4	2.88	296	6.1	N/A	15.0&
122000	10.93	7.10	0.731	0.4	25.8	2.82	296	6.1	N/A	15.1&
123000	10.85	7.09	0.732	0.4	26.3	2.87	296	6.1	N/A	15.0&
124000	10.77	7.10	0.731	0.4	25.6	2.80	297	6.1	N/A	15.1&
125000	10.74	7.09	0.730	0.4	24.3	2.66	298	6.1	N/A	15.1&
130000	10.70	7.10	0.731	0.4	24.1	2.65	298	6.1	N/A	15.1&
131000	10.67	7.08	0.732	0.4	23.4	2.57	299	6.1	N/A	15.1&
132000	10.65	7.09	0.732	0.4	24.2	2.66	299	6.1	N/A	15.2&
133000	10.64	7.09	0.735	0.4	23.8	2.62	299	6.1	N/A	15.2&
134000	10.62	7.08	0.732	0.4	24.6	2.70	300	6.1	N/A	15.2&
135000	10.60	7.09	0.732	0.4	24.6	2.71	300	6.1	N/A	15.2&
140000	10.60	7.09	0.740	0.4	22.9	2.52	300	6.1	N/A	15.2&
141000	10.59	7.09	0.746	0.4	22.7	2.50	300	6.1	N/A	15.2&
142000	10.59	7.08	0.743	0.4	22.3	2.46	300	6.1	N/A	15.2&
143000	10.57	7.07	0.734	0.4	21.6	2.37	300	6.1	N/A	15.2&
144000	10.57	7.08	0.734	0.4	20.8	2.29	303	6.1	N/A	15.2&
145000	10.57	7.07	0.734	0.4	21.4	2.35	309	6.2	N/A	15.1&
150000	10.57	7.07	0.737	0.4	21.2	2.33	309	6.2	N/A	15.2&
151000	10.56	7.07	0.739	0.4	20.4	2.25	307	6.2	N/A	15.2&
152000	10.56	7.06	0.741	0.4	20.6	2.27	306	6.2	N/A	15.2&
153000	10.56	7.06	0.741	0.4	22.2	2.44	306	6.2	N/A	15.2&
154000	10.56	7.06	0.738	0.4	21.8	2.40	306	6.2	N/A	15.2&
155000	10.56	7.06	0.733	0.4	21.2	2.33	306	6.2	N/A	15.2&
160000	10.56	7.07	0.717	0.4	21.4	2.35	306	6.2	N/A	15.2&
161000	10.56	7.08	0.718	0.4	20.4	2.25	306	6.1	N/A	15.2&
162000	10.54	7.07	0.719	0.4	21.6	2.38	310	6.1	N/A	15.2&
163000	16.22	##.##	0.011	0.0	77.0	7.49	-423	0.2	N/A	15.1&

TABLE B-9
WATER QUALITY IN WELL 31555 DURING STEP TEST 10/12/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 55STEP
Setup Date (MMDDYY): 101295
Setup Time (HHMMSS): 121134
Starting Date (MMDDYY): 101295
Starting Time (HHMMSS): 121200
Stopping Date (MMDDYY): 101395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, Salinity, Temperature compensated,A->Comp 1,A->Method 1
% Sat: 745.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Meters,Depth-100m
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101295										
Late probe turn on at 101295 121134										
121200	10.38	7.16	0.962	0.5	15.6	1.70	415	7.4	N/A	15.9&
122200	10.38	7.16	0.936	0.5	15.3	1.68	415	7.4	N/A	16.0&
123200	10.36	7.16	0.913	0.5	15.3	1.68	415	7.4	N/A	16.0&
124200	10.36	7.16	0.910	0.5	16.5	1.80	415	7.4	N/A	16.0&
125200	10.36	7.16	0.907	0.5	17.3	1.90	416	7.4	N/A	16.0&
130200	10.36	7.16	0.908	0.5	18.5	2.02	416	7.4	N/A	16.0&
131200	10.36	7.16	0.909	0.5	19.3	2.11	416	7.4	N/A	15.9&
132200	10.36	7.16	0.908	0.5	19.8	2.16	416	7.4	N/A	15.9&
133200	10.36	7.16	0.913	0.5	20.7	2.26	417	7.4	N/A	15.9&
134200	10.36	7.16	0.912	0.5	21.3	2.33	417	7.5	N/A	15.9&
135200	10.36	7.16	0.910	0.5	23.3	2.55	417	7.5	N/A	15.9&
140200	10.38	7.16	0.910	0.5	24.7	2.70	417	7.5	N/A	15.9&
141200	10.36	7.16	0.910	0.5	24.7	2.70	417	7.5	N/A	15.9&
142200	10.36	7.16	0.910	0.5	24.7	2.70	417	7.5	N/A	15.9&
143200	10.36	7.16	0.910	0.5	24.7	2.70	417	7.5	N/A	15.8&
144200	10.36	7.16	0.910	0.5	24.5	2.67	418	7.5	N/A	15.8&
145200	10.36	7.16	0.910	0.5	24.5	2.67	418	7.6	N/A	15.9&
150200	10.36	7.16	0.910	0.5	24.5	2.67	418	7.6	N/A	15.8&
151200	10.35	7.16	0.910	0.5	24.5	2.68	418	7.6	N/A	15.8&
152200	10.36	7.16	0.910	0.5	24.5	2.67	418	7.6	N/A	15.9&
153200	10.36	7.16	0.909	0.5	24.2	2.65	418	7.6	N/A	15.9&
154200	10.36	7.16	0.909	0.5	24.2	2.65	418	7.6	N/A	15.8&
155200	10.36	7.16	0.908	0.5	24.2	2.65	419	7.5	N/A	15.8&

TABLE B-9
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
160200	10.40	7.14	0.902	0.5	24.0	2.62	419	7.4	N/A	15.8&
161200	10.40	7.14	0.908	0.5	25.3	2.77	419	7.4	N/A	15.8&
162200	10.41	7.14	0.911	0.5	25.1	2.74	419	7.4	N/A	15.8&
163200	10.40	7.14	0.916	0.5	24.4	2.67	419	7.4	N/A	15.8&
164200	10.40	7.14	0.917	0.5	23.3	2.55	419	7.4	N/A	15.8&
165200	10.40	7.14	0.916	0.5	22.9	2.50	419	7.4	N/A	15.8&
170200	10.39	7.14	0.917	0.5	22.6	2.47	419	7.4	N/A	15.7&
171200	10.38	7.14	0.918	0.5	22.0	2.40	419	7.4	N/A	15.8&

TABLE B-10
WATER QUALITY IN WELL 31550
DURING 72-HOUR CONSTANT RATE INJECTION TEST
INCLUDING RECOVERY, 10/13/95 THROUGH 10/17/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: CONT50
Setup Date (MMDDYY): 101395
Setup Time (HHMMSS): 103835
Starting Date (MMDDYY): 101395
Starting Time (HHMMSS): 105000
Stopping Date (MMDDYY): 101795
Stopping Time (HHMMSS): 120000
Interval (HHMMSS): 001000
Warmup: Disable

==> Follow Variable and Calibration Change(s) <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance,mS/cm,Salt,Auto range, Salinity, Temperature compensated,A->Comp 1,A->Method 1
% Sat: 745.0
DO: DO,LoFlow,Salinity compensated,Oxygen-26.7K
Depth/Level: Meters,Depth-100m
Turbidity: Ratio,Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101395										
105000	11.43	7.37	0.704	0.4	2.1	0.22	297	7.9	N/A	12.7
110000	11.42	7.37	0.706	0.4	2.3	0.24	297	7.9	N/A	12.6
111000	11.42	7.37	0.702	0.4	2.1	0.22	298	7.9	N/A	12.7
112000	11.43	7.40	0.667	0.3	3.5	0.37	132	9.9	N/A	12.7
113000	11.44	7.41	0.666	0.3	1.9	0.20	124	9.8	N/A	12.8
114000	11.45	7.42	0.666	0.3	1.9	0.20	122	9.9	N/A	12.8
115000	11.47	7.42	0.666	0.3	1.7	0.19	121	9.9	N/A	12.8
120000	11.47	7.42	0.667	0.3	1.7	0.19	121	9.9	N/A	12.6
121000	11.48	7.42	0.666	0.3	1.7	0.18	120	9.9	N/A	12.8
122000	11.48	7.42	0.665	0.3	1.9	0.20	120	9.9	N/A	12.8
123000	11.50	7.42	0.666	0.3	1.6	0.17	119	9.9	N/A	12.7
124000	11.50	7.42	0.665	0.3	1.7	0.18	120	9.9	N/A	12.7
125000	11.50	7.42	0.666	0.3	1.7	0.18	119	10.0	N/A	12.8
130000	11.50	7.42	0.667	0.3	1.7	0.18	120	10.0	N/A	12.7
131000	11.50	7.42	0.667	0.3	1.7	0.18	120	10.0	N/A	12.8
132000	11.50	7.42	0.667	0.3	1.7	0.18	120	10.0	N/A	12.8
133000	11.50	7.41	0.666	0.3	1.7	0.18	120	10.0	N/A	12.8
134000	11.50	7.41	0.667	0.3	1.7	0.18	120	10.0	N/A	12.8
135000	11.50	7.41	0.667	0.3	1.7	0.18	121	10.0	N/A	12.8
140000	11.50	7.41	0.667	0.3	1.6	0.17	121	10.1	N/A	12.7
141000	11.50	7.42	0.666	0.3	1.6	0.17	121	10.1	N/A	12.8
142000	11.50	7.42	0.666	0.3	1.6	0.17	121	10.1	N/A	12.8
143000	11.50	7.42	0.666	0.3	1.6	0.17	121	10.1	N/A	12.8
144000	11.50	7.42	0.666	0.3	1.6	0.17	121	10.1	N/A	12.8
145000	11.49	7.41	0.666	0.3	1.7	0.18	121	10.1	N/A	12.8

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
150000	11.50	7.42	0.665	0.3	1.6	0.17	122	10.1	N/A	12.7
151000	11.49	7.41	0.667	0.3	1.7	0.18	122	10.1	N/A	12.8
152000	11.48	7.41	0.666	0.3	1.7	0.18	122	10.1	N/A	12.9
153000	11.50	7.41	0.666	0.3	1.6	0.17	122	10.1	N/A	12.9
154000	11.47	7.41	0.666	0.3	1.6	0.17	122	10.2	N/A	12.9
155000	11.47	7.41	0.666	0.3	1.7	0.19	122	10.1	N/A	12.9
160000	11.44	7.41	0.667	0.3	1.7	0.19	123	10.1	N/A	12.7
161000	11.47	7.41	0.666	0.3	1.6	0.17	123	10.2	N/A	12.9
162000	11.47	7.41	0.666	0.3	1.6	0.17	123	10.2	N/A	12.9
Date (MMDDYY):	101395									
163000	11.44	7.41	0.667	0.3	1.6	0.17	123	10.2	N/A	12.9
164000	11.43	7.41	0.666	0.3	1.6	0.17	123	10.2	N/A	12.9
165000	11.42	7.41	0.666	0.3	1.6	0.17	124	10.2	N/A	12.9
170000	11.42	7.41	0.666	0.3	1.6	0.17	124	10.2	N/A	12.8
171000	11.42	7.41	0.666	0.3	1.6	0.17	123	10.2	N/A	12.8
172000	11.40	7.41	0.666	0.3	1.6	0.17	124	10.2	N/A	13.0
173000	11.40	7.41	0.666	0.3	1.6	0.17	124	10.2	N/A	12.9
174000	11.40	7.41	0.667	0.3	1.4	0.15	124	10.2	N/A	12.9
175000	11.40	7.41	0.666	0.3	1.4	0.15	124	10.2	N/A	12.9
180000	11.39	7.40	0.666	0.3	1.6	0.17	125	10.2	N/A	12.7
181000	11.37	7.40	0.666	0.3	1.7	0.19	125	10.2	N/A	12.8
182000	11.38	7.41	0.666	0.3	1.6	0.17	125	10.2	N/A	12.9
183000	11.38	7.40	0.666	0.3	1.6	0.17	125	10.2	N/A	12.8
184000	11.38	7.40	0.666	0.3	1.7	0.19	125	10.2	N/A	12.8
185000	21.75	8.55	0.012	0.0	47.9	4.12	171	11.2	N/A	12.8
190000	20.56	8.33	0.020	0.0	48.2	4.25	203	12.3	N/A	12.7
191000	20.25	8.21	0.026	0.0	48.7	4.32	218	11.8	N/A	12.8
192000	20.12	8.11	0.027	0.0	51.4	4.57	233	11.5	N/A	12.8
193000	11.52	7.41	0.666	0.3	68.6	7.31	117	9.9	N/A	12.8
194000	11.36	7.40	0.665	0.3	5.6	0.60	100	10.3	N/A	12.8
195000	11.38	7.40	0.665	0.3	2.8	0.30	101	10.3	N/A	12.8
200000	11.37	7.40	0.666	0.3	2.3	0.24	102	10.3	N/A	12.7
201000	11.37	7.41	0.665	0.3	2.1	0.22	102	10.3	N/A	12.8
202000	11.37	7.41	0.665	0.3	1.9	0.20	104	10.3	N/A	12.8
203000	11.37	7.41	0.666	0.3	1.7	0.19	105	10.4	N/A	12.8
204000	11.36	7.41	0.665	0.3	1.7	0.19	106	10.3	N/A	12.8
205000	11.37	7.41	0.665	0.3	1.6	0.17	106	10.3	N/A	12.8
210000	11.36	7.41	0.666	0.3	1.6	0.17	107	10.3	N/A	12.7
211000	11.37	7.42	0.665	0.3	1.7	0.19	108	10.4	N/A	12.8
212000	11.36	7.41	0.666	0.3	1.7	0.19	108	10.4	N/A	12.8
213000	11.37	7.42	0.665	0.3	1.6	0.17	109	10.4	N/A	15.9&
214000	11.37	7.42	0.665	0.3	1.6	0.17	109	10.5	N/A	15.9&
215000	11.36	7.41	0.665	0.3	1.7	0.19	110	10.5	N/A	16.0&
220000	11.36	7.42	0.665	0.3	1.6	0.17	111	10.5	N/A	15.7&
221000	11.37	7.42	0.665	0.3	1.6	0.17	111	10.6	N/A	15.8&
222000	11.37	7.42	0.665	0.3	1.6	0.17	111	10.6	N/A	15.8&
223000	11.37	7.42	0.665	0.3	1.6	0.17	112	10.6	N/A	15.8&
224000	11.37	7.42	0.665	0.3	1.6	0.17	112	10.6	N/A	15.8&
225000	11.37	7.42	0.665	0.3	1.6	0.17	112	10.6	N/A	15.8&
230000	11.36	7.42	0.666	0.3	1.7	0.19	113	10.6	N/A	15.8&

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
231000	11.37	7.42	0.665	0.3	1.6	0.17	113	10.7	N/A	15.8&
232000	11.37	7.42	0.665	0.3	1.6	0.17	114	10.7	N/A	15.8&
233000	11.37	7.42	0.665	0.3	1.6	0.17	114	10.7	N/A	15.8&
234000	11.37	7.42	0.665	0.3	1.6	0.17	114	10.7	N/A	15.8&
235000	11.37	7.42	0.665	0.3	1.6	0.17	115	10.7	N/A	15.8&
Date (MMDDYY): 101495										
000000	11.36	7.42	0.666	0.3	1.7	0.19	115	10.7	N/A	15.8&
001000	11.37	7.42	0.665	0.3	1.6	0.17	115	10.7	N/A	15.7&
002000	11.36	7.42	0.665	0.3	1.6	0.17	116	10.8	N/A	15.7&
003000	11.35	7.42	0.665	0.3	1.6	0.17	116	10.8	N/A	15.7&
004000	11.35	7.42	0.665	0.3	1.4	0.15	116	10.8	N/A	15.7&
005000	11.35	7.42	0.665	0.3	1.6	0.17	116	10.8	N/A	15.7&
010000	11.35	7.42	0.666	0.3	1.6	0.17	117	10.8	N/A	15.7&
011000	11.34	7.42	0.666	0.3	1.6	0.17	117	10.8	N/A	15.7&
012000	11.34	7.42	0.665	0.3	1.6	0.17	117	10.8	N/A	15.7&
013000	11.34	7.42	0.665	0.3	1.6	0.17	118	10.8	N/A	15.7&
014000	11.34	7.42	0.665	0.3	1.6	0.17	118	10.9	N/A	15.7&
015000	11.35	7.42	0.665	0.3	1.6	0.17	118	10.9	N/A	15.7&
020000	11.34	7.42	0.666	0.3	1.6	0.17	119	10.9	N/A	15.7&
021000	11.35	7.42	0.666	0.3	1.7	0.19	118	10.9	N/A	15.7&
022000	11.35	7.42	0.665	0.3	1.6	0.17	119	10.9	N/A	15.7&
023000	11.35	7.42	0.665	0.3	1.6	0.17	119	10.9	N/A	15.7&
024000	11.35	7.42	0.665	0.3	1.6	0.17	119	11.0	N/A	15.7&
025000	11.35	7.42	0.664	0.3	1.7	0.19	119	11.0	N/A	15.7&
030000	11.34	7.42	0.664	0.3	1.7	0.19	120	11.0	N/A	15.7&
031000	11.37	7.42	0.665	0.3	1.6	0.17	120	11.0	N/A	15.7&
032000	11.37	7.42	0.665	0.3	1.6	0.17	120	11.0	N/A	15.7&
033000	11.37	7.42	0.664	0.3	1.6	0.17	120	11.1	N/A	15.7&
034000	11.37	7.42	0.665	0.3	1.6	0.17	120	11.0	N/A	13.1
035000	11.37	7.42	0.664	0.3	1.6	0.17	121	11.1	N/A	13.0
040000	11.37	7.42	0.664	0.3	1.6	0.17	121	11.1	N/A	12.8
041000	11.35	7.42	0.665	0.3	1.6	0.17	121	11.1	N/A	12.8
042000	11.35	7.42	0.665	0.3	1.6	0.17	121	11.1	N/A	12.8
043000	11.35	7.42	0.665	0.3	1.6	0.17	121	11.1	N/A	12.8
044000	11.37	7.42	0.665	0.3	1.6	0.17	122	11.2	N/A	12.8
045000	11.37	7.42	0.666	0.3	1.6	0.17	122	11.2	N/A	12.6
050000	11.36	7.42	0.665	0.3	1.6	0.17	122	11.2	N/A	12.6
051000	11.35	7.42	0.665	0.3	1.6	0.17	122	11.2	N/A	12.7
052000	11.34	7.42	0.666	0.3	1.6	0.17	122	11.2	N/A	12.7
053000	11.35	7.42	0.665	0.3	1.6	0.17	122	11.3	N/A	12.7
054000	11.35	7.42	0.664	0.3	1.7	0.19	122	11.3	N/A	12.7
055000	11.35	7.42	0.665	0.3	1.6	0.17	122	11.3	N/A	12.7
060000	11.36	7.42	0.665	0.3	1.6	0.17	123	11.3	N/A	12.6
061000	11.34	7.42	0.664	0.3	1.7	0.19	123	11.3	N/A	12.6
062000	11.34	7.42	0.664	0.3	1.6	0.17	123	11.4	N/A	12.7
063000	11.32	7.42	0.664	0.3	1.7	0.19	123	11.4	N/A	12.8
064000	11.32	7.42	0.664	0.3	1.6	0.17	124	11.4	N/A	12.7
065000	11.30	7.42	0.664	0.3	1.6	0.17	124	11.4	N/A	12.7
070000	11.30	7.42	0.665	0.3	1.6	0.17	124	11.5	N/A	12.6

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
071000	11.29	7.42	0.664	0.3	1.6	0.17	124	11.4	N/A	12.6
072000	11.30	7.42	0.664	0.3	1.6	0.17	124	11.5	N/A	12.6
073000	11.30	7.42	0.664	0.3	1.6	0.17	124	11.5	N/A	12.7
074000	11.30	7.42	0.664	0.3	1.4	0.15	124	11.5	N/A	12.7
075000	11.30	7.42	0.664	0.3	1.6	0.17	125	11.6	N/A	12.6
080000	11.30	7.42	0.664	0.3	1.6	0.17	125	11.6	N/A	12.6
081000	17.12	8.27	0.022	0.0	48.6	4.59	188	44.2	N/A	12.5
082000	16.35	8.25	0.024	0.0	50.8	4.88	215	43.7	N/A	12.7
083000	11.30	7.43	0.663	0.3	9.4	1.01	98	11.7	N/A	12.7
084000	11.30	7.43	0.665	0.3	3.0	0.32	98	11.7	N/A	12.7
085000	11.30	7.43	0.665	0.3	2.1	0.22	99	11.7	N/A	12.6
090000	11.29	7.43	0.665	0.3	1.9	0.21	101	11.7	N/A	12.5
091000	11.30	7.44	0.664	0.3	1.7	0.19	102	11.8	N/A	12.6
092000	11.29	7.43	0.664	0.3	1.7	0.19	103	11.7	N/A	12.6
093000	11.29	7.44	0.664	0.3	1.6	0.17	104	11.8	N/A	12.6
094000	11.30	7.44	0.665	0.3	1.7	0.19	105	11.8	N/A	12.7
095000	11.29	7.44	0.664	0.3	1.7	0.19	106	11.8	N/A	12.7
100000	11.29	7.44	0.664	0.3	1.6	0.17	106	11.8	N/A	12.6
101000	11.29	7.44	0.664	0.3	1.7	0.19	107	11.8	N/A	12.7
102000	11.29	7.44	0.664	0.3	1.7	0.19	107	11.9	N/A	12.7
103000	11.30	7.44	0.663	0.3	1.7	0.19	108	11.9	N/A	12.7
104000	11.29	7.44	0.663	0.3	1.7	0.19	108	11.9	N/A	12.7
105000	11.29	7.44	0.665	0.3	1.6	0.17	109	11.9	N/A	12.7
110000	11.27	7.44	0.664	0.3	1.6	0.17	110	11.9	N/A	12.6
111000	11.29	7.44	0.663	0.3	1.6	0.17	110	11.9	N/A	12.7
112000	11.29	7.44	0.663	0.3	1.6	0.17	110	11.9	N/A	12.7
113000	11.29	7.44	0.664	0.3	1.7	0.19	111	12.0	N/A	12.7
114000	11.30	7.44	0.663	0.3	1.6	0.17	111	12.0	N/A	12.7
115000	11.30	7.44	0.663	0.3	1.6	0.17	112	12.0	N/A	12.7
120000	11.29	7.44	0.664	0.3	1.7	0.19	112	12.0	N/A	12.6
121000	11.29	7.44	0.664	0.3	1.7	0.19	113	12.0	N/A	12.7
122000	11.29	7.43	0.664	0.3	1.7	0.19	114	12.0	N/A	12.7
123000	11.29	7.44	0.664	0.3	1.7	0.19	114	12.0	N/A	12.7
124000	11.30	7.44	0.664	0.3	1.6	0.17	114	12.1	N/A	12.7
125000	11.30	7.44	0.663	0.3	1.7	0.19	114	12.2	N/A	12.7
130000	11.29	7.44	0.664	0.3	1.6	0.17	115	12.2	N/A	12.6
131000	11.30	7.44	0.663	0.3	1.6	0.17	115	12.2	N/A	12.6
132000	11.30	7.44	0.663	0.3	1.6	0.17	115	12.3	N/A	12.7
133000	11.30	7.44	0.663	0.3	1.6	0.17	115	12.3	N/A	12.7
134000	11.30	7.44	0.663	0.3	1.6	0.17	115	12.3	N/A	12.7
135000	11.32	7.44	0.663	0.3	1.6	0.17	116	12.3	N/A	12.7
140000	11.31	7.43	0.663	0.3	1.7	0.19	117	12.3	N/A	12.5
141000	11.30	7.44	0.663	0.3	1.6	0.17	116	12.3	N/A	12.6
142000	11.32	7.44	0.663	0.3	1.6	0.17	117	12.3	N/A	12.7
143000	11.32	7.44	0.663	0.3	1.6	0.17	117	12.3	N/A	12.7
144000	11.31	7.43	0.663	0.3	1.6	0.17	118	12.4	N/A	12.7
145000	11.32	7.44	0.663	0.3	1.6	0.17	118	12.3	N/A	12.7
150000	11.31	7.43	0.663	0.3	1.6	0.17	118	12.4	N/A	12.6
151000	11.32	7.44	0.663	0.3	1.7	0.19	118	12.4	N/A	12.6
152000	11.34	7.43	0.663	0.3	1.6	0.17	118	12.4	N/A	12.7
153000	11.37	7.44	0.663	0.3	1.6	0.17	118	12.4	N/A	12.6

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
154000	11.40	7.44	0.663	0.3	1.7	0.19	118	12.4	N/A	12.7
155000	11.36	7.43	0.663	0.3	1.6	0.17	119	12.5	N/A	12.7
160000	11.34	7.43	0.663	0.3	1.6	0.17	119	12.5	N/A	12.6
161000	11.35	7.44	0.663	0.3	1.6	0.17	119	12.5	N/A	12.7
162000	11.34	7.44	0.664	0.3	1.6	0.17	119	12.5	N/A	12.7
163000	11.35	7.44	0.664	0.3	1.6	0.17	120	12.5	N/A	12.6
164000	11.32	7.44	0.663	0.3	1.4	0.15	120	12.5	N/A	12.7
165000	11.31	7.43	0.663	0.3	1.7	0.19	121	12.5	N/A	12.7
170000	11.31	7.43	0.664	0.3	1.7	0.19	121	12.5	N/A	12.6
171000	11.32	7.44	0.663	0.3	1.6	0.17	121	12.6	N/A	12.7
172000	11.32	7.44	0.663	0.3	1.6	0.17	121	12.6	N/A	12.7
173000	11.32	7.44	0.663	0.3	1.4	0.15	121	12.6	N/A	12.7
174000	11.32	7.44	0.663	0.3	1.4	0.15	121	12.6	N/A	12.7
175000	11.30	7.44	0.662	0.3	1.6	0.17	122	12.7	N/A	12.7
180000	11.29	7.43	0.664	0.3	1.6	0.17	122	12.6	N/A	12.6
181000	11.30	7.44	0.662	0.3	1.4	0.15	122	12.7	N/A	12.7
182000	11.29	7.44	0.662	0.3	1.6	0.17	122	12.7	N/A	12.7
183000	11.27	7.43	0.663	0.3	1.6	0.17	123	12.7	N/A	12.7
184000	11.29	7.44	0.662	0.3	1.4	0.15	122	12.8	N/A	12.7
185000	11.29	7.44	0.662	0.3	1.4	0.15	123	12.8	N/A	12.7
190000	11.27	7.43	0.663	0.3	1.6	0.17	124	12.7	N/A	12.6
191000	11.29	7.44	0.662	0.3	1.6	0.17	123	12.8	N/A	12.7
192000	10.63	7.61	0.018	0.0	65.0	7.09	211	0.5	N/A	12.7
193000	12.65	7.42	0.019	0.0	54.6	5.68	274	0.5	N/A	12.7
194000	12.01	7.51	0.020	0.0	54.3	5.74	283	0.4	N/A	12.7
195000	11.29	7.52	0.663	0.3	59.4	6.37	133	13.0	N/A	12.7
200000	11.27	7.46	0.663	0.3	4.7	0.51	112	13.0	N/A	12.6
201000	11.27	7.46	0.663	0.3	2.4	0.26	111	13.0	N/A	12.8
202000	11.27	7.46	0.663	0.3	1.9	0.21	111	13.0	N/A	12.7
203000	11.27	7.46	0.663	0.3	1.6	0.17	111	13.0	N/A	12.7
204000	11.26	7.46	0.664	0.3	1.4	0.15	111	13.0	N/A	12.7
205000	11.27	7.46	0.663	0.3	1.4	0.15	111	13.0	N/A	12.7
210000	11.26	7.46	0.665	0.3	1.2	0.13	111	13.0	N/A	12.6
211000	11.27	7.46	0.663	0.3	1.4	0.15	111	13.1	N/A	12.6
212000	11.27	7.46	0.664	0.3	1.4	0.15	111	13.0	N/A	12.7
213000	11.27	7.46	0.663	0.3	1.2	0.13	111	13.1	N/A	12.7
214000	11.27	7.46	0.663	0.3	1.4	0.15	111	13.1	N/A	15.7&
215000	11.27	7.46	0.663	0.3	1.6	0.17	111	13.1	N/A	15.6&
220000	11.26	7.46	0.664	0.3	1.6	0.17	112	13.1	N/A	15.6&
221000	11.27	7.46	0.663	0.3	1.4	0.15	112	13.1	N/A	15.6&
222000	11.27	7.46	0.663	0.3	1.6	0.17	112	13.1	N/A	15.6&
223000	11.25	7.46	0.664	0.3	1.6	0.17	112	13.1	N/A	15.6&
224000	11.25	7.46	0.664	0.3	1.4	0.15	112	13.1	N/A	15.7&
225000	11.24	7.46	0.664	0.3	1.6	0.17	113	13.1	N/A	15.6&
230000	11.25	7.46	0.664	0.3	1.4	0.15	113	13.2	N/A	15.6&
231000	11.25	7.46	0.664	0.3	1.4	0.15	113	13.2	N/A	15.6&
232000	11.24	7.46	0.664	0.3	1.6	0.17	113	13.2	N/A	15.6&
233000	11.25	7.46	0.663	0.3	1.6	0.17	113	13.2	N/A	15.6&
234000	11.24	7.46	0.664	0.3	1.4	0.15	113	13.2	N/A	15.5&
235000	11.24	7.46	0.665	0.3	1.4	0.15	114	13.3	N/A	15.6&

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY):	101595									
000000	11.22	7.46	0.664	0.3	1.6	0.17	114	13.2	N/A	15.5&
001000	11.22	7.46	0.664	0.3	1.6	0.17	115	13.3	N/A	15.5&
002000	11.24	7.46	0.664	0.3	1.6	0.17	114	13.3	N/A	15.5&
003000	11.22	7.46	0.663	0.3	1.6	0.17	114	13.3	N/A	15.5&
004000	11.24	7.46	0.664	0.3	1.4	0.15	115	13.3	N/A	15.5&
005000	11.22	7.46	0.664	0.3	1.4	0.15	115	13.3	N/A	15.4&
010000	11.24	7.46	0.664	0.3	1.4	0.15	115	13.3	N/A	15.5&
011000	11.22	7.46	0.665	0.3	1.4	0.15	115	13.3	N/A	15.5&
012000	11.22	7.46	0.663	0.3	1.4	0.15	115	13.4	N/A	15.5&
013000	11.22	7.46	0.663	0.3	1.4	0.15	115	13.4	N/A	15.5&
014000	11.21	7.46	0.664	0.3	1.6	0.17	116	13.4	N/A	15.5&
015000	11.22	7.46	0.663	0.3	1.6	0.17	115	13.4	N/A	15.5&
020000	11.21	7.46	0.663	0.3	1.6	0.17	116	13.4	N/A	15.4&
021000	11.21	7.46	0.663	0.3	1.6	0.17	117	13.4	N/A	15.5&
022000	11.22	7.46	0.663	0.3	1.6	0.17	116	13.4	N/A	15.5&
023000	11.22	7.46	0.663	0.3	1.6	0.17	116	13.5	N/A	15.4&
024000	11.22	7.46	0.663	0.3	1.6	0.17	116	13.5	N/A	15.5&
025000	11.22	7.46	0.663	0.3	1.4	0.15	116	13.5	N/A	15.4&
030000	11.21	7.46	0.663	0.3	1.4	0.15	117	13.5	N/A	15.4&
031000	11.22	7.46	0.663	0.3	1.6	0.17	117	13.5	N/A	15.4&
032000	11.22	7.46	0.664	0.3	1.4	0.15	117	13.5	N/A	15.4&
033000	11.19	7.46	0.662	0.3	7.4	0.79	124	11.9	N/A	15.4&
034000	11.16	7.43	0.661	0.3	18.1	1.95	131	11.8	N/A	15.4&
035000	11.16	7.43	0.660	0.3	27.8	2.98	135	11.7	N/A	15.4&
040000	11.16	7.43	0.660	0.3	20.0	2.15	132	12.0	N/A	15.4&
041000	11.29	7.45	0.671	0.3	25.7	2.75	181	11.6	N/A	15.4&
042000	11.29	7.51	0.672	0.3	48.6	5.21	178	12.1	N/A	15.4&
043000	11.30	7.55	0.672	0.3	63.9	6.85	179	12.3	N/A	15.4&
044000	11.32	7.54	0.674	0.3	68.4	7.33	162	12.5	N/A	15.4&
045000	11.34	7.53	0.673	0.3	66.0	7.06	160	12.6	N/A	15.4&
050000	11.32	7.50	0.674	0.3	64.1	6.86	157	12.7	N/A	15.4&
051000	11.34	7.49	0.673	0.3	63.5	6.80	157	12.8	N/A	15.3&
052000	11.34	7.47	0.674	0.3	60.7	6.50	158	12.8	N/A	15.4&
053000	11.34	7.45	0.675	0.3	54.3	5.81	157	13.3	N/A	15.4&
054000	11.38	7.45	0.674	0.3	51.0	5.45	157	13.8	N/A	15.5&
055000	11.38	7.44	0.674	0.3	50.7	5.42	157	13.9	N/A	15.4&
060000	11.27	7.41	0.658	0.3	54.6	5.85	164	14.1	N/A	15.3&
061000	11.24	7.39	0.659	0.3	65.3	7.01	165	14.2	N/A	15.3&
062000	11.22	7.40	0.659	0.3	77.1	8.27	162	14.2	N/A	15.4&
063000	11.22	7.42	0.659	0.3	77.1	8.27	161	14.2	N/A	15.3&
064000	11.20	7.42	0.659	0.3	76.8	8.25	159	14.2	N/A	15.3&
065000	11.20	7.43	0.659	0.3	75.4	8.10	159	14.2	N/A	15.3&
070000	11.19	7.43	0.659	0.3	74.3	7.97	159	14.1	N/A	15.3&
071000	11.20	7.43	0.658	0.3	72.6	7.79	158	14.2	N/A	15.3&
072000	13.76	8.26	0.014	0.0	60.3	6.13	236	10.9	N/A	15.3&
073000	11.82	8.26	0.015	0.0	51.2	5.43	275	11.2	N/A	13.1
074000	10.54	8.20	0.017	0.0	50.0	5.46	293	11.5	N/A	12.8
075000	7.88	7.43	0.008	0.0	55.1	6.41	341	0.1	N/A	12.8
080000	11.20	7.43	0.660	0.3	59.3	6.36	131	14.4	N/A	12.8
081000	11.20	7.44	0.660	0.3	57.4	6.16	132	14.4	N/A	12.9

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
082000	11.20	7.44	0.660	0.3	54.2	5.82	132	14.4	N/A	12.9
083000	11.22	7.44	0.660	0.3	51.5	5.53	132	14.4	N/A	12.9
084000	11.22	7.44	0.659	0.3	49.4	5.30	132	14.4	N/A	12.9
085000	11.22	7.44	0.660	0.3	47.0	5.04	132	14.4	N/A	12.9
090000	11.24	7.45	0.660	0.3	44.0	4.72	131	14.5	N/A	12.7
091000	11.25	7.45	0.659	0.3	40.4	4.34	130	14.5	N/A	12.9
092000	11.25	7.45	0.660	0.3	38.0	4.07	130	14.5	N/A	12.9
093000	11.27	7.45	0.659	0.3	35.7	3.82	129	14.5	N/A	12.8
094000	11.27	7.45	0.659	0.3	33.9	3.64	128	14.5	N/A	12.8
095000	11.29	7.45	0.659	0.3	31.5	3.37	128	14.5	N/A	12.9
100000	11.27	7.45	0.659	0.3	30.4	3.26	128	14.5	N/A	12.6
101000	11.30	7.45	0.659	0.3	30.4	3.26	128	14.5	N/A	12.8
102000	11.32	7.45	0.659	0.3	30.0	3.21	128	14.5	N/A	12.8
103000	11.32	7.45	0.659	0.3	29.3	3.14	128	14.5	N/A	13.0
104000	11.32	7.44	0.659	0.3	28.5	3.05	128	14.5	N/A	12.9
105000	11.34	7.45	0.659	0.3	27.2	2.91	127	14.5	N/A	12.8
110000	11.35	7.45	0.658	0.3	26.3	2.82	127	14.5	N/A	12.7
111000	11.34	7.45	0.659	0.3	25.3	2.71	127	14.3	N/A	12.8
112000	11.37	7.45	0.659	0.3	24.4	2.61	127	14.3	N/A	12.9
113000	11.37	7.45	0.658	0.3	23.5	2.52	126	14.3	N/A	12.8
114000	11.37	7.45	0.659	0.3	26.5	2.83	128	13.8	N/A	12.8
115000	11.38	7.45	0.658	0.3	26.1	2.79	128	12.9	N/A	12.8
120000	11.38	7.45	0.658	0.3	23.5	2.51	128	13.5	N/A	12.7
121000	11.38	7.46	0.659	0.3	23.7	2.53	126	13.7	N/A	12.8
122000	11.38	7.46	0.659	0.3	19.2	2.05	123	13.8	N/A	12.8
123000	11.39	7.46	0.659	0.3	18.5	1.97	124	13.8	N/A	12.8
124000	11.42	7.45	0.659	0.3	17.6	1.88	125	13.9	N/A	12.8
125000	11.42	7.45	0.658	0.3	16.9	1.80	125	13.9	N/A	12.8
130000	11.41	7.45	0.659	0.3	16.5	1.77	125	13.9	N/A	12.7
131000	11.41	7.44	0.658	0.3	16.4	1.75	125	13.9	N/A	12.8
132000	11.41	7.44	0.659	0.3	16.0	1.71	125	13.9	N/A	12.8
133000	11.43	7.44	0.658	0.3	15.5	1.65	125	13.9	N/A	12.8
134000	11.43	7.44	0.658	0.3	15.3	1.63	125	13.9	N/A	12.8
135000	11.41	7.44	0.658	0.3	15.1	1.62	126	13.9	N/A	12.8
140000	11.41	7.44	0.658	0.3	14.6	1.56	125	13.9	N/A	12.7
141000	11.42	7.44	0.658	0.3	14.1	1.50	125	14.0	N/A	12.8
142000	11.42	7.44	0.659	0.3	13.7	1.47	125	14.0	N/A	12.8
143000	11.41	7.44	0.658	0.3	13.7	1.47	126	14.0	N/A	12.8
144000	11.42	7.44	0.658	0.3	13.6	1.45	125	14.0	N/A	12.8
145000	11.42	7.44	0.658	0.3	13.2	1.41	125	14.9	N/A	12.8
150000	11.39	7.44	0.659	0.3	13.1	1.40	126	14.7	N/A	12.7
151000	11.40	7.44	0.659	0.3	12.9	1.38	125	14.9	N/A	12.8
152000	11.40	7.43	0.659	0.3	12.5	1.34	128	14.8	N/A	12.8
153000	11.38	7.43	0.659	0.3	17.9	1.92	129	15.0	N/A	12.9
154000	11.36	7.43	0.659	0.3	13.3	1.42	128	14.7	N/A	12.8
155000	11.36	7.43	0.658	0.3	16.9	1.81	129	15.2	N/A	12.8
160000	11.36	7.43	0.658	0.3	11.9	1.27	128	14.6	N/A	12.7
161000	11.37	7.44	0.658	0.3	15.9	1.70	128	15.1	N/A	12.8
162000	11.34	7.43	0.658	0.3	11.0	1.18	128	14.8	N/A	12.8
163000	11.34	7.44	0.659	0.3	13.4	1.44	128	14.8	N/A	12.8

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
164000	11.34	7.43	0.659	0.3	12.4	1.33	129	15.1	N/A	12.8
165000	11.34	7.44	0.659	0.3	10.3	1.10	127	14.9	N/A	12.8
170000	11.34	7.44	0.658	0.3	12.6	1.34	128	14.9	N/A	12.9
171000	11.34	7.44	0.658	0.3	10.1	1.08	128	15.1	N/A	12.8
172000	11.34	7.44	0.659	0.3	9.6	1.03	127	14.8	N/A	12.8
173000	11.32	7.44	0.659	0.3	11.0	1.18	128	15.1	N/A	12.8
174000	11.32	7.44	0.658	0.3	8.9	0.95	128	15.1	N/A	12.8
175000	11.29	7.44	0.658	0.3	9.4	1.01	128	14.8	N/A	12.8
180000	11.29	7.44	0.659	0.3	9.4	1.01	128	15.3	N/A	12.8
181000	11.27	7.44	0.658	0.3	8.0	0.86	128	14.8	N/A	12.8
182000	11.29	7.44	0.658	0.3	9.3	0.99	128	15.1	N/A	12.8
183000	11.27	7.44	0.658	0.3	7.9	0.84	128	15.2	N/A	12.8
184000	11.27	7.44	0.658	0.3	7.9	0.84	128	14.8	N/A	12.8
185000	11.26	7.44	0.658	0.3	7.9	0.84	129	15.3	N/A	12.8
190000	11.25	7.44	0.659	0.3	7.0	0.75	128	14.9	N/A	12.7
191000	11.16	7.44	0.012	0.0	19.3	2.08	200	0.1	N/A	12.8
192000	11.61	8.28	0.017	0.0	63.0	6.71	206	2.9	N/A	12.8
193000	10.60	8.18	0.016	0.0	65.1	7.10	239	2.9	N/A	12.8
194000	8.85	7.95	0.008	0.0	67.7	7.70	268	0.2	N/A	12.8
195000	11.22	7.46	0.659	0.3	12.6	1.35	99	15.3	N/A	12.8
200000	11.21	7.46	0.659	0.3	8.1	0.87	100	15.5	N/A	12.7
201000	11.20	7.47	0.659	0.3	6.8	0.73	101	15.5	N/A	12.8
202000	11.20	7.47	0.659	0.3	6.7	0.72	102	15.2	N/A	12.7
203000	11.19	7.46	0.659	0.3	6.3	0.68	103	15.4	N/A	12.8
204000	11.20	7.47	0.659	0.3	6.1	0.66	104	14.9	N/A	12.8
205000	11.20	7.47	0.659	0.3	7.0	0.75	105	15.5	N/A	12.8
210000	11.20	7.47	0.659	0.3	6.0	0.64	105	14.9	N/A	12.7
211000	11.20	7.47	0.659	0.3	6.8	0.73	106	15.5	N/A	12.7
212000	11.19	7.47	0.659	0.3	5.4	0.58	107	15.2	N/A	12.7
213000	11.20	7.47	0.659	0.3	6.0	0.64	107	15.4	N/A	12.7
214000	11.20	7.47	0.659	0.3	5.3	0.56	108	15.6	N/A	15.5&
215000	11.20	7.47	0.658	0.3	5.3	0.56	108	15.3	N/A	15.5&
220000	11.20	7.47	0.660	0.3	4.6	0.49	108	15.5	N/A	15.4&
221000	11.19	7.47	0.659	0.3	4.6	0.49	109	15.5	N/A	15.4&
222000	11.19	7.47	0.659	0.3	4.4	0.47	109	15.2	N/A	15.5&
223000	11.18	7.46	0.659	0.3	4.4	0.47	110	15.6	N/A	15.4&
224000	11.19	7.46	0.659	0.3	4.4	0.47	110	15.1	N/A	15.4&
225000	11.19	7.46	0.658	0.3	4.2	0.45	111	15.5	N/A	15.4&
230000	11.18	7.46	0.659	0.3	4.0	0.43	111	15.4	N/A	15.3&
231000	11.19	7.46	0.658	0.3	4.2	0.45	111	15.3	N/A	15.4&
232000	11.19	7.46	0.659	0.3	3.5	0.38	111	15.6	N/A	15.4&
233000	11.19	7.46	0.658	0.3	4.0	0.43	112	15.1	N/A	15.4&
234000	11.18	7.46	0.658	0.3	3.5	0.38	112	15.6	N/A	15.4&
235000	11.19	7.46	0.659	0.3	3.7	0.40	112	15.3	N/A	15.3&
Date (MMDDYY): 101695										
000000	11.19	7.46	0.659	0.3	3.5	0.38	113	15.4	N/A	15.5&
001000	11.19	7.46	0.658	0.3	3.3	0.36	113	15.6	N/A	15.3&
002000	11.19	7.46	0.658	0.3	3.5	0.38	113	15.3	N/A	15.4&

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
003000	11.19	7.46	0.659	0.3	3.0	0.32	113	15.6	N/A	15.4&
004000	11.19	7.46	0.658	0.3	3.5	0.38	114	15.4	N/A	15.3&
005000	11.17	7.46	0.658	0.3	3.0	0.32	114	14.7	N/A	15.3&
010000	11.16	7.46	0.659	0.3	3.2	0.34	114	15.0	N/A	15.3&
011000	11.19	7.46	0.659	0.3	3.3	0.36	115	15.8	N/A	15.3&
012000	11.17	7.47	0.658	0.3	4.2	0.45	115	14.7	N/A	15.3&
013000	11.19	7.46	0.658	0.3	3.9	0.41	116	15.7	N/A	15.3&
014000	11.19	7.46	0.658	0.3	2.8	0.30	116	15.5	N/A	15.2&
015000	11.19	7.46	0.659	0.3	3.9	0.41	116	15.5	N/A	15.3&
020000	11.17	7.46	0.658	0.3	3.0	0.32	116	15.5	N/A	15.1&
021000	11.19	7.46	0.658	0.3	2.5	0.26	116	15.6	N/A	15.3&
022000	11.17	7.46	0.658	0.3	2.6	0.28	116	15.6	N/A	15.3&
023000	11.17	7.46	0.658	0.3	2.3	0.25	117	15.6	N/A	15.3&
024000	11.19	7.46	0.658	0.3	2.3	0.25	117	15.6	N/A	15.1&
025000	11.17	7.46	0.658	0.3	2.3	0.25	117	15.6	N/A	15.2&
030000	11.18	7.46	0.658	0.3	2.3	0.25	118	15.6	N/A	15.2&
031000	11.16	7.46	0.658	0.3	2.3	0.25	118	15.6	N/A	15.2&
032000	11.16	7.46	0.659	0.3	2.3	0.25	118	15.6	N/A	15.2&
033000	11.16	7.46	0.658	0.3	2.3	0.25	118	15.6	N/A	15.2&
034000	11.17	7.46	0.659	0.3	2.1	0.23	118	15.6	N/A	15.2&
035000	11.16	7.46	0.658	0.3	2.1	0.23	119	15.6	N/A	15.2&
040000	11.16	7.46	0.658	0.3	2.1	0.23	119	15.7	N/A	15.1&
041000	11.17	7.46	0.658	0.3	2.1	0.23	119	15.7	N/A	15.2&
042000	11.16	7.46	0.659	0.3	2.1	0.23	120	15.7	N/A	15.2&
043000	11.16	7.46	0.658	0.3	2.1	0.23	120	15.8	N/A	15.2&
044000	11.16	7.46	0.659	0.3	1.9	0.21	120	15.8	N/A	15.2&
045000	11.17	7.46	0.658	0.3	1.9	0.21	120	15.7	N/A	15.2&
050000	11.17	7.46	0.658	0.3	1.9	0.21	120	15.7	N/A	15.2&
051000	11.17	7.46	0.658	0.3	1.9	0.21	121	15.8	N/A	13.1
052000	11.17	7.46	0.658	0.3	1.8	0.19	121	15.8	N/A	13.0
053000	11.17	7.46	0.658	0.3	1.8	0.19	121	15.8	N/A	13.0
054000	11.17	7.46	0.658	0.3	1.8	0.19	122	15.8	N/A	13.0
055000	11.17	7.46	0.658	0.3	1.8	0.19	122	15.8	N/A	12.9
060000	11.16	7.46	0.659	0.3	1.8	0.19	122	15.8	N/A	12.8
061000	11.17	7.46	0.658	0.3	1.6	0.17	122	15.8	N/A	12.9
062000	11.17	7.46	0.658	0.3	1.6	0.17	122	15.8	N/A	12.9
063000	11.17	7.46	0.658	0.3	1.6	0.17	123	15.8	N/A	12.9
064000	11.17	7.46	0.658	0.3	1.6	0.17	123	15.8	N/A	12.9
065000	11.17	7.46	0.658	0.3	1.6	0.17	123	15.8	N/A	12.9
070000	11.17	7.46	0.658	0.3	1.4	0.15	123	15.9	N/A	12.8
071000	11.17	7.46	0.658	0.3	1.4	0.15	123	15.9	N/A	12.9
072000	11.16	7.46	0.658	0.3	1.6	0.17	124	15.8	N/A	12.9
073000	8.52	7.50	0.011	0.0	59.5	6.82	228	0.7	N/A	12.9
074000	5.98	7.63	0.011	0.0	57.6	7.03	267	0.6	N/A	12.9
075000	4.31	7.65	0.011	0.0	57.5	7.33	286	0.5	N/A	12.9
080000	3.14	7.64	0.009	0.0	57.6	7.57	297	0.5	N/A	12.7
081000	11.16	7.49	0.660	0.3	5.8	0.62	114	16.1	N/A	12.7
082000	11.17	7.49	0.659	0.3	2.8	0.30	113	16.1	N/A	12.8
083000	11.17	7.49	0.659	0.3	1.9	0.21	112	16.1	N/A	12.9

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
084000	11.19	7.49	0.659	0.3	1.9	0.21	113	16.1	N/A	12.8
085000	11.18	7.49	0.659	0.3	1.8	0.19	113	16.1	N/A	12.8
090000	11.19	7.49	0.659	0.3	1.6	0.17	113	16.1	N/A	12.6
091000	11.22	7.49	0.659	0.3	1.6	0.17	113	16.1	N/A	12.8
092000	11.22	7.49	0.659	0.3	1.6	0.17	113	16.1	N/A	12.8
093000	11.24	7.49	0.660	0.3	1.6	0.17	114	16.2	N/A	12.8
094000	11.25	7.49	0.659	0.3	1.4	0.15	114	16.2	N/A	12.8
095000	11.27	7.49	0.659	0.3	1.6	0.17	114	16.2	N/A	12.9
100000	11.27	7.48	0.659	0.3	1.6	0.17	115	16.1	N/A	12.6
101000	11.29	7.49	0.659	0.3	1.4	0.15	115	16.1	N/A	12.8
102000	11.30	7.49	0.659	0.3	1.4	0.15	115	16.1	N/A	12.8
103000	11.32	7.49	0.659	0.3	1.4	0.15	115	16.2	N/A	12.8
104000	11.32	7.49	0.659	0.3	1.6	0.17	115	16.2	N/A	12.9
105000	11.32	7.48	0.659	0.3	1.4	0.15	116	16.2	N/A	12.8
110000	11.35	7.49	0.659	0.3	1.4	0.15	116	16.2	N/A	12.7
111000	11.35	7.49	0.659	0.3	1.4	0.15	116	16.2	N/A	12.8
112000	11.36	7.48	0.659	0.3	1.4	0.15	117	16.2	N/A	12.8
113000	11.37	7.48	0.658	0.3	1.4	0.15	117	16.2	N/A	12.8
114000	11.37	7.48	0.659	0.3	1.4	0.15	118	16.1	N/A	12.8
115000	11.38	7.49	0.658	0.3	1.2	0.13	117	16.1	N/A	12.6
120000	11.37	7.48	0.660	0.3	1.4	0.15	118	16.1	N/A	12.6
121000	11.40	7.48	0.658	0.3	1.4	0.15	118	16.2	N/A	12.8
122000	11.39	7.48	0.659	0.3	1.6	0.17	118	16.2	N/A	12.8
123000	11.40	7.48	0.658	0.3	1.6	0.17	118	16.2	N/A	12.8
124000	11.40	7.48	0.658	0.3	1.4	0.15	118	16.2	N/A	12.8
125000	11.42	7.48	0.658	0.3	1.4	0.15	119	16.2	N/A	12.8
130000	11.41	7.48	0.658	0.3	1.4	0.15	119	16.2	N/A	12.7
131000	11.42	7.48	0.659	0.3	1.2	0.13	119	16.3	N/A	12.8
132000	11.42	7.48	0.658	0.3	1.2	0.13	120	16.3	N/A	12.8
133000	11.42	7.48	0.658	0.3	1.2	0.13	120	16.3	N/A	12.8
134000	11.42	7.48	0.658	0.3	1.2	0.13	120	16.3	N/A	12.8
135000	11.42	7.48	0.658	0.3	1.2	0.13	120	16.4	N/A	12.8
140000	11.42	7.48	0.657	0.3	1.2	0.13	121	16.4	N/A	12.7
141000	11.41	7.48	0.658	0.3	1.4	0.15	121	16.3	N/A	12.8
142000	11.42	7.48	0.659	0.3	1.2	0.13	121	16.4	N/A	12.8
143000	11.41	7.48	0.658	0.3	1.2	0.13	122	16.3	N/A	12.8
144000	11.40	7.48	0.658	0.3	1.2	0.13	122	16.3	N/A	12.8
145000	11.40	7.48	0.657	0.3	1.2	0.13	122	16.4	N/A	12.8
150000	11.39	7.48	0.659	0.3	1.4	0.15	123	16.4	N/A	12.7
151000	11.42	7.48	0.658	0.3	1.2	0.13	122	16.4	N/A	12.8
152000	11.39	7.48	0.658	0.3	1.2	0.13	123	16.3	N/A	12.8
153000	11.38	7.52	0.657	0.3	2.3	0.24	150	8.2	N/A	12.8
154000	11.38	7.51	0.656	0.3	1.6	0.17	166	8.1	N/A	12.8
155000	11.38	7.51	0.655	0.3	1.2	0.13	191	8.1	N/A	12.8
160000	11.37	7.52	0.657	0.3	1.4	0.15	211	8.1	N/A	12.7
161000	11.38	7.53	0.666	0.3	1.2	0.13	225	8.1	N/A	12.8
162000	11.39	7.53	0.689	0.4	1.2	0.13	237	8.1	N/A	12.8
163000	11.40	7.53	0.656	0.3	1.4	0.15	234	8.1	N/A	12.8
164000	11.39	7.52	0.664	0.3	6.1	0.65	214	8.1	N/A	12.8
165000	11.40	7.52	0.663	0.3	8.2	0.87	217	8.1	N/A	12.8
170000	11.39	7.52	0.687	0.4	7.8	0.84	234	8.1	N/A	12.7
171000	11.39	7.53	0.699	0.4	7.5	0.80	245	8.1	N/A	12.8

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
172000	11.40	7.54	0.698	0.4	7.3	0.78	252	8.1	N/A	12.8
173000	11.39	7.54	0.700	0.4	7.7	0.82	262	8.1	N/A	12.8
174000	11.39	7.54	0.698	0.4	7.7	0.82	270	8.1	N/A	12.8
175000	11.57	7.54	0.598	0.3	7.4	0.79	232	0.7	N/A	12.8
180000	17.73	8.37	0.017	0.0	51.5	4.80	224	51.7	N/A	12.7
181000	16.82	8.27	0.018	0.0	52.9	5.03	253	50.9	N/A	12.7
182000	11.63	7.57	0.653	0.3	28.6	3.04	173	8.1	N/A	12.8
183000	11.58	7.58	0.656	0.3	23.8	2.54	187	8.1	N/A	12.8
184000	11.53	7.58	0.670	0.3	22.7	2.42	199	8.1	N/A	12.8
185000	11.50	7.58	0.685	0.4	22.4	2.38	211	8.1	N/A	12.8
190000	11.47	7.58	0.698	0.4	21.9	2.33	225	8.0	N/A	12.7
191000	11.47	7.58	0.698	0.4	21.5	2.30	237	8.1	N/A	12.7
192000	11.45	7.58	0.698	0.4	21.5	2.30	247	8.1	N/A	12.8
193000	11.45	7.58	0.698	0.4	21.5	2.30	256	8.1	N/A	12.9
194000	11.43	7.58	0.697	0.4	21.5	2.30	264	8.1	N/A	12.8
195000	11.43	7.58	0.695	0.4	21.5	2.30	271	8.1	N/A	15.5&
200000	11.42	7.58	0.698	0.4	21.6	2.30	278	8.0	N/A	15.5&
201000	11.42	7.58	0.695	0.4	21.2	2.27	283	8.0	N/A	15.4&
202000	11.42	7.58	0.695	0.4	21.2	2.27	287	8.1	N/A	15.4&
203000	11.42	7.58	0.696	0.4	21.2	2.27	291	8.1	N/A	15.4&
204000	11.41	7.58	0.696	0.4	21.1	2.25	295	8.0	N/A	15.4&
205000	11.42	7.58	0.696	0.4	20.9	2.23	298	8.1	N/A	15.4&
210000	11.42	7.58	0.696	0.4	20.7	2.21	301	8.1	N/A	15.4&
211000	11.42	7.58	0.697	0.4	20.5	2.19	304	8.1	N/A	15.3&
212000	11.42	7.58	0.697	0.4	20.3	2.17	306	8.1	N/A	15.3&
213000	11.42	7.58	0.696	0.4	20.3	2.17	309	8.1	N/A	15.3&
214000	11.42	7.58	0.697	0.4	20.2	2.15	311	8.1	N/A	15.3&
215000	11.42	7.58	0.697	0.4	19.8	2.12	313	8.1	N/A	15.3&
220000	11.42	7.58	0.696	0.4	19.7	2.10	315	8.1	N/A	15.2&
221000	11.42	7.58	0.697	0.4	19.5	2.08	317	8.1	N/A	15.3&
222000	11.42	7.58	0.697	0.4	19.5	2.08	319	8.1	N/A	15.3&
223000	11.41	7.58	0.699	0.4	19.5	2.08	322	8.1	N/A	15.3&
224000	11.42	7.58	0.699	0.4	19.1	2.04	323	8.1	N/A	15.3&
225000	11.41	7.57	0.699	0.4	19.1	2.04	325	8.0	N/A	15.3&
230000	11.41	7.57	0.699	0.4	19.0	2.03	327	8.1	N/A	15.2&
231000	11.42	7.58	0.699	0.4	18.8	2.01	328	8.1	N/A	15.3&
232000	11.42	7.58	0.699	0.4	18.4	1.97	330	8.1	N/A	15.3&
233000	11.42	7.58	0.699	0.4	18.3	1.95	332	8.1	N/A	15.2&
234000	11.41	7.57	0.700	0.4	18.3	1.95	334	8.0	N/A	15.2&
235000	11.41	7.57	0.700	0.4	18.3	1.95	336	8.0	N/A	15.2&
Date (MMDDYY):	101795									
000000	11.41	7.57	0.701	0.4	18.1	1.93	337	8.0	N/A	15.2&
001000	11.42	7.57	0.700	0.4	17.7	1.89	338	8.1	N/A	15.2&
002000	11.42	7.57	0.700	0.4	17.6	1.88	340	8.1	N/A	15.3&
003000	11.41	7.57	0.700	0.4	17.9	1.91	342	8.0	N/A	15.2&
004000	11.42	7.57	0.700	0.4	17.6	1.88	343	8.1	N/A	15.3&
005000	11.41	7.57	0.701	0.4	17.4	1.86	345	8.0	N/A	15.3&
010000	11.42	7.57	0.701	0.4	17.2	1.84	346	8.1	N/A	15.2&

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
011000	11.41	7.57	0.700	0.4	17.4	1.86	348	8.0	N/A	15.2&
012000	11.42	7.57	0.700	0.4	17.0	1.82	350	8.1	N/A	15.2&
013000	11.42	7.57	0.700	0.4	17.2	1.84	351	8.1	N/A	15.2&
014000	11.42	7.57	0.700	0.4	17.6	1.88	353	8.1	N/A	15.2&
015000	11.41	7.57	0.700	0.4	17.6	1.88	356	8.0	N/A	15.1&
020000	11.41	7.57	0.700	0.4	17.1	1.82	357	8.0	N/A	15.1&
021000	11.42	7.57	0.701	0.4	16.7	1.78	359	8.1	N/A	15.1&
022000	11.42	7.57	0.700	0.4	16.7	1.78	360	8.1	N/A	15.2&
023000	11.41	7.57	0.700	0.4	16.7	1.78	363	8.0	N/A	15.2&
024000	11.41	7.57	0.701	0.4	16.7	1.78	365	8.0	N/A	15.2&
025000	11.42	7.57	0.702	0.4	16.5	1.76	366	8.1	N/A	15.1&
030000	11.42	7.57	0.703	0.4	16.5	1.76	368	8.1	N/A	15.1&
031000	11.42	7.57	0.702	0.4	16.3	1.75	369	8.1	N/A	15.1&
032000	11.42	7.57	0.702	0.4	16.3	1.75	371	8.1	N/A	15.1&
033000	11.42	7.57	0.703	0.4	16.2	1.73	373	8.1	N/A	15.1&
034000	11.42	7.57	0.702	0.4	16.2	1.73	375	8.1	N/A	15.0&
035000	11.42	7.57	0.703	0.4	16.0	1.71	376	8.1	N/A	15.1&
040000	11.42	7.57	0.704	0.4	16.2	1.73	378	8.1	N/A	15.1&
041000	11.42	7.57	0.704	0.4	16.0	1.71	380	8.1	N/A	15.1&
042000	11.41	7.57	0.703	0.4	16.2	1.73	382	8.0	N/A	15.1&
043000	11.42	7.57	0.704	0.4	15.8	1.69	383	8.1	N/A	15.1&
044000	11.42	7.57	0.705	0.4	15.5	1.65	385	8.1	N/A	15.1&
045000	11.42	7.57	0.704	0.4	15.5	1.65	386	8.1	N/A	15.1&
050000	11.42	7.57	0.704	0.4	15.3	1.63	388	8.1	N/A	15.1&
051000	11.42	7.57	0.705	0.4	15.1	1.62	390	8.1	N/A	15.1&
052000	11.42	7.57	0.705	0.4	15.0	1.60	392	8.1	N/A	15.1&
053000	11.42	7.57	0.704	0.4	15.0	1.60	393	8.1	N/A	15.1&
054000	11.42	7.57	0.706	0.4	15.0	1.60	394	8.1	N/A	15.1&
055000	11.42	7.57	0.705	0.4	15.0	1.60	396	8.1	N/A	15.1&
060000	11.42	7.57	0.706	0.4	15.0	1.60	396	8.1	N/A	15.1&
061000	11.41	7.57	0.705	0.4	15.1	1.62	398	8.0	N/A	15.1&
062000	11.42	7.57	0.707	0.4	15.0	1.60	399	8.1	N/A	15.1&
063000	11.42	7.57	0.707	0.4	14.8	1.58	400	8.1	N/A	15.1&
064000	11.41	7.57	0.706	0.4	14.8	1.58	402	8.1	N/A	15.1&
065000	11.41	7.56	0.706	0.4	14.4	1.54	403	8.1	N/A	15.1&
070000	11.42	7.57	0.706	0.4	13.7	1.47	405	8.1	N/A	15.1&
071000	11.42	7.56	0.706	0.4	13.4	1.43	406	8.1	N/A	15.1&
072000	11.42	7.56	0.705	0.4	12.9	1.37	408	8.1	N/A	15.1&
073000	11.42	7.56	0.704	0.4	12.3	1.32	410	8.1	N/A	15.1&
074000	11.41	7.56	0.705	0.4	12.2	1.30	412	8.0	N/A	15.1&
075000	11.41	7.56	0.705	0.4	11.8	1.26	414	8.0	N/A	15.1&
080000	11.42	7.56	0.706	0.4	11.3	1.21	415	8.1	N/A	15.2&
081000	11.42	7.56	0.705	0.4	13.2	1.41	416	8.1	N/A	15.1&
082000	11.42	7.56	0.708	0.4	12.5	1.34	417	8.1	N/A	15.1&
083000	11.42	7.56	0.709	0.4	12.5	1.34	419	8.1	N/A	15.1&
084000	11.42	7.56	0.710	0.4	12.2	1.30	420	8.1	N/A	15.1&
085000	11.42	7.56	0.710	0.4	11.7	1.24	421	8.1	N/A	15.1&
090000	11.41	7.56	0.709	0.4	11.3	1.21	423	8.0	N/A	15.1&
091000	11.42	7.56	0.710	0.4	10.8	1.15	423	8.1	N/A	15.1&

TABLE B-10
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
092000	11.42	7.56	0.711	0.4	10.4	1.11	424	8.1	N/A	15.1&
093000	11.42	7.56	0.710	0.4	10.3	1.10	426	8.1	N/A	15.1&
094000	11.41	7.56	0.712	0.4	10.3	1.10	427	8.0	N/A	15.1&
095000	11.41	7.56	0.713	0.4	10.1	1.08	428	8.1	N/A	15.0&
100000	11.42	7.56	0.714	0.4	9.6	1.02	429	8.1	N/A	15.1&
101000	11.42	7.56	0.713	0.4	9.4	1.00	429	8.1	N/A	14.9&
102000	11.42	7.56	0.714	0.4	9.2	0.98	431	8.1	N/A	15.0&
103000	11.42	7.56	0.712	0.4	8.9	0.95	432	8.1	N/A	15.0&
104000	11.42	7.56	0.711	0.4	8.3	0.89	433	8.1	N/A	15.1&
105000	11.42	7.56	0.710	0.4	8.2	0.87	434	8.1	N/A	15.1&
110000	11.42	7.56	0.710	0.4	8.0	0.85	436	8.1	N/A	15.1&
111000	11.42	7.56	0.710	0.4	7.7	0.82	436	8.1	N/A	15.1&
112000	11.42	7.57	0.710	0.4	7.3	0.78	437	8.1	N/A	15.1&
113000	11.42	7.57	0.710	0.4	7.1	0.76	439	8.1	N/A	15.1&
114000	11.42	7.57	0.709	0.4	7.0	0.74	439	8.1	N/A	15.1&
115000	11.42	7.57	0.707	0.4	7.0	0.74	440	8.1	N/A	15.2&
120000	11.41	7.56	0.708	0.4	6.8	0.72	442	8.0	N/A	15.2&

Recovery finished at 101895 094938

TABLE B-11
WATER QUALITY IN WELL 31551
DURING 72-HOUR CONSTANT RATE INJECTION TEST
INCLUDING RECOVERY, 10/13/95 THROUGH 10/17/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: CONT51
Setup Date (MMDDYY): 101395
Setup Time (HHMMSS): 110619
Starting Date (MMDDYY): 101395
Starting Time (HHMMSS): 111000
Stopping Date (MMDDYY): 101795
Stopping Time (HHMMSS): 120000
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat: 745.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Feet, Level
Turbidity: Neph only, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101395										
111000	10.83	7.17	1.090	0.6	27.6	2.98	450	2.27	N/A	12.7
112000	10.81	7.18	1.052	0.6	33.3	3.60	452	2.33	N/A	12.8
113000	10.81	7.18	0.987	0.5	26.5	2.87	455	2.33	N/A	12.8
114000	10.81	7.18	0.997	0.5	18.3	1.97	457	2.33	N/A	12.8
115000	10.81	7.17	1.040	0.5	24.4	2.64	458	2.33	N/A	12.8
120000	10.81	7.18	1.050	0.6	22.9	2.48	458	2.33	N/A	12.7
121000	10.81	7.18	1.018	0.5	19.1	2.06	461	2.33	N/A	12.8
122000	10.79	7.18	0.985	0.5	23.8	2.57	462	2.34	N/A	12.8
123000	10.79	7.18	1.000	0.5	24.9	2.69	463	2.34	N/A	12.8
124000	10.79	7.18	1.049	0.5	25.9	2.80	464	2.34	N/A	12.8
125000	10.79	7.18	1.050	0.6	25.7	2.78	465	2.34	N/A	12.8
130000	10.81	7.18	1.046	0.5	25.2	2.73	465	2.34	N/A	12.7
131000	10.79	7.19	1.036	0.5	25.7	2.78	466	2.34	N/A	12.8
132000	10.79	7.18	1.022	0.5	25.2	2.73	466	2.34	N/A	12.8
133000	10.79	7.19	0.997	0.5	21.7	2.34	467	2.34	N/A	12.9
134000	10.81	7.19	0.979	0.5	18.7	2.03	467	2.34	N/A	12.9
135000	10.79	7.20	0.942	0.5	17.3	1.87	466	2.34	N/A	12.9
140000	10.81	7.22	0.922	0.5	13.7	1.49	465	2.34	N/A	12.8
141000	10.81	7.21	0.906	0.5	9.9	1.07	465	2.34	N/A	12.8
142000	10.81	7.22	0.846	0.4	7.3	0.79	465	2.34	N/A	12.9
143000	10.81	7.23	0.810	0.4	5.5	0.59	465	2.34	N/A	12.9
144000	10.81	7.25	0.760	0.4	4.4	0.47	464	2.34	N/A	12.9
145000	10.81	7.25	0.797	0.4	3.2	0.35	463	2.34	N/A	12.9
150000	10.83	7.25	0.775	0.4	2.6	0.28	462	2.34	N/A	12.8
151000	10.83	7.26	0.765	0.4	2.3	0.24	461	2.34	N/A	12.9
152000	10.83	7.28	0.742	0.4	2.1	0.23	459	2.34	N/A	12.9

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
153000	10.84	7.30	0.727	0.4	1.8	0.19	458	2.34	N/A	12.8
154000	10.83	7.28	0.716	0.4	1.6	0.17	458	2.34	N/A	12.9
155000	10.83	7.29	0.709	0.4	1.8	0.19	457	2.34	N/A	12.9
160000	10.84	7.29	0.711	0.4	2.1	0.23	456	2.34	N/A	12.8
161000	10.83	7.29	0.704	0.4	2.1	0.23	455	2.34	N/A	12.8
162000	10.84	7.30	0.699	0.4	2.1	0.23	455	2.34	N/A	12.9
163000	10.84	7.31	0.694	0.4	1.9	0.21	454	2.34	N/A	12.9
164000	10.84	7.31	0.690	0.4	1.8	0.19	453	2.34	N/A	12.9
165000	10.86	7.31	0.685	0.4	1.8	0.19	452	2.34	N/A	12.9
170000	10.86	7.31	0.681	0.4	1.6	0.17	452	2.34	N/A	12.8
171000	10.88	7.32	0.670	0.3	1.6	0.17	451	2.34	N/A	12.8
172000	10.89	7.33	0.663	0.3	1.0	0.10	450	2.34	N/A	12.9
173000	10.91	7.34	0.661	0.3	1.0	0.10	449	2.34	N/A	12.9
174000	10.91	7.34	0.658	0.3	1.0	0.10	448	2.34	N/A	12.9
175000	10.91	7.34	0.656	0.3	0.8	0.09	447	2.34	N/A	12.9
180000	10.93	7.34	0.655	0.3	0.8	0.09	446	2.34	N/A	12.8
181000	10.93	7.34	0.655	0.3	0.8	0.09	445	2.34	N/A	12.8
182000	10.94	7.35	0.653	0.3	1.0	0.10	445	2.34	N/A	12.9
183000	10.94	7.35	0.652	0.3	0.8	0.09	444	2.34	N/A	12.7
184000	10.96	7.35	0.651	0.3	1.0	0.10	443	2.34	N/A	12.7
185000	10.96	7.35	0.649	0.3	0.8	0.09	442	2.34	N/A	12.6
190000	10.97	7.35	0.648	0.3	0.0	0.00	442	2.34	N/A	12.6
191000	10.97	7.35	0.647	0.3	1.0	0.10	441	2.34	N/A	12.6
192000	10.99	7.35	0.647	0.3	0.8	0.09	440	2.34	N/A	12.6
193000	11.01	7.35	0.646	0.3	0.8	0.09	440	2.34	N/A	12.6
194000	11.01	7.35	0.645	0.3	0.8	0.09	439	2.34	N/A	12.7
195000	11.02	7.36	0.644	0.3	4.6	0.50	439	2.34	N/A	12.6
200000	11.04	7.36	0.645	0.3	5.4	0.59	438	2.34	N/A	12.6
201000	11.06	7.36	0.643	0.3	0.8	0.09	438	2.34	N/A	12.6
202000	11.06	7.36	0.643	0.3	0.8	0.09	437	2.34	N/A	12.6
203000	11.07	7.36	0.642	0.3	0.8	0.09	436	2.34	N/A	12.6
204000	11.09	7.36	0.642	0.3	0.0	0.00	436	2.34	N/A	12.6
205000	19.78	7.62	0.014	0.0	50.3	4.50	461	11.33	N/A	12.6
210000	19.10	7.40	0.015	0.0	50.0	4.54	458	11.10	N/A	12.5
211000	14.84	7.18	0.287	0.1	57.0	5.65	405	0.03	N/A	12.6
212000	11.38	7.33	0.641	0.3	5.8	0.62	408	2.34	N/A	12.6
213000	11.22	7.34	0.638	0.3	2.2	0.24	408	2.34	N/A	15.8&
214000	11.20	7.34	0.638	0.3	1.6	0.17	407	2.34	N/A	15.8&
215000	11.20	7.34	0.638	0.3	1.1	0.12	407	2.34	N/A	15.8&
220000	11.22	7.35	0.638	0.3	1.1	0.12	407	2.35	N/A	15.8&
221000	11.22	7.35	0.637	0.3	1.1	0.12	406	2.35	N/A	15.8&
222000	11.22	7.35	0.637	0.3	1.0	0.10	406	2.35	N/A	15.8&
223000	11.24	7.35	0.637	0.3	1.0	0.10	406	2.35	N/A	15.8&
224000	11.24	7.35	0.637	0.3	1.0	0.10	406	2.35	N/A	15.8&
225000	11.24	7.36	0.637	0.3	0.8	0.09	405	2.34	N/A	15.8&
230000	11.25	7.36	0.637	0.3	0.8	0.09	405	2.35	N/A	15.7&
231000	11.25	7.36	0.637	0.3	1.0	0.10	404	2.35	N/A	15.7&
232000	11.25	7.36	0.636	0.3	1.0	0.10	404	2.34	N/A	15.7&

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
233000	11.25	7.36	0.637	0.3	0.8	0.09	403	2.35	N/A	15.7&
234000	11.25	7.36	0.636	0.3	0.8	0.09	403	2.34	N/A	15.7&
235000	11.27	7.36	0.636	0.3	0.8	0.08	403	2.35	N/A	15.7&
Date (MMDDYY):	101495									
000000	11.27	7.37	0.636	0.3	0.8	0.08	402	2.35	N/A	15.7&
001000	11.27	7.37	0.636	0.3	1.0	0.10	402	2.35	N/A	15.7&
002000	11.27	7.37	0.636	0.3	1.0	0.10	401	2.34	N/A	15.7&
003000	11.27	7.37	0.635	0.3	0.8	0.08	401	2.35	N/A	15.7&
004000	11.27	7.37	0.635	0.3	0.8	0.08	401	2.34	N/A	15.7&
005000	11.27	7.37	0.635	0.3	0.8	0.08	400	2.34	N/A	15.6&
010000	11.29	7.37	0.636	0.3	0.8	0.08	400	2.35	N/A	15.6&
011000	11.29	7.37	0.635	0.3	1.0	0.10	400	2.34	N/A	15.7&
012000	11.29	7.37	0.635	0.3	0.8	0.08	399	2.34	N/A	15.7&
013000	11.29	7.38	0.635	0.3	0.8	0.08	398	2.34	N/A	15.7&
014000	11.29	7.38	0.635	0.3	0.8	0.08	398	2.34	N/A	15.7&
015000	11.29	7.38	0.635	0.3	1.0	0.10	397	2.34	N/A	15.7&
020000	11.29	7.38	0.635	0.3	0.6	0.07	397	2.34	N/A	15.6&
021000	11.29	7.38	0.635	0.3	0.8	0.08	396	2.34	N/A	15.6&
022000	11.29	7.38	0.635	0.3	0.8	0.08	396	2.34	N/A	15.6&
023000	11.29	7.38	0.636	0.3	0.8	0.08	396	2.34	N/A	15.6&
024000	11.29	7.38	0.635	0.3	0.8	0.08	395	2.34	N/A	15.6&
025000	11.29	7.38	0.636	0.3	1.0	0.10	395	2.34	N/A	15.6&
030000	11.29	7.39	0.636	0.3	0.6	0.07	394	2.34	N/A	15.6&
031000	11.29	7.38	0.635	0.3	0.8	0.08	394	2.34	N/A	15.6&
032000	11.29	7.39	0.635	0.3	0.8	0.08	393	2.34	N/A	15.6&
033000	11.29	7.39	0.636	0.3	0.8	0.08	393	2.34	N/A	15.6&
034000	11.29	7.39	0.635	0.3	1.0	0.10	392	2.34	N/A	13.1
035000	11.29	7.39	0.635	0.3	0.6	0.07	392	2.34	N/A	13.0
040000	11.29	7.39	0.636	0.3	0.8	0.08	391	2.34	N/A	13.0
041000	11.29	7.39	0.636	0.3	0.6	0.07	391	2.34	N/A	12.9
042000	11.29	7.39	0.636	0.3	0.8	0.08	390	2.34	N/A	12.9
043000	11.27	7.39	0.636	0.3	0.8	0.08	390	2.34	N/A	12.9
044000	11.27	7.39	0.636	0.3	0.8	0.08	389	2.34	N/A	12.8
045000	11.27	7.39	0.637	0.3	0.8	0.08	388	2.34	N/A	12.9
050000	11.27	7.39	0.637	0.3	0.8	0.08	387	2.34	N/A	12.8
051000	11.27	7.39	0.637	0.3	0.8	0.08	387	2.34	N/A	12.8
052000	11.27	7.40	0.637	0.3	0.6	0.07	386	2.34	N/A	12.9
053000	11.27	7.40	0.637	0.3	0.8	0.08	385	2.34	N/A	12.8
054000	11.27	7.40	0.636	0.3	0.8	0.08	385	2.34	N/A	12.9
055000	11.25	7.40	0.636	0.3	0.8	0.09	384	2.34	N/A	12.9
060000	11.25	7.40	0.636	0.3	0.8	0.09	383	2.34	N/A	12.8
061000	11.25	7.40	0.636	0.3	0.8	0.09	383	2.34	N/A	12.9
062000	11.25	7.41	0.636	0.3	0.8	0.09	382	2.34	N/A	12.9
063000	11.24	7.41	0.636	0.3	0.8	0.09	381	2.34	N/A	12.9
064000	11.24	7.41	0.636	0.3	0.8	0.09	381	2.34	N/A	12.9
065000	11.24	7.41	0.636	0.3	0.8	0.09	380	2.34	N/A	12.9
070000	11.24	7.41	0.637	0.3	0.8	0.09	380	2.34	N/A	12.7
071000	11.24	7.42	0.635	0.3	0.0	0.00	379	2.34	N/A	12.7

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
072000	11.24	7.41	0.637	0.3	0.8	0.09	378	2.34	N/A	12.8
073000	11.58	7.43	0.014	0.0	27.6	2.94	387	0.02	N/A	12.8
074000	17.14	7.57	0.020	0.0	47.0	4.44	419	0.33	N/A	12.8
075000	14.79	1.55	0.010	0.0	59.7	5.93	756	0.02	N/A	12.8
080000	11.24	7.38	0.636	0.3	5.9	0.63	385	2.35	N/A	12.7
081000	11.20	7.40	0.635	0.3	1.9	0.20	383	2.34	N/A	12.7
082000	11.20	7.41	0.636	0.3	1.4	0.15	381	2.35	N/A	12.7
083000	11.20	7.41	0.636	0.3	1.1	0.12	380	2.35	N/A	12.8
084000	11.20	7.41	0.637	0.3	1.0	0.10	378	2.35	N/A	12.8
085000	11.20	7.41	0.637	0.3	0.2	0.02	377	2.35	N/A	12.8
090000	11.20	7.41	0.636	0.3	0.8	0.09	377	2.35	N/A	12.7
091000	11.19	7.41	0.637	0.3	0.8	0.09	375	2.35	N/A	12.8
092000	11.19	7.42	0.637	0.3	0.8	0.09	374	2.35	N/A	12.7
093000	11.19	7.42	0.637	0.3	0.0	0.00	374	2.35	N/A	12.8
094000	11.19	7.42	0.637	0.3	1.0	0.10	373	2.35	N/A	12.8
095000	11.19	7.42	0.637	0.3	0.8	0.09	372	2.35	N/A	12.8
100000	11.19	7.42	0.638	0.3	0.8	0.09	371	2.35	N/A	12.7
101000	11.19	7.42	0.638	0.3	0.8	0.09	370	2.35	N/A	12.8
102000	11.19	7.42	0.637	0.3	0.8	0.09	370	2.35	N/A	12.8
103000	11.19	7.42	0.638	0.3	0.8	0.09	370	2.35	N/A	12.7
104000	11.19	7.42	0.638	0.3	0.6	0.07	369	2.35	N/A	12.8
105000	11.17	7.42	0.638	0.3	0.6	0.07	368	2.35	N/A	12.8
110000	11.19	7.42	0.639	0.3	0.6	0.07	368	2.35	N/A	12.7
111000	11.17	7.42	0.638	0.3	1.0	0.10	367	2.35	N/A	12.7
112000	11.19	7.42	0.638	0.3	0.8	0.09	367	2.35	N/A	12.8
113000	11.19	7.42	0.639	0.3	0.8	0.09	366	2.35	N/A	12.8
114000	11.17	7.42	0.639	0.3	0.8	0.09	365	2.35	N/A	12.8
115000	11.17	7.42	0.639	0.3	0.8	0.09	365	2.35	N/A	12.8
120000	11.17	7.43	0.640	0.3	0.8	0.09	364	2.35	N/A	12.7
121000	11.17	7.42	0.639	0.3	0.8	0.09	364	2.35	N/A	12.7
122000	11.17	7.42	0.640	0.3	0.8	0.09	364	2.35	N/A	12.8
123000	11.17	7.42	0.639	0.3	0.8	0.09	363	2.35	N/A	12.7
124000	11.17	7.43	0.639	0.3	0.8	0.09	362	2.35	N/A	12.7
125000	11.17	7.43	0.639	0.3	0.8	0.09	362	2.35	N/A	12.7
130000	11.17	7.43	0.640	0.3	0.8	0.09	361	2.35	N/A	12.6
131000	11.17	7.43	0.639	0.3	0.8	0.09	361	2.35	N/A	12.7
132000	11.17	7.43	0.639	0.3	0.8	0.09	361	2.35	N/A	12.8
133000	11.17	7.43	0.639	0.3	0.6	0.07	360	2.35	N/A	12.8
134000	11.17	7.43	0.639	0.3	0.6	0.07	359	2.35	N/A	12.8
135000	11.17	7.43	0.639	0.3	0.6	0.07	359	2.35	N/A	12.8
140000	11.17	7.43	0.639	0.3	0.6	0.07	358	2.35	N/A	12.7
141000	11.17	7.43	0.639	0.3	0.6	0.07	358	2.35	N/A	12.7
142000	11.17	7.43	0.639	0.3	0.8	0.09	357	2.35	N/A	12.8
143000	11.16	7.43	0.639	0.3	0.6	0.07	357	2.35	N/A	12.8
144000	11.17	7.43	0.640	0.3	0.6	0.07	357	2.35	N/A	12.8
145000	11.16	7.43	0.639	0.3	0.8	0.09	356	2.35	N/A	12.7
150000	11.17	7.43	0.640	0.3	0.6	0.07	356	2.35	N/A	12.6
151000	11.17	7.43	0.640	0.3	0.6	0.07	355	2.35	N/A	12.7
152000	11.17	7.43	0.640	0.3	0.6	0.07	355	2.35	N/A	12.8

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
153000	11.17	7.43	0.641	0.3	0.8	0.09	355	2.35	N/A	12.7
154000	11.17	7.43	0.641	0.3	0.8	0.09	354	2.35	N/A	12.7
155000	11.17	7.43	0.640	0.3	0.8	0.09	354	2.35	N/A	12.7
160000	11.17	7.43	0.640	0.3	0.6	0.07	354	2.35	N/A	12.6
161000	11.17	7.43	0.641	0.3	0.8	0.09	353	2.35	N/A	12.7
162000	11.17	7.43	0.641	0.3	0.6	0.07	353	2.35	N/A	12.8
163000	11.17	7.43	0.640	0.3	0.8	0.09	352	2.34	N/A	12.8
164000	11.16	7.43	0.641	0.3	0.8	0.09	352	2.35	N/A	12.7
165000	11.17	7.43	0.641	0.3	0.8	0.09	352	2.35	N/A	12.8
170000	11.17	7.43	0.640	0.3	0.8	0.09	351	2.35	N/A	12.7
171000	11.17	7.43	0.641	0.3	0.6	0.07	351	2.35	N/A	12.8
172000	11.16	7.43	0.641	0.3	0.8	0.09	351	2.35	N/A	12.8
173000	11.16	7.43	0.641	0.3	0.8	0.09	350	2.35	N/A	12.8
174000	11.16	7.43	0.641	0.3	0.8	0.09	350	2.35	N/A	12.8
175000	11.16	7.43	0.641	0.3	0.8	0.09	349	2.35	N/A	12.8
180000	11.16	7.43	0.641	0.3	0.6	0.07	348	2.35	N/A	12.7
181000	11.16	7.43	0.642	0.3	0.6	0.07	348	2.35	N/A	12.8
182000	11.16	7.43	0.641	0.3	0.6	0.07	347	2.35	N/A	12.8
183000	11.16	7.43	0.640	0.3	0.8	0.09	346	2.35	N/A	12.8
184000	11.16	7.43	0.640	0.3	0.8	0.09	346	2.35	N/A	12.7
185000	11.16	7.43	0.640	0.3	0.8	0.09	345	2.35	N/A	12.7
190000	11.16	7.43	0.641	0.3	0.6	0.07	344	2.35	N/A	12.6
191000	11.16	7.43	0.641	0.3	0.8	0.09	344	2.35	N/A	12.7
192000	11.16	7.43	0.641	0.3	0.0	0.00	342	2.35	N/A	12.7
193000	11.14	7.43	0.642	0.3	0.5	0.05	340	2.35	N/A	12.7
194000	11.14	7.43	0.641	0.3	0.3	0.03	338	2.35	N/A	12.7
195000	11.14	7.43	0.642	0.3	0.6	0.07	335	2.35	N/A	12.8
200000	12.12	7.59	0.103	0.0	49.0	5.16	364	2.31	N/A	12.6
201000	11.61	7.50	0.097	0.0	53.0	5.65	363	2.54	N/A	12.7
202000	11.17	7.44	0.097	0.0	52.7	5.67	367	2.55	N/A	12.8
203000	11.14	7.42	0.640	0.3	10.0	1.08	358	2.36	N/A	12.7
204000	11.14	7.43	0.640	0.3	7.0	0.75	356	2.36	N/A	12.7
205000	11.14	7.43	0.640	0.3	7.3	0.79	354	2.36	N/A	12.7
210000	11.14	7.44	0.640	0.3	22.6	2.43	354	2.36	N/A	12.6
211000	11.12	7.44	0.640	0.3	10.2	1.10	352	2.36	N/A	12.7
212000	11.12	7.44	0.640	0.3	10.4	1.11	351	2.36	N/A	12.7
213000	11.12	7.44	0.637	0.3	0.0	0.00	351	2.35	N/A	12.7
214000	11.12	7.44	0.641	0.3	9.9	1.06	350	2.36	N/A	15.6&
215000	11.12	7.44	0.640	0.3	9.7	1.05	349	2.36	N/A	15.6&
220000	11.12	7.44	0.640	0.3	9.4	1.01	349	2.36	N/A	15.6&
221000	11.12	7.44	0.641	0.3	9.3	0.99	348	2.36	N/A	15.6&
222000	11.12	7.44	0.640	0.3	8.8	0.94	348	2.36	N/A	15.5&
223000	11.12	7.44	0.640	0.3	8.6	0.93	347	2.36	N/A	15.6&
224000	11.12	7.44	0.641	0.3	8.5	0.91	346	2.36	N/A	15.5&
225000	11.12	7.44	0.641	0.3	8.1	0.87	345	2.35	N/A	15.5&
230000	11.12	7.43	0.640	0.3	7.8	0.84	345	2.35	N/A	15.5&
231000	11.11	7.44	0.641	0.3	7.5	0.81	344	2.36	N/A	15.6&
232000	11.12	7.44	0.641	0.3	7.2	0.77	343	2.36	N/A	15.5&

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
233000	11.11	7.44	0.642	0.3	6.7	0.72	342	2.35	N/A	15.5&
234000	11.11	7.44	0.641	0.3	6.5	0.70	341	2.36	N/A	15.5&
235000	11.11	7.44	0.641	0.3	6.2	0.67	341	2.36	N/A	15.5&
Date (MMDDYY):	101595									
000000	11.11	7.44	0.641	0.3	5.9	0.64	340	2.36	N/A	15.5&
001000	11.11	7.44	0.642	0.3	5.7	0.62	339	2.36	N/A	15.5&
002000	11.11	7.44	0.641	0.3	5.4	0.58	338	2.36	N/A	15.5&
003000	11.11	7.44	0.641	0.3	5.3	0.57	337	2.36	N/A	15.5&
004000	11.11	7.44	0.641	0.3	5.1	0.55	336	2.36	N/A	15.5&
005000	11.11	7.44	0.641	0.3	4.9	0.53	335	2.35	N/A	15.5&
010000	11.12	7.44	0.642	0.3	4.6	0.50	335	2.35	N/A	15.4&
011000	11.11	7.44	0.641	0.3	4.5	0.48	334	2.36	N/A	15.4&
012000	11.11	7.44	0.641	0.3	4.3	0.46	333	2.35	N/A	15.4&
013000	11.12	7.44	0.641	0.3	4.1	0.45	332	2.35	N/A	15.4&
014000	11.11	7.44	0.641	0.3	4.1	0.45	331	2.35	N/A	15.4&
015000	11.11	7.44	0.641	0.3	4.0	0.43	331	2.36	N/A	15.4&
020000	11.11	7.44	0.641	0.3	3.7	0.39	330	2.36	N/A	15.4&
021000	11.12	7.44	0.642	0.3	3.7	0.39	330	2.36	N/A	15.4&
022000	11.12	7.44	0.642	0.3	3.5	0.38	329	2.35	N/A	15.4&
023000	11.12	7.44	0.642	0.3	3.5	0.38	329	2.35	N/A	15.4&
024000	11.12	7.44	0.642	0.3	3.3	0.36	328	2.35	N/A	15.4&
025000	11.12	7.44	0.642	0.3	3.2	0.34	328	2.36	N/A	15.4&
030000	11.12	7.44	0.641	0.3	3.0	0.33	328	2.35	N/A	15.4&
031000	11.12	7.44	0.642	0.3	3.0	0.33	327	2.35	N/A	15.3&
032000	11.12	7.44	0.642	0.3	2.9	0.31	326	2.35	N/A	15.5&
033000	11.12	7.44	0.641	0.3	2.7	0.29	325	2.34	N/A	15.4&
034000	11.12	7.44	0.642	0.3	2.4	0.26	323	2.34	N/A	15.3&
035000	11.12	7.44	0.642	0.3	2.2	0.24	321	2.33	N/A	15.4&
040000	11.12	7.44	0.642	0.3	2.7	0.29	315	2.33	N/A	15.3&
041000	11.12	7.44	0.642	0.3	3.0	0.33	310	2.33	N/A	15.3&
042000	11.12	7.44	0.642	0.3	3.2	0.34	306	2.33	N/A	15.4&
043000	11.12	7.44	0.642	0.3	2.9	0.31	302	2.33	N/A	15.4&
044000	11.12	7.44	0.641	0.3	2.9	0.31	298	2.33	N/A	15.4&
045000	11.12	7.44	0.642	0.3	2.7	0.29	294	2.33	N/A	15.3&
050000	11.14	7.44	0.641	0.3	2.7	0.29	291	2.33	N/A	15.3&
051000	11.14	7.44	0.642	0.3	2.7	0.29	289	2.33	N/A	15.3&
052000	11.14	7.44	0.642	0.3	2.6	0.27	286	2.34	N/A	15.3&
053000	11.14	7.44	0.642	0.3	2.6	0.27	284	2.34	N/A	15.3&
054000	11.14	7.44	0.641	0.3	2.2	0.24	286	2.35	N/A	15.3&
055000	11.14	7.44	0.641	0.3	2.2	0.24	286	2.35	N/A	15.3&
060000	11.14	7.44	0.642	0.3	1.9	0.21	288	2.35	N/A	15.3&
061000	11.14	7.44	0.641	0.3	1.8	0.19	289	2.35	N/A	15.3&
062000	11.14	7.44	0.641	0.3	1.6	0.17	287	2.35	N/A	15.1&
063000	11.14	7.44	0.641	0.3	1.4	0.15	284	2.35	N/A	15.3&
064000	11.14	7.44	0.641	0.3	1.4	0.15	282	2.35	N/A	15.3&
065000	11.14	7.44	0.641	0.3	1.4	0.15	281	2.35	N/A	15.3&
070000	11.14	7.44	0.641	0.3	1.4	0.15	280	2.36	N/A	15.3&
071000	11.12	7.44	0.641	0.3	1.6	0.17	279	2.35	N/A	15.3&

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
072000	11.12	7.44	0.641	0.3	1.6	0.17	278	2.36	N/A	15.3&
073000	11.14	7.44	0.641	0.3	1.3	0.14	277	2.36	N/A	15.3&
074000	11.12	7.45	0.641	0.3	1.3	0.14	276	2.35	N/A	15.3&
075000	11.12	7.45	0.641	0.3	1.4	0.15	275	2.36	N/A	15.3&
080000	13.63	7.98	0.011	0.0	56.1	5.71	328	4.63	N/A	15.3&
081000	11.74	7.84	0.013	0.0	52.2	5.55	365	4.73	N/A	15.3&
082000	10.43	7.72	0.014	0.0	51.7	5.66	378	4.86	N/A	15.3&
083000	10.99	7.40	0.635	0.3	0.0	0.00	361	2.36	N/A	12.9
084000	11.09	7.43	0.640	0.3	2.7	0.29	354	2.35	N/A	12.7
085000	11.12	7.44	0.641	0.3	1.4	0.15	349	2.36	N/A	12.7
090000	11.12	7.44	0.640	0.3	0.0	0.00	346	2.36	N/A	12.7
091000	11.13	7.44	0.640	0.3	0.0	0.00	343	2.36	N/A	12.8
092000	11.13	7.44	0.641	0.3	1.0	0.10	341	2.36	N/A	12.8
093000	11.11	7.44	0.641	0.3	0.8	0.09	338	2.36	N/A	12.8
094000	11.13	7.45	0.640	0.3	0.0	0.00	336	2.36	N/A	12.8
095000	11.11	7.45	0.640	0.3	0.8	0.09	333	2.36	N/A	12.8
100000	11.12	7.45	0.640	0.3	0.8	0.09	331	2.36	N/A	12.7
101000	11.11	7.45	0.640	0.3	0.8	0.09	329	2.36	N/A	12.8
102000	11.12	7.45	0.640	0.3	0.6	0.07	327	2.36	N/A	12.8
103000	11.12	7.45	0.640	0.3	0.6	0.07	326	2.36	N/A	12.8
104000	11.11	7.45	0.640	0.3	0.8	0.09	325	2.36	N/A	12.8
105000	11.11	7.45	0.641	0.3	0.8	0.09	326	2.35	N/A	12.8
110000	11.11	7.45	0.640	0.3	0.8	0.09	328	2.35	N/A	12.7
111000	11.12	7.45	0.640	0.3	0.8	0.09	330	2.36	N/A	12.8
112000	11.09	7.44	0.640	0.3	1.0	0.10	334	2.35	N/A	12.8
113000	11.10	7.44	0.640	0.3	1.0	0.10	338	2.36	N/A	12.8
114000	11.09	7.44	0.640	0.3	1.4	0.15	344	2.35	N/A	12.8
115000	11.12	7.44	0.640	0.3	1.9	0.21	351	2.35	N/A	12.8
120000	11.12	7.44	0.640	0.3	3.3	0.36	356	2.35	N/A	12.7
121000	11.09	7.44	0.641	0.3	5.1	0.55	361	2.35	N/A	12.8
122000	11.09	7.44	0.641	0.3	5.9	0.64	367	2.35	N/A	12.8
123000	11.10	7.44	0.641	0.3	7.3	0.79	373	2.35	N/A	12.8
124000	11.09	7.44	0.641	0.3	9.4	1.01	379	2.35	N/A	12.8
125000	11.10	7.44	0.642	0.3	11.6	1.25	385	2.35	N/A	12.8
130000	11.09	7.43	0.642	0.3	14.5	1.56	390	2.34	N/A	12.7
131000	11.09	7.43	0.642	0.3	17.6	1.89	394	2.35	N/A	12.8
132000	11.09	7.43	0.643	0.3	20.6	2.22	399	2.35	N/A	12.8
133000	11.10	7.44	0.643	0.3	23.8	2.56	403	2.35	N/A	12.8
134000	11.09	7.43	0.643	0.3	27.2	2.92	407	2.34	N/A	12.8
135000	11.09	7.43	0.643	0.3	30.2	3.25	410	2.35	N/A	12.8
140000	11.09	7.43	0.643	0.3	33.4	3.59	413	2.35	N/A	12.7
141000	11.07	7.43	0.643	0.3	36.6	3.94	417	2.34	N/A	12.8
142000	11.09	7.43	0.643	0.3	39.3	4.23	419	2.34	N/A	12.8
143000	11.09	7.43	0.643	0.3	42.0	4.52	421	2.34	N/A	12.8
144000	11.09	7.44	0.644	0.3	44.6	4.79	423	2.34	N/A	12.8
145000	11.07	7.44	0.643	0.3	47.1	5.08	425	2.35	N/A	12.8
150000	11.09	7.44	0.643	0.3	50.1	5.40	429	2.35	N/A	12.7
151000	11.07	7.44	0.643	0.3	51.1	5.51	429	2.35	N/A	12.8
152000	11.07	7.44	0.643	0.3	52.7	5.68	432	2.36	N/A	12.7

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
153000	11.07	7.44	0.642	0.3	54.0	5.81	432	2.35	N/A	12.8
154000	11.06	7.44	0.641	0.3	55.5	5.98	434	2.36	N/A	12.7
155000	11.07	7.44	0.642	0.3	56.2	6.06	435	2.36	N/A	12.7
160000	11.07	7.44	0.640	0.3	56.6	6.09	436	2.36	N/A	12.6
161000	11.07	7.44	0.641	0.3	56.7	6.11	437	2.36	N/A	12.7
162000	11.07	7.44	0.640	0.3	56.6	6.09	437	2.36	N/A	12.7
163000	11.06	7.44	0.641	0.3	56.5	6.08	438	2.36	N/A	12.7
164000	11.07	7.44	0.641	0.3	55.8	6.00	438	2.36	N/A	12.7
165000	11.07	7.44	0.640	0.3	54.8	5.90	438	2.36	N/A	12.7
170000	11.06	7.44	0.640	0.3	53.7	5.79	439	2.35	N/A	12.6
171000	11.07	7.45	0.639	0.3	52.4	5.64	439	2.36	N/A	12.6
172000	11.07	7.45	0.639	0.3	51.0	5.49	439	2.36	N/A	12.7
173000	11.07	7.45	0.639	0.3	49.4	5.32	439	2.36	N/A	12.7
174000	11.06	7.45	0.640	0.3	47.7	5.13	439	2.36	N/A	12.7
175000	11.07	7.45	0.639	0.3	45.7	4.92	439	2.36	N/A	12.7
180000	11.07	7.45	0.639	0.3	44.1	4.75	438	2.36	N/A	12.6
181000	11.07	7.45	0.639	0.3	42.0	4.52	436	2.36	N/A	12.7
182000	11.06	7.45	0.640	0.3	40.3	4.34	434	2.36	N/A	12.7
183000	11.07	7.45	0.639	0.3	38.4	4.13	432	2.36	N/A	12.6
184000	11.06	7.45	0.640	0.3	36.5	3.93	430	2.36	N/A	12.7
185000	11.07	7.45	0.639	0.3	35.0	3.77	429	2.36	N/A	12.7
190000	11.07	7.45	0.639	0.3	33.2	3.58	427	2.36	N/A	12.6
191000	11.06	7.45	0.640	0.3	32.0	3.44	426	2.36	N/A	12.7
192000	11.07	7.45	0.639	0.3	28.4	3.06	425	2.36	N/A	12.7
193000	11.06	7.45	0.640	0.3	29.6	3.19	424	2.35	N/A	12.6
194000	8.67	7.56	0.012	0.0	91.2	10.41	425	0.03	N/A	12.6
195000	8.82	7.73	0.036	0.0	65.8	7.49	431	0.30	N/A	12.6
200000	7.84	7.60	0.037	0.0	63.2	7.36	435	0.29	N/A	12.5
201000	11.16	7.42	0.637	0.3	36.6	3.94	415	2.36	N/A	12.6
202000	11.07	7.45	0.638	0.3	24.8	2.67	416	2.36	N/A	12.6
203000	11.06	7.45	0.638	0.3	22.9	2.46	418	2.36	N/A	12.6
204000	11.07	7.46	0.638	0.3	23.3	2.51	419	2.36	N/A	12.6
205000	11.07	7.46	0.638	0.3	22.1	2.37	421	2.36	N/A	12.7
210000	11.07	7.46	0.638	0.3	21.1	2.27	422	2.36	N/A	12.5
211000	11.06	7.46	0.633	0.3	0.0	0.00	424	2.36	N/A	12.6
212000	11.06	7.46	0.638	0.3	19.5	2.10	424	2.36	N/A	12.6
213000	11.06	7.46	0.638	0.3	18.9	2.03	425	2.36	N/A	12.6
214000	11.07	7.46	0.638	0.3	18.1	1.94	425	2.36	N/A	15.4&
215000	11.07	7.46	0.638	0.3	17.4	1.88	426	2.36	N/A	15.4&
220000	11.06	7.46	0.638	0.3	16.8	1.81	427	2.35	N/A	15.4&
221000	11.06	7.46	0.638	0.3	16.0	1.72	428	2.35	N/A	15.3&
222000	11.07	7.46	0.639	0.3	15.3	1.65	428	2.36	N/A	15.4&
223000	11.06	7.46	0.639	0.3	14.6	1.57	429	2.36	N/A	15.4&
224000	11.06	7.45	0.639	0.3	14.1	1.52	429	2.36	N/A	15.4&
225000	11.07	7.46	0.639	0.3	13.6	1.46	429	2.36	N/A	15.3&
230000	11.09	7.46	0.639	0.3	13.1	1.41	430	2.36	N/A	15.3&
231000	11.09	7.46	0.639	0.3	12.8	1.37	430	2.36	N/A	15.3&
232000	11.07	7.46	0.639	0.3	12.5	1.34	430	2.36	N/A	15.3&

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
233000	11.09	7.46	0.639	0.3	12.1	1.31	430	2.36	N/A	15.3&
234000	11.09	7.46	0.639	0.3	11.8	1.27	431	2.36	N/A	15.3&
235000	11.09	7.46	0.639	0.3	11.5	1.24	431	2.36	N/A	15.3&
Date (MMDDYY): 101695										
000000	11.07	7.46	0.639	0.3	11.2	1.20	432	2.35	N/A	15.3&
001000	11.09	7.46	0.639	0.3	10.9	1.17	431	2.36	N/A	15.3&
002000	11.09	7.46	0.639	0.3	10.7	1.15	431	2.36	N/A	15.3&
003000	11.09	7.47	0.639	0.3	10.4	1.12	431	2.36	N/A	15.3&
004000	11.09	7.47	0.639	0.3	10.2	1.10	432	2.36	N/A	15.3&
005000	11.09	7.47	0.639	0.3	10.1	1.08	432	2.36	N/A	15.2&
010000	11.10	7.47	0.639	0.3	9.4	1.01	431	2.36	N/A	15.4&
011000	11.11	7.47	0.639	0.3	9.4	1.01	431	2.36	N/A	15.2&
012000	11.11	7.47	0.640	0.3	9.1	0.98	431	2.36	N/A	15.2&
013000	11.11	7.47	0.639	0.3	8.8	0.94	431	2.36	N/A	15.2&
014000	11.12	7.47	0.639	0.3	8.6	0.93	431	2.36	N/A	15.2&
015000	11.12	7.47	0.639	0.3	8.5	0.91	431	2.36	N/A	15.2&
020000	11.12	7.47	0.639	0.3	8.0	0.86	431	2.36	N/A	15.2&
021000	11.12	7.47	0.639	0.3	7.8	0.84	431	2.36	N/A	15.2&
022000	11.15	7.47	0.638	0.3	7.5	0.80	431	2.36	N/A	15.2&
023000	11.14	7.47	0.639	0.3	7.2	0.77	431	2.35	N/A	15.3&
024000	11.14	7.47	0.639	0.3	6.9	0.74	430	2.36	N/A	15.3&
025000	11.14	7.47	0.639	0.3	6.5	0.70	430	2.36	N/A	15.2&
030000	11.16	7.47	0.639	0.3	6.2	0.67	430	2.35	N/A	15.1&
031000	11.16	7.47	0.639	0.3	5.9	0.63	429	2.37	N/A	15.2&
032000	11.17	7.47	0.639	0.3	5.7	0.62	429	2.37	N/A	15.3&
033000	11.18	7.47	0.639	0.3	5.4	0.58	429	2.37	N/A	15.2&
034000	11.17	7.47	0.639	0.3	5.1	0.55	429	2.36	N/A	15.2&
035000	11.17	7.47	0.639	0.3	4.9	0.53	429	2.37	N/A	15.2&
040000	11.18	7.47	0.639	0.3	4.6	0.50	429	2.37	N/A	15.2&
041000	11.17	7.47	0.639	0.3	4.5	0.48	428	2.37	N/A	15.1&
042000	11.19	7.47	0.639	0.3	4.3	0.46	428	2.37	N/A	15.2&
043000	11.20	7.47	0.639	0.3	4.1	0.44	428	2.37	N/A	15.2&
044000	11.20	7.47	0.639	0.3	4.0	0.43	427	2.37	N/A	15.2&
045000	11.20	7.47	0.639	0.3	3.8	0.41	427	2.37	N/A	15.2&
050000	11.19	7.47	0.639	0.3	3.7	0.39	427	2.36	N/A	15.1&
051000	11.20	7.48	0.639	0.3	3.5	0.38	426	2.37	N/A	12.8
052000	11.20	7.48	0.639	0.3	3.3	0.36	426	2.37	N/A	12.8
053000	11.19	7.48	0.639	0.3	3.3	0.36	426	2.37	N/A	12.8
054000	11.19	7.47	0.640	0.3	3.0	0.32	426	2.36	N/A	12.7
055000	11.19	7.48	0.639	0.3	2.9	0.31	426	2.37	N/A	12.8
060000	11.19	7.48	0.639	0.3	2.7	0.29	426	2.36	N/A	12.6
061000	11.19	7.48	0.640	0.3	2.7	0.29	425	2.37	N/A	12.7
062000	11.20	7.48	0.639	0.3	2.5	0.27	424	2.37	N/A	12.7
063000	11.19	7.48	0.639	0.3	2.4	0.26	424	2.37	N/A	12.7
064000	11.19	7.48	0.639	0.3	2.1	0.22	424	2.37	N/A	12.6
065000	11.19	7.48	0.640	0.3	2.1	0.22	423	2.37	N/A	12.7
070000	11.20	7.48	0.639	0.3	1.9	0.20	423	2.37	N/A	12.5
071000	11.19	7.48	0.640	0.3	1.9	0.20	423	2.36	N/A	12.5
072000	11.18	7.48	0.640	0.3	1.7	0.19	422	2.37	N/A	12.6
073000	11.18	7.48	0.640	0.3	1.6	0.17	422	2.37	N/A	12.6

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
074000	11.17	7.48	0.640	0.3	1.4	0.15	422	2.37	N/A	12.6
075000	11.18	7.48	0.640	0.3	1.4	0.15	422	2.37	N/A	12.6
080000	11.17	7.48	0.640	0.3	1.4	0.15	422	2.36	N/A	12.5
081000	11.16	7.48	0.640	0.3	1.4	0.15	421	2.36	N/A	12.6
082000	11.78	7.69	0.014	0.0	43.6	4.63	454	1.71	N/A	12.6
083000	9.10	7.62	0.015	0.0	40.4	4.57	447	1.82	N/A	12.5
084000	10.60	7.37	0.639	0.3	38.3	4.17	423	2.37	N/A	12.6
085000	11.01	7.47	0.640	0.3	6.4	0.69	417	2.39	N/A	12.5
090000	11.09	7.48	0.640	0.3	4.0	0.43	416	2.39	N/A	12.4
091000	11.13	7.48	0.637	0.3	0.0	0.00	415	2.37	N/A	12.5
092000	11.12	7.48	0.639	0.3	2.4	0.26	414	2.39	N/A	12.6
093000	11.13	7.48	0.639	0.3	2.4	0.26	413	2.38	N/A	12.6
094000	11.14	7.48	0.639	0.3	0.5	0.05	413	2.39	N/A	12.6
095000	11.13	7.48	0.639	0.3	2.1	0.22	412	2.38	N/A	12.6
100000	11.13	7.49	0.639	0.3	1.9	0.21	412	2.38	N/A	12.5
101000	11.13	7.49	0.639	0.3	0.6	0.07	412	2.38	N/A	12.4
102000	11.13	7.49	0.639	0.3	1.1	0.12	412	2.38	N/A	12.6
103000	11.12	7.49	0.641	0.3	1.4	0.15	411	2.38	N/A	12.6
104000	11.12	7.49	0.640	0.3	1.3	0.14	411	2.38	N/A	12.6
105000	11.12	7.49	0.640	0.3	1.1	0.12	411	2.38	N/A	12.6
110000	11.12	7.49	0.640	0.3	1.1	0.12	411	2.38	N/A	12.5
111000	11.12	7.49	0.640	0.3	0.5	0.05	410	2.38	N/A	12.6
112000	11.09	7.49	0.641	0.3	0.8	0.09	410	2.39	N/A	12.6
113000	11.09	7.49	0.641	0.3	1.0	0.10	410	2.37	N/A	12.6
114000	11.09	7.49	0.641	0.3	1.0	0.10	409	2.39	N/A	12.6
115000	11.10	7.49	0.640	0.3	0.8	0.09	409	2.38	N/A	12.6
120000	11.09	7.49	0.640	0.3	0.6	0.07	409	2.38	N/A	12.5
121000	11.07	7.49	0.641	0.3	0.8	0.09	409	2.39	N/A	12.6
122000	11.09	7.49	0.641	0.3	0.8	0.09	409	2.38	N/A	12.6
123000	11.09	7.49	0.640	0.3	0.8	0.09	408	2.38	N/A	12.6
124000	11.06	7.49	0.641	0.3	0.8	0.09	408	2.39	N/A	12.6
125000	11.06	7.49	0.641	0.3	0.6	0.07	408	2.39	N/A	12.6
130000	11.07	7.49	0.640	0.3	0.8	0.09	407	2.38	N/A	12.5
131000	11.06	7.49	0.641	0.3	0.8	0.09	407	2.39	N/A	12.6
132000	11.06	7.49	0.641	0.3	0.8	0.09	406	2.39	N/A	12.6
133000	11.06	7.49	0.641	0.3	0.6	0.07	406	2.39	N/A	12.6
134000	11.05	7.49	0.640	0.3	0.6	0.07	406	2.38	N/A	12.6
135000	11.05	7.49	0.640	0.3	0.6	0.07	406	2.38	N/A	12.6
140000	11.04	7.49	0.641	0.3	0.8	0.09	406	2.37	N/A	12.5
141000	11.05	7.49	0.641	0.3	0.6	0.07	405	2.38	N/A	12.6
142000	11.05	7.49	0.641	0.3	0.6	0.07	404	2.38	N/A	12.6
143000	11.05	7.49	0.641	0.3	0.6	0.07	404	2.38	N/A	12.6
144000	11.04	7.49	0.642	0.3	0.6	0.07	404	2.39	N/A	12.6
145000	11.04	7.49	0.641	0.3	0.6	0.07	403	2.38	N/A	12.6
150000	11.02	7.50	0.643	0.3	0.6	0.07	403	2.39	N/A	12.6
151000	11.02	7.50	0.642	0.3	0.8	0.09	403	2.39	N/A	12.6
152000	11.02	7.50	0.642	0.3	0.8	0.09	402	2.39	N/A	12.6
153000	11.12	7.46	0.639	0.3	0.8	0.09	404	2.33	N/A	12.6
154000	11.11	7.47	0.639	0.3	1.0	0.10	405	2.32	N/A	12.6

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
155000	11.11	7.47	0.640	0.3	0.8	0.09	405	2.32	N/A	12.6
160000	11.11	7.46	0.640	0.3	0.8	0.09	406	2.31	N/A	12.5
161000	11.12	7.46	0.638	0.3	0.6	0.07	406	2.32	N/A	12.5
162000	11.11	7.46	0.639	0.3	0.8	0.09	408	2.30	N/A	12.5
163000	11.11	7.46	0.640	0.3	0.8	0.09	408	2.30	N/A	12.6
164000	11.09	7.47	0.639	0.3	0.6	0.07	408	2.31	N/A	12.5
165000	11.10	7.46	0.638	0.3	0.6	0.07	409	2.31	N/A	12.6
170000	11.10	7.46	0.638	0.3	0.6	0.07	409	2.31	N/A	12.5
171000	11.09	7.47	0.639	0.3	0.6	0.07	409	2.31	N/A	12.5
172000	11.09	7.47	0.639	0.3	0.6	0.07	409	2.31	N/A	12.5
173000	11.10	7.46	0.638	0.3	0.8	0.09	410	2.31	N/A	12.5
174000	11.09	7.47	0.639	0.3	0.6	0.07	410	2.31	N/A	12.5
175000	11.09	7.46	0.639	0.3	0.6	0.07	410	2.31	N/A	12.5
180000	11.10	7.47	0.638	0.3	0.0	0.00	410	2.30	N/A	12.5
181000	11.07	7.47	0.640	0.3	0.6	0.07	410	2.30	N/A	12.5
182000	11.09	7.47	0.639	0.3	0.6	0.07	410	2.30	N/A	12.5
183000	16.45	7.79	0.009	0.0	54.6	5.23	431	8.53	N/A	12.5
184000	14.86	7.45	0.011	0.0	55.6	5.51	435	8.75	N/A	12.5
185000	11.34	7.14	0.639	0.3	60.2	6.45	414	2.30	N/A	12.5
190000	11.20	7.46	0.637	0.3	4.6	0.49	402	2.31	N/A	12.4
191000	11.12	7.47	0.638	0.3	4.9	0.53	400	2.30	N/A	12.5
192000	11.09	7.47	0.638	0.3	2.6	0.27	399	2.30	N/A	12.5
193000	11.09	7.48	0.649	0.3	2.7	0.29	398	2.30	N/A	12.5
194000	11.07	7.48	0.668	0.3	2.2	0.24	397	2.30	N/A	12.5
195000	11.09	7.48	0.671	0.3	2.4	0.26	397	2.31	N/A	15.4&
200000	11.06	7.48	0.671	0.3	2.2	0.24	396	2.29	N/A	15.3&
201000	11.07	7.49	0.656	0.3	0.0	0.00	396	2.30	N/A	15.3&
202000	11.07	7.48	0.660	0.3	1.9	0.21	395	2.30	N/A	15.3&
203000	11.07	7.48	0.662	0.3	1.8	0.19	395	2.30	N/A	15.3&
204000	11.05	7.48	0.660	0.3	1.3	0.14	394	2.30	N/A	15.3&
205000	11.07	7.48	0.660	0.3	1.0	0.10	394	2.30	N/A	15.3&
210000	11.05	7.48	0.662	0.3	0.8	0.09	393	2.31	N/A	15.3&
211000	11.05	7.48	0.663	0.3	0.8	0.09	393	2.30	N/A	15.3&
212000	11.05	7.48	0.662	0.3	0.6	0.07	393	2.30	N/A	15.3&
213000	11.05	7.49	0.663	0.3	0.6	0.07	393	2.31	N/A	15.3&
214000	11.05	7.49	0.659	0.3	0.6	0.07	393	2.30	N/A	15.3&
215000	11.05	7.48	0.663	0.3	0.6	0.07	393	2.30	N/A	15.3&
220000	11.04	7.48	0.655	0.3	0.8	0.09	393	2.30	N/A	15.2&
221000	11.05	7.49	0.658	0.3	0.8	0.09	392	2.30	N/A	15.2&
222000	11.04	7.49	0.660	0.3	0.8	0.09	392	2.30	N/A	15.2&
223000	11.04	7.49	0.661	0.3	0.8	0.09	391	2.30	N/A	15.2&
224000	11.04	7.49	0.657	0.3	0.8	0.09	392	2.29	N/A	15.2&
225000	11.05	7.49	0.657	0.3	0.6	0.07	391	2.30	N/A	15.2&
230000	11.05	7.49	0.656	0.3	0.6	0.07	391	2.30	N/A	15.2&
231000	11.05	7.49	0.655	0.3	0.8	0.09	391	2.31	N/A	15.2&
232000	11.05	7.49	0.657	0.3	0.6	0.07	391	2.30	N/A	15.2&
233000	11.05	7.49	0.657	0.3	0.6	0.07	390	2.30	N/A	15.1&
234000	11.04	7.49	0.658	0.3	0.6	0.07	390	2.30	N/A	15.1&
235000	11.05	7.49	0.657	0.3	0.6	0.07	390	2.30	N/A	15.2&

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101795										
000000	11.05	7.49	0.657	0.3	0.6	0.07	389	2.31	N/A	15.1&
001000	11.04	7.49	0.659	0.3	0.6	0.07	389	2.31	N/A	15.2&
002000	11.04	7.49	0.657	0.3	0.6	0.07	389	2.31	N/A	15.2&
003000	11.04	7.49	0.654	0.3	0.6	0.07	388	2.30	N/A	15.1&
004000	11.04	7.49	0.654	0.3	0.6	0.07	388	2.30	N/A	15.2&
005000	11.04	7.49	0.658	0.3	0.6	0.07	388	2.30	N/A	15.2&
010000	11.05	7.49	0.658	0.3	0.6	0.07	387	2.30	N/A	15.2&
011000	11.04	7.49	0.657	0.3	0.6	0.07	387	2.30	N/A	15.1&
012000	11.05	7.49	0.656	0.3	0.6	0.07	387	2.30	N/A	15.1&
013000	11.04	7.49	0.656	0.3	0.6	0.07	387	2.30	N/A	15.2&
014000	11.04	7.49	0.656	0.3	0.6	0.07	387	2.30	N/A	15.1&
015000	11.02	7.49	0.657	0.3	0.6	0.07	387	2.30	N/A	15.1&
020000	11.05	7.49	0.657	0.3	0.6	0.07	386	2.30	N/A	15.1&
021000	11.02	7.49	0.660	0.3	0.6	0.07	387	2.30	N/A	15.1&
022000	11.05	7.49	0.658	0.3	0.6	0.07	386	2.30	N/A	15.1&
023000	11.04	7.49	0.658	0.3	0.6	0.07	386	2.30	N/A	15.1&
024000	11.02	7.50	0.659	0.3	0.8	0.09	386	2.30	N/A	15.1&
025000	11.04	7.50	0.659	0.3	0.8	0.09	386	2.30	N/A	15.1&
030000	11.02	7.49	0.659	0.3	0.8	0.09	386	2.29	N/A	15.1&
031000	11.05	7.50	0.658	0.3	0.8	0.09	386	2.30	N/A	15.1&
032000	11.04	7.50	0.658	0.3	0.8	0.09	385	2.30	N/A	15.1&
033000	11.04	7.50	0.659	0.3	0.8	0.09	385	2.30	N/A	15.1&
034000	11.04	7.50	0.659	0.3	0.6	0.07	385	2.30	N/A	15.1&
035000	11.04	7.50	0.659	0.3	0.6	0.07	385	2.30	N/A	15.1&
040000	11.04	7.50	0.660	0.3	0.6	0.07	385	2.30	N/A	15.0&
041000	11.02	7.50	0.661	0.3	0.8	0.09	384	2.30	N/A	15.1&
042000	11.02	7.50	0.661	0.3	0.6	0.07	384	2.30	N/A	15.1&
043000	11.02	7.50	0.661	0.3	0.8	0.09	384	2.30	N/A	15.1&
044000	11.04	7.50	0.662	0.3	0.6	0.07	383	2.30	N/A	15.1&
045000	11.02	7.50	0.662	0.3	0.6	0.07	383	2.30	N/A	15.1&
050000	11.04	7.50	0.662	0.3	0.6	0.07	383	2.30	N/A	15.1&
051000	11.02	7.50	0.662	0.3	0.8	0.09	383	2.30	N/A	15.1&
052000	11.04	7.50	0.663	0.3	0.8	0.09	382	2.30	N/A	15.0&
053000	11.02	7.50	0.663	0.3	0.8	0.09	382	2.30	N/A	15.1&
054000	11.02	7.50	0.665	0.3	0.8	0.09	381	2.30	N/A	15.1&
055000	11.04	7.50	0.665	0.3	0.8	0.09	381	2.30	N/A	15.1&
060000	11.02	7.50	0.664	0.3	0.8	0.09	380	2.29	N/A	15.0&
061000	11.04	7.50	0.664	0.3	0.8	0.09	380	2.30	N/A	15.1&
062000	11.04	7.50	0.664	0.3	0.8	0.09	379	2.30	N/A	15.1&
063000	11.04	7.50	0.664	0.3	0.6	0.07	379	2.30	N/A	15.1&
064000	11.04	7.50	0.664	0.3	0.8	0.09	378	2.30	N/A	15.1&
065000	11.04	7.50	0.664	0.3	0.6	0.07	377	2.30	N/A	15.1&
070000	11.02	7.50	0.665	0.3	0.8	0.09	377	2.29	N/A	15.1&
071000	11.02	7.50	0.667	0.3	0.8	0.09	377	2.30	N/A	15.0&
072000	11.04	7.50	0.667	0.3	0.8	0.09	376	2.30	N/A	15.1&
073000	11.04	7.50	0.666	0.3	0.8	0.09	376	2.30	N/A	15.0&
074000	11.04	7.50	0.666	0.3	0.8	0.09	375	2.30	N/A	15.0&
075000	11.02	7.50	0.666	0.3	0.8	0.09	375	2.31	N/A	15.1&

TABLE B-11
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
080000	11.02	7.50	0.666	0.3	0.6	0.07	374	2.30	N/A	15.0&
081000	11.02	7.50	0.667	0.3	0.8	0.09	374	2.30	N/A	15.0&
082000	11.02	7.50	0.667	0.3	0.6	0.07	373	2.30	N/A	15.1&
083000	11.04	7.50	0.667	0.3	0.8	0.09	373	2.30	N/A	15.0&
084000	11.02	7.49	0.667	0.3	0.8	0.09	373	2.29	N/A	15.1&
085000	11.04	7.50	0.667	0.3	0.8	0.09	372	2.30	N/A	15.0&
090000	11.04	7.50	0.667	0.3	0.6	0.07	371	2.31	N/A	15.0&
091000	11.04	7.50	0.667	0.3	0.6	0.07	371	2.31	N/A	15.0&
092000	11.04	7.50	0.667	0.3	0.8	0.09	370	2.30	N/A	15.0&
093000	11.04	7.50	0.667	0.3	0.8	0.09	370	2.30	N/A	15.0&
094000	11.02	7.49	0.667	0.3	0.8	0.09	370	2.30	N/A	15.0&
095000	11.02	7.50	0.668	0.3	0.6	0.07	369	2.31	N/A	15.1&
100000	11.02	7.50	0.668	0.3	0.8	0.09	369	2.29	N/A	15.0&
101000	11.02	7.50	0.668	0.3	0.8	0.09	368	2.30	N/A	15.0&
102000	11.04	7.50	0.668	0.3	0.6	0.07	368	2.30	N/A	15.1&
103000	11.02	7.50	0.669	0.3	0.8	0.09	368	2.29	N/A	15.1&
104000	11.02	7.50	0.669	0.3	0.8	0.09	368	2.29	N/A	15.0&

Recovery finished at 101795 104153

000184

TABLE B-12
WATER QUALITY IN WELL 31552
DURING 72-HOUR CONSTANT RATE INJECTION TEST
INCLUDING RECOVERY, 10/13/95 THROUGH 10/17/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 52CONT
Setup Date (MMDDYY): 101395
Setup Time (HHMMSS): 104356
Starting Date (MMDDYY): 101395
Starting Time (HHMMSS): 105000
Stopping Date (MMDDYY): 101795
Stopping Time (HHMMSS): 120000
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, TDS, Temperature compensated, A->Comp 1, A->Method 1
% Sat: 750.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Feet, Level
Turbidity: Ratio, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101395										
105000	10.95	7.16	1.012	0.647	30.8	3.35	304	2.18	N/A	12.7
110000	10.95	7.16	1.013	0.648	30.8	3.35	305	2.18	N/A	12.6
111000	10.94	7.16	1.012	0.648	30.9	3.35	305	2.18	N/A	12.6
112000	10.94	7.16	0.958	0.613	33.2	3.60	306	2.20	N/A	12.7
113000	10.94	7.16	0.956	0.612	33.3	3.62	307	2.21	N/A	12.6
114000	10.94	7.16	0.955	0.611	33.0	3.58	308	2.21	N/A	12.7
115000	10.94	7.16	0.956	0.612	33.0	3.58	309	2.21	N/A	12.7
120000	10.94	7.16	0.959	0.614	33.0	3.58	310	2.21	N/A	12.6
121000	10.94	7.16	0.960	0.614	33.2	3.60	310	2.21	N/A	12.7
122000	10.93	7.15	0.963	0.616	33.3	3.62	311	2.20	N/A	12.7
123000	10.94	7.16	0.963	0.617	33.3	3.62	311	2.21	N/A	12.7
124000	10.94	7.16	0.964	0.617	33.5	3.63	311	2.22	N/A	12.7
125000	10.94	7.16	0.965	0.618	33.5	3.63	312	2.22	N/A	12.8
130000	10.94	7.16	0.967	0.619	33.5	3.63	312	2.22	N/A	12.6
131000	10.94	7.15	0.968	0.620	33.5	3.63	313	2.22	N/A	12.7
132000	10.94	7.15	0.969	0.620	33.5	3.63	313	2.22	N/A	12.7
133000	10.94	7.15	0.970	0.621	33.5	3.63	313	2.22	N/A	12.7
134000	10.94	7.15	0.972	0.622	33.5	3.63	314	2.22	N/A	12.7
135000	10.94	7.15	0.975	0.624	33.5	3.63	315	2.22	N/A	12.7
140000	10.94	7.15	0.978	0.626	33.5	3.63	315	2.22	N/A	12.6
141000	10.94	7.15	0.980	0.628	33.8	3.67	316	2.22	N/A	12.7
142000	10.94	7.15	0.981	0.628	33.8	3.67	316	2.22	N/A	12.7
143000	10.94	7.15	0.985	0.631	33.8	3.67	316	2.22	N/A	12.7
144000	10.94	7.15	0.987	0.632	33.9	3.68	317	2.22	N/A	12.7
145000	10.94	7.15	0.991	0.634	34.1	3.70	317	2.22	N/A	12.7

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
150000	10.94	7.15	0.993	0.635	34.2	3.72	318	2.22	N/A	12.7
151000	10.94	7.15	0.995	0.637	34.7	3.77	318	2.22	N/A	12.7
152000	10.94	7.15	0.997	0.638	34.8	3.78	319	2.22	N/A	12.7
153000	10.94	7.15	1.000	0.640	35.0	3.80	319	2.22	N/A	12.7
154000	10.94	7.15	1.002	0.641	35.1	3.81	319	2.22	N/A	12.7
155000	10.94	7.15	1.005	0.643	35.4	3.85	320	2.22	N/A	12.8
160000	10.94	7.15	1.008	0.645	35.6	3.86	320	2.22	N/A	12.7
161000	10.94	7.15	1.010	0.646	35.8	3.88	321	2.22	N/A	12.7
162000	10.94	7.14	1.014	0.649	35.9	3.90	321	2.22	N/A	12.7
163000	10.92	7.14	1.017	0.651	36.1	3.92	322	2.22	N/A	12.7
164000	10.94	7.14	1.018	0.652	36.2	3.93	322	2.22	N/A	12.7
165000	10.94	7.14	1.021	0.654	36.4	3.95	323	2.22	N/A	12.7
170000	10.94	7.14	1.024	0.655	36.4	3.95	323	2.22	N/A	12.6
171000	10.94	7.14	1.025	0.656	36.5	3.96	323	2.22	N/A	12.7
172000	10.93	7.14	1.027	0.657	36.7	3.98	324	2.21	N/A	12.7
173000	10.93	7.14	1.028	0.658	36.8	4.00	324	2.21	N/A	12.7
174000	10.94	7.14	1.028	0.658	37.0	4.01	324	2.22	N/A	12.7
175000	10.94	7.14	1.025	0.656	37.1	4.03	325	2.22	N/A	12.7
180000	10.94	7.14	1.023	0.655	37.4	4.06	326	2.21	N/A	12.6
181000	10.94	7.14	1.018	0.652	37.6	4.08	326	2.22	N/A	12.7
182000	10.94	7.14	1.015	0.649	37.1	4.03	326	2.22	N/A	12.7
183000	10.94	7.14	1.010	0.646	36.8	4.00	327	2.22	N/A	12.9
184000	10.94	7.14	1.006	0.644	36.5	3.96	327	2.22	N/A	12.9
185000	10.94	7.14	0.999	0.640	35.9	3.90	328	2.22	N/A	12.9
190000	10.93	7.14	0.993	0.636	34.4	3.74	329	2.21	N/A	12.8
191000	10.94	7.14	0.986	0.631	34.7	3.77	329	2.22	N/A	12.9
192000	10.94	7.14	0.982	0.629	34.8	3.78	329	2.22	N/A	12.8
193000	10.94	7.14	0.979	0.626	34.5	3.75	329	2.22	N/A	12.9
194000	10.94	7.14	0.974	0.623	34.4	3.73	329	2.22	N/A	12.9
195000	10.94	7.14	0.968	0.620	31.2	3.38	329	2.22	N/A	12.9
200000	10.93	7.14	0.963	0.616	32.4	3.52	330	2.21	N/A	12.7
201000	10.94	7.15	0.955	0.611	33.6	3.65	329	2.22	N/A	12.9
202000	10.94	7.15	0.954	0.611	33.5	3.63	330	2.22	N/A	12.8
203000	10.94	7.15	0.971	0.621	33.2	3.60	330	2.22	N/A	12.8
204000	10.94	7.15	0.968	0.620	31.2	3.38	331	2.22	N/A	12.8
205000	10.94	7.15	0.946	0.606	0.0	0.00	332	2.22	N/A	12.8
210000	10.94	7.16	0.941	0.602	0.0	0.00	332	2.22	N/A	12.7
211000	10.94	7.15	0.938	0.600	31.3	3.40	332	2.22	N/A	12.8
212000	19.59	8.46	0.013	0.008	57.1	5.16	254	11.48	N/A	12.9
213000	18.97	8.23	0.014	0.009	56.1	5.14	254	11.02	N/A	15.8&
214000	12.00	7.13	0.936	0.599	44.5	4.71	320	2.21	N/A	15.8&
215000	11.41	7.14	0.891	0.570	34.0	3.65	319	2.21	N/A	15.9&
220000	11.22	7.14	0.862	0.552	30.5	3.29	321	2.21	N/A	15.7&
221000	11.04	7.16	0.853	0.546	28.8	3.12	320	2.22	N/A	15.8&
222000	11.00	7.16	0.853	0.546	27.9	3.02	321	2.22	N/A	15.8&
223000	10.99	7.16	0.850	0.544	27.4	2.98	321	2.22	N/A	15.8&
224000	10.97	7.14	0.849	0.543	26.1	2.83	322	2.22	N/A	15.8&
225000	10.97	7.15	0.850	0.544	27.0	2.93	322	2.22	N/A	15.8&
230000	10.97	7.17	0.844	0.540	26.4	2.87	323	2.21	N/A	15.8&

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
231000	10.97	7.15	0.844	0.540	27.6	3.00	323	2.22	N/A	15.7&
232000	10.95	7.16	0.838	0.536	28.9	3.13	323	2.22	N/A	15.7&
233000	10.95	7.18	0.837	0.536	28.1	3.05	323	2.22	N/A	15.7&
234000	10.95	7.17	0.833	0.533	26.9	2.92	323	2.22	N/A	15.7&
235000	10.95	7.17	0.829	0.530	26.4	2.87	324	2.22	N/A	15.7&
Date (MMDDYY): 101495										
000000	10.95	7.17	0.826	0.529	26.3	2.85	324	2.22	N/A	15.7&
001000	10.95	7.17	0.822	0.526	26.3	2.85	324	2.22	N/A	15.7&
002000	10.95	7.18	0.820	0.525	26.7	2.90	325	2.22	N/A	15.7&
003000	10.95	7.18	0.819	0.524	25.7	2.79	326	2.22	N/A	15.7&
004000	10.95	7.19	0.825	0.528	25.7	2.79	326	2.22	N/A	15.7&
005000	10.95	7.18	0.831	0.532	24.1	2.62	326	2.22	N/A	15.7&
010000	10.95	7.17	0.820	0.525	22.3	2.42	326	2.21	N/A	15.7&
011000	10.95	7.18	0.818	0.524	21.7	2.35	326	2.22	N/A	15.7&
012000	10.95	7.18	0.810	0.518	23.1	2.50	326	2.22	N/A	15.7&
013000	10.95	7.18	0.809	0.518	23.7	2.57	327	2.22	N/A	15.7&
014000	10.95	7.18	0.804	0.515	22.9	2.49	327	2.22	N/A	15.7&
015000	10.95	7.18	0.794	0.508	23.2	2.52	327	2.22	N/A	15.7&
020000	10.95	7.18	0.791	0.506	23.5	2.55	328	2.22	N/A	15.6&
021000	10.94	7.18	0.787	0.504	23.7	2.57	329	2.21	N/A	15.7&
022000	10.95	7.18	0.783	0.501	23.7	2.57	328	2.22	N/A	15.6&
023000	10.95	7.19	0.782	0.501	23.1	2.50	329	2.22	N/A	15.7&
024000	10.95	7.19	0.783	0.501	23.4	2.54	329	2.22	N/A	15.7&
025000	10.95	7.20	0.782	0.501	22.9	2.49	329	2.22	N/A	15.7&
030000	10.95	7.20	0.777	0.497	21.5	2.34	329	2.22	N/A	15.6&
031000	10.95	7.19	0.777	0.497	22.4	2.44	329	2.22	N/A	15.6&
032000	10.95	7.19	0.785	0.502	22.0	2.39	329	2.22	N/A	15.6&
033000	10.95	7.21	0.779	0.499	20.5	2.22	329	2.22	N/A	13.2
034000	10.95	7.20	0.779	0.499	21.1	2.29	330	2.22	N/A	13.1
035000	10.97	7.19	0.779	0.499	21.8	2.37	330	2.22	N/A	13.1
040000	10.95	7.21	0.777	0.498	21.2	2.31	330	2.21	N/A	12.9
041000	10.95	7.20	0.777	0.497	20.6	2.24	330	2.21	N/A	13.0
042000	10.94	7.20	0.787	0.504	20.9	2.27	331	2.20	N/A	12.8
043000	10.97	7.20	0.779	0.499	19.7	2.14	331	2.21	N/A	12.8
044000	10.97	7.20	0.782	0.501	18.9	2.05	330	2.21	N/A	12.9
045000	10.97	7.21	0.774	0.495	18.9	2.05	331	2.21	N/A	12.9
050000	10.97	7.21	0.773	0.495	19.5	2.12	332	2.20	N/A	12.8
051000	10.97	7.20	0.771	0.493	19.4	2.10	332	2.21	N/A	12.8
052000	10.97	7.21	0.771	0.493	19.8	2.15	332	2.21	N/A	12.9
053000	10.97	7.21	0.762	0.488	19.7	2.14	332	2.21	N/A	12.9
054000	10.97	7.21	0.767	0.491	19.8	2.15	332	2.20	N/A	12.9
055000	10.97	7.21	0.788	0.504	19.8	2.15	332	2.21	N/A	12.9
060000	10.97	7.22	0.779	0.499	19.5	2.12	332	2.21	N/A	12.8
061000	10.97	7.22	0.774	0.495	19.2	2.09	332	2.22	N/A	12.9
062000	10.97	7.22	0.763	0.488	19.2	2.09	333	2.22	N/A	12.9
063000	10.97	7.22	0.763	0.488	18.9	2.05	333	2.22	N/A	12.9
064000	10.96	7.22	0.768	0.492	19.5	2.12	334	2.21	N/A	12.9
065000	10.99	7.23	0.759	0.486	18.8	2.04	334	2.22	N/A	12.9

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
070000	10.99	7.22	0.763	0.488	18.8	2.04	336	2.22	N/A	12.7
071000	17.89	8.13	0.011	0.007	55.8	5.22	273	1.32	N/A	12.8
072000	11.79	7.15	0.846	0.541	55.8	5.94	325	2.22	N/A	12.9
073000	11.34	7.21	0.777	0.497	24.5	2.64	325	2.22	N/A	12.9
074000	11.09	7.21	0.765	0.489	0.0	0.00	326	2.22	N/A	12.8
075000	11.04	7.24	0.772	0.494	18.7	2.03	326	2.22	N/A	12.9
080000	11.00	7.24	0.746	0.477	16.8	1.82	326	2.22	N/A	12.7
081000	10.99	7.23	0.828	0.530	16.2	1.75	327	2.22	N/A	12.8
082000	11.00	7.26	0.838	0.536	15.5	1.69	327	2.22	N/A	12.8
083000	11.00	7.23	0.841	0.538	16.5	1.78	328	2.22	N/A	12.8
084000	10.99	7.25	0.839	0.537	17.4	1.89	329	2.21	N/A	12.8
085000	11.00	7.25	0.834	0.534	16.9	1.83	329	2.22	N/A	12.8
090000	11.00	7.25	0.835	0.534	17.5	1.90	329	2.22	N/A	12.7
091000	11.00	7.23	0.839	0.537	16.6	1.80	330	2.22	N/A	12.7
092000	11.00	7.24	0.848	0.543	16.8	1.82	331	2.21	N/A	12.8
093000	11.00	7.24	0.901	0.577	14.8	1.60	331	2.22	N/A	12.8
094000	11.00	7.27	0.827	0.529	17.1	1.85	331	2.22	N/A	12.8
095000	11.00	7.23	0.833	0.533	16.5	1.78	332	2.22	N/A	12.8
100000	10.99	7.25	0.864	0.553	16.0	1.74	333	2.21	N/A	12.7
101000	11.02	7.26	0.827	0.530	16.6	1.80	332	2.22	N/A	12.8
102000	11.00	7.24	0.826	0.528	16.3	1.77	332	2.22	N/A	12.8
103000	11.02	7.25	0.827	0.530	16.1	1.75	333	2.22	N/A	12.8
104000	11.02	7.27	0.827	0.530	15.5	1.68	333	2.22	N/A	12.8
105000	11.02	7.25	0.826	0.529	16.3	1.77	333	2.23	N/A	12.8
110000	11.00	7.26	0.831	0.532	16.2	1.75	334	2.22	N/A	12.7
111000	11.02	7.26	0.861	0.551	16.1	1.75	334	2.22	N/A	12.8
112000	11.02	7.25	0.845	0.541	16.4	1.78	334	2.22	N/A	12.8
113000	11.02	7.25	0.824	0.527	16.6	1.80	334	2.23	N/A	12.8
114000	11.04	7.25	0.824	0.527	16.7	1.81	335	2.22	N/A	12.8
115000	11.04	7.26	0.810	0.519	16.0	1.73	334	2.23	N/A	12.8
120000	11.02	7.27	0.805	0.515	15.5	1.68	335	2.22	N/A	12.7
121000	11.04	7.28	0.830	0.531	14.8	1.60	335	2.22	N/A	12.8
122000	11.04	7.27	0.799	0.511	14.6	1.58	335	2.22	N/A	12.8
123000	11.04	7.27	0.808	0.517	14.0	1.52	336	2.22	N/A	12.8
124000	11.04	7.28	0.797	0.510	14.3	1.55	336	2.22	N/A	12.7
125000	11.04	7.28	0.783	0.501	14.8	1.60	336	2.23	N/A	12.8
130000	11.04	7.29	0.789	0.505	14.3	1.55	337	2.21	N/A	12.7
131000	11.05	7.26	0.787	0.504	14.4	1.57	337	2.22	N/A	12.8
132000	11.05	7.27	0.801	0.512	14.8	1.60	337	2.22	N/A	12.8
133000	11.05	7.26	0.790	0.506	14.3	1.55	338	2.22	N/A	12.8
134000	11.05	7.27	0.796	0.509	14.3	1.55	338	2.23	N/A	12.8
135000	11.07	7.25	0.791	0.506	14.6	1.58	339	2.22	N/A	12.8
140000	11.05	7.29	0.784	0.502	15.1	1.63	339	2.22	N/A	12.7
141000	11.07	7.29	0.788	0.505	14.9	1.61	338	2.22	N/A	12.8
142000	11.05	7.29	0.768	0.491	15.2	1.65	338	2.22	N/A	12.8
143000	11.07	7.28	0.781	0.500	14.3	1.55	338	2.22	N/A	12.8
144000	11.07	7.29	0.783	0.501	14.6	1.58	339	2.22	N/A	12.8
145000	11.07	7.28	0.778	0.498	14.7	1.60	340	2.22	N/A	12.8
150000	11.09	7.29	0.757	0.484	14.7	1.60	339	2.22	N/A	12.7

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
151000	11.09	7.28	0.787	0.504	14.1	1.53	340	2.22	N/A	12.8
152000	11.09	7.29	0.750	0.480	13.5	1.46	339	2.22	N/A	12.8
153000	11.09	7.29	0.769	0.492	12.9	1.40	340	2.22	N/A	12.8
154000	11.09	7.29	0.752	0.481	12.8	1.38	340	2.22	N/A	12.8
155000	11.09	7.29	0.748	0.479	13.1	1.41	340	2.22	N/A	12.8
160000	11.10	7.30	0.743	0.475	13.1	1.41	341	2.21	N/A	12.7
161000	11.10	7.29	0.772	0.494	13.5	1.46	339	2.22	N/A	12.8
162000	11.10	7.30	0.770	0.493	13.7	1.48	340	2.22	N/A	12.8
163000	11.12	7.29	0.778	0.498	13.5	1.46	340	2.22	N/A	12.8
164000	11.12	7.28	0.769	0.492	13.8	1.49	340	2.22	N/A	12.8
165000	11.10	7.30	0.762	0.487	14.1	1.53	341	2.22	N/A	12.8
170000	11.12	7.30	0.774	0.495	14.1	1.53	341	2.22	N/A	12.7
171000	11.12	7.30	0.758	0.485	14.4	1.56	341	2.22	N/A	12.9
172000	11.12	7.29	0.750	0.480	14.3	1.54	341	2.22	N/A	12.8
173000	11.11	7.29	0.732	0.468	14.0	1.51	341	2.21	N/A	12.8
174000	11.12	7.30	0.738	0.472	13.8	1.49	340	2.22	N/A	12.8
175000	11.13	7.29	0.757	0.484	13.5	1.46	341	2.22	N/A	12.8
180000	11.12	7.29	0.771	0.493	12.6	1.36	342	2.22	N/A	12.7
181000	11.13	7.30	0.753	0.482	12.7	1.38	341	2.22	N/A	12.8
182000	11.11	7.30	0.746	0.477	12.9	1.40	341	2.22	N/A	12.8
183000	11.13	7.30	0.759	0.486	13.0	1.41	342	2.22	N/A	12.8
184000	11.13	7.29	0.747	0.478	12.9	1.39	341	2.23	N/A	12.8
185000	11.15	7.29	0.731	0.468	12.7	1.38	341	2.23	N/A	12.8
190000	11.13	7.30	0.770	0.493	12.7	1.38	341	2.23	N/A	12.7
191000	11.13	7.30	0.739	0.473	12.3	1.33	341	2.23	N/A	12.8
192000	11.15	7.30	0.755	0.483	10.9	1.18	341	2.23	N/A	12.8
193000	11.15	7.30	0.725	0.464	11.5	1.24	340	2.23	N/A	12.8
194000	11.17	7.31	0.753	0.482	11.5	1.24	340	2.23	N/A	12.8
195000	11.17	7.30	0.746	0.478	11.5	1.24	341	2.23	N/A	12.8
200000	11.17	7.30	0.759	0.485	11.7	1.26	341	2.23	N/A	12.7
201000	11.17	7.31	0.742	0.475	0.0	0.00	342	2.23	N/A	12.8
202000	11.15	7.30	0.734	0.470	11.5	1.24	341	2.23	N/A	12.8
203000	11.15	7.31	0.751	0.481	11.5	1.24	342	2.23	N/A	12.8
204000	11.17	7.30	0.784	0.502	11.5	1.24	342	2.23	N/A	12.8
205000	11.17	7.31	0.735	0.470	9.5	1.03	341	2.23	N/A	12.8
210000	11.17	7.30	0.721	0.461	14.7	1.59	341	2.22	N/A	12.7
211000	11.17	7.31	0.739	0.473	11.2	1.21	340	2.23	N/A	12.8
212000	15.81	8.36	0.007	0.004	64.9	6.34	283	14.09	N/A	12.8
213000	14.29	8.12	0.010	0.007	67.2	6.79	295	14.16	N/A	12.8
214000	11.71	7.23	0.737	0.471	59.4	6.34	342	2.22	N/A	12.7
215000	11.45	7.26	0.728	0.466	24.8	2.67	339	2.23	N/A	15.6&
220000	11.31	7.29	0.691	0.442	20.2	2.17	339	2.23	N/A	15.6&
221000	11.28	7.29	0.684	0.438	15.7	1.69	339	2.23	N/A	15.6&
222000	11.25	7.29	0.682	0.436	16.9	1.82	337	2.23	N/A	15.6&
223000	11.23	7.29	0.680	0.435	15.5	1.68	337	2.23	N/A	15.5&
224000	11.23	7.29	0.678	0.434	12.2	1.32	338	2.23	N/A	15.5&
225000	11.23	7.29	0.677	0.433	11.3	1.22	337	2.23	N/A	15.5&
230000	11.22	7.29	0.676	0.433	11.0	1.19	337	2.23	N/A	15.5&
231000	11.23	7.30	0.674	0.431	11.0	1.19	336	2.23	N/A	15.5&

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
232000	11.23	7.31	0.674	0.431	11.0	1.19	334	2.23	N/A	15.5&
233000	11.22	7.30	0.673	0.431	11.3	1.22	334	2.22	N/A	15.5&
234000	11.20	7.30	0.673	0.431	11.2	1.21	333	2.22	N/A	15.5&
235000	11.23	7.30	0.673	0.431	11.0	1.19	332	2.23	N/A	15.5&
Date (MMDDYY): 101595										
000000	11.20	7.30	0.673	0.431	11.2	1.21	332	2.22	N/A	15.5&
001000	11.22	7.30	0.673	0.431	11.0	1.19	330	2.23	N/A	15.5&
002000	11.23	7.31	0.673	0.431	11.2	1.21	330	2.23	N/A	15.5&
003000	11.22	7.30	0.673	0.431	11.2	1.21	329	2.23	N/A	15.5&
004000	11.22	7.30	0.672	0.430	11.2	1.21	329	2.23	N/A	15.5&
005000	11.23	7.31	0.672	0.430	11.2	1.21	329	2.23	N/A	15.5&
010000	11.22	7.31	0.672	0.430	11.2	1.21	327	2.23	N/A	15.4&
011000	11.23	7.31	0.672	0.430	11.0	1.19	326	2.23	N/A	15.5&
012000	11.22	7.30	0.672	0.430	11.0	1.19	326	2.23	N/A	15.5&
013000	11.23	7.31	0.672	0.430	11.2	1.21	325	2.23	N/A	15.5&
014000	11.23	7.31	0.672	0.430	11.0	1.19	325	2.23	N/A	15.4&
015000	11.23	7.31	0.672	0.430	11.2	1.21	324	2.23	N/A	15.5&
020000	11.23	7.30	0.672	0.430	11.2	1.21	325	2.22	N/A	15.4&
021000	11.23	7.32	0.672	0.430	11.2	1.21	323	2.23	N/A	15.4&
022000	11.23	7.31	0.672	0.430	11.2	1.21	323	2.23	N/A	15.4&
023000	11.23	7.31	0.672	0.430	11.2	1.21	322	2.23	N/A	15.4&
024000	11.23	7.31	0.672	0.430	11.2	1.21	322	2.23	N/A	15.4&
025000	11.23	7.31	0.672	0.430	11.2	1.21	322	2.23	N/A	15.4&
030000	11.23	7.32	0.672	0.430	11.2	1.21	321	2.22	N/A	15.4&
031000	11.25	7.31	0.672	0.430	11.2	1.20	320	2.23	N/A	15.4&
032000	11.23	7.31	0.672	0.430	11.2	1.21	319	2.23	N/A	15.4&
033000	11.22	7.32	0.678	0.434	11.0	1.19	318	2.22	N/A	15.4&
034000	11.23	7.31	0.683	0.437	11.2	1.21	319	2.22	N/A	15.4&
035000	11.22	7.31	0.697	0.446	11.2	1.21	319	2.22	N/A	15.4&
040000	11.22	7.32	0.698	0.447	11.0	1.19	318	2.22	N/A	15.3&
041000	11.22	7.32	0.705	0.451	11.0	1.19	317	2.22	N/A	15.4&
042000	11.22	7.32	0.709	0.454	11.0	1.19	316	2.22	N/A	15.4&
043000	11.23	7.32	0.711	0.455	11.0	1.19	316	2.22	N/A	15.3&
044000	11.23	7.32	0.704	0.451	11.0	1.19	315	2.22	N/A	15.3&
045000	11.25	7.32	0.695	0.445	10.9	1.17	314	2.22	N/A	15.4&
050000	11.23	7.32	0.690	0.442	10.9	1.17	313	2.22	N/A	15.5&
051000	11.23	7.32	0.681	0.436	11.0	1.19	313	2.22	N/A	15.3&
052000	11.23	7.32	0.675	0.432	11.0	1.19	313	2.22	N/A	15.3&
053000	11.24	7.31	0.672	0.430	11.0	1.19	313	2.21	N/A	15.3&
054000	11.24	7.31	0.672	0.430	11.0	1.19	313	2.21	N/A	15.3&
055000	11.23	7.32	0.672	0.430	11.0	1.19	313	2.23	N/A	15.3&
060000	11.25	7.32	0.672	0.430	11.0	1.19	313	2.23	N/A	15.3&
061000	11.25	7.31	0.672	0.430	11.0	1.19	313	2.23	N/A	15.3&
062000	11.25	7.32	0.672	0.430	11.0	1.19	313	2.23	N/A	15.3&
063000	11.25	7.32	0.671	0.430	11.0	1.19	313	2.23	N/A	15.2&
064000	11.25	7.32	0.672	0.430	11.0	1.19	313	2.23	N/A	15.3&
065000	11.25	7.32	0.671	0.430	11.0	1.19	314	2.23	N/A	15.3&
070000	11.23	7.32	0.671	0.430	11.0	1.19	314	2.23	N/A	15.3&

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
071000	11.25	7.32	0.671	0.430	10.7	1.16	314	2.23	N/A	15.3&
072000	11.23	7.32	0.671	0.430	10.7	1.16	313	2.23	N/A	15.3&
073000	11.25	7.32	0.671	0.430	10.7	1.16	313	2.23	N/A	15.3&
074000	11.25	7.32	0.671	0.430	10.7	1.16	313	2.23	N/A	15.3&
075000	11.23	7.32	0.671	0.430	10.9	1.17	313	2.23	N/A	15.3&
080000	11.25	7.32	0.671	0.430	10.9	1.17	313	2.23	N/A	15.3&
081000	11.25	7.33	0.669	0.428	0.0	0.00	312	2.23	N/A	15.3&
082000	13.35	8.31	0.014	0.009	56.4	5.82	258	0.44	N/A	15.3&
083000	11.64	8.19	0.018	0.011	51.4	5.51	253	0.42	N/A	15.3&
084000	11.00	8.16	0.016	0.010	48.5	5.27	249	0.43	N/A	15.3&
085000	11.28	7.31	0.668	0.428	31.6	3.41	297	2.23	N/A	15.2&
090000	11.28	7.33	0.670	0.429	14.8	1.59	300	2.25	N/A	15.2&
091000	11.31	7.33	0.672	0.430	9.8	1.05	302	2.23	N/A	15.3&
092000	11.30	7.33	0.672	0.430	12.0	1.30	301	2.23	N/A	15.2&
093000	11.30	7.32	0.671	0.429	12.3	1.33	301	2.25	N/A	15.2&
094000	11.27	7.33	0.670	0.429	10.7	1.15	300	2.23	N/A	15.2&
095000	11.27	7.32	0.670	0.429	12.1	1.30	301	2.22	N/A	15.2&
100000	11.25	7.32	0.671	0.430	12.5	1.35	300	2.25	N/A	13.0
101000	11.27	7.32	0.671	0.429	12.8	1.38	300	2.25	N/A	13.0
102000	11.25	7.32	0.671	0.430	12.5	1.35	300	2.23	N/A	12.6
103000	11.25	7.32	0.671	0.430	13.0	1.40	300	2.22	N/A	12.6
104000	11.25	7.32	0.671	0.430	12.8	1.38	300	2.22	N/A	12.7
105000	11.25	7.32	0.671	0.430	12.7	1.37	300	2.23	N/A	12.7
110000	11.25	7.32	0.671	0.430	12.7	1.37	300	2.22	N/A	12.6
111000	11.23	7.32	0.671	0.430	12.5	1.35	300	2.23	N/A	12.7
112000	11.24	7.32	0.671	0.430	12.4	1.34	300	2.22	N/A	12.7
113000	11.25	7.33	0.671	0.430	12.2	1.32	300	2.23	N/A	12.7
114000	11.25	7.32	0.671	0.430	12.1	1.30	299	2.23	N/A	12.8
115000	11.23	7.32	0.675	0.432	11.9	1.29	299	2.23	N/A	12.8
120000	11.22	7.32	0.677	0.433	11.6	1.26	299	2.22	N/A	12.6
121000	11.25	7.32	0.679	0.434	11.6	1.25	299	2.23	N/A	12.7
122000	11.25	7.32	0.678	0.434	11.6	1.25	298	2.23	N/A	12.8
123000	11.23	7.32	0.676	0.433	11.6	1.25	298	2.23	N/A	12.7
124000	11.25	7.32	0.675	0.432	11.6	1.25	298	2.23	N/A	12.8
125000	11.23	7.32	0.674	0.431	11.5	1.24	298	2.23	N/A	12.8
130000	11.24	7.32	0.672	0.430	11.5	1.24	298	2.22	N/A	12.6
131000	11.25	7.32	0.672	0.430	11.3	1.22	298	2.23	N/A	12.7
132000	11.25	7.32	0.671	0.430	11.3	1.22	298	2.23	N/A	12.7
133000	11.25	7.32	0.671	0.430	11.3	1.22	298	2.22	N/A	12.7
134000	11.25	7.32	0.671	0.430	11.3	1.22	297	2.23	N/A	12.7
135000	11.25	7.32	0.671	0.430	11.2	1.20	297	2.23	N/A	12.7
140000	11.25	7.32	0.671	0.430	11.2	1.20	297	2.22	N/A	12.6
141000	11.25	7.33	0.671	0.430	11.0	1.19	297	2.23	N/A	12.7
142000	11.25	7.33	0.671	0.430	11.0	1.19	297	2.22	N/A	12.7
143000	11.25	7.33	0.671	0.430	11.0	1.19	297	2.22	N/A	12.7
144000	11.25	7.33	0.671	0.430	11.0	1.19	297	2.22	N/A	12.7
145000	11.28	7.33	0.670	0.429	11.1	1.20	296	2.23	N/A	12.7
150000	11.27	7.33	0.670	0.429	11.2	1.20	297	2.22	N/A	12.7
151000	11.27	7.33	0.670	0.429	11.2	1.20	296	2.23	N/A	12.7

TABLE B-12
(Continued).

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
152000	11.27	7.33	0.671	0.429	11.2	1.20	296	2.23	N/A	12.7
153000	11.27	7.33	0.671	0.429	11.2	1.20	296	2.23	N/A	12.7
154000	11.27	7.33	0.671	0.429	11.2	1.20	296	2.23	N/A	12.7
155000	11.27	7.33	0.671	0.429	11.2	1.20	295	2.23	N/A	12.7
160000	11.27	7.33	0.670	0.429	11.3	1.22	295	2.23	N/A	12.6
161000	11.27	7.33	0.670	0.429	11.5	1.24	295	2.23	N/A	12.7
162000	11.27	7.33	0.671	0.429	11.6	1.25	295	2.23	N/A	12.7
163000	11.25	7.33	0.671	0.430	11.8	1.27	295	2.23	N/A	12.7
164000	11.27	7.33	0.670	0.429	12.1	1.30	295	2.23	N/A	12.7
165000	11.25	7.33	0.670	0.429	12.4	1.33	295	2.23	N/A	12.7
170000	11.27	7.32	0.671	0.429	12.7	1.37	295	2.22	N/A	12.6
171000	11.25	7.32	0.670	0.429	13.1	1.42	295	2.22	N/A	12.6
172000	11.27	7.33	0.670	0.429	13.6	1.46	295	2.23	N/A	12.7
173000	11.27	7.32	0.671	0.429	14.0	1.51	295	2.22	N/A	12.7
174000	11.25	7.32	0.670	0.429	14.5	1.56	295	2.22	N/A	12.7
175000	11.27	7.33	0.671	0.429	14.9	1.61	295	2.23	N/A	12.7
180000	11.27	7.33	0.671	0.429	15.4	1.66	295	2.23	N/A	12.6
181000	11.27	7.33	0.671	0.429	16.0	1.72	295	2.23	N/A	12.7
182000	11.28	7.33	0.671	0.429	16.4	1.77	296	2.23	N/A	12.7
183000	11.27	7.33	0.672	0.430	16.9	1.82	296	2.23	N/A	12.7
184000	11.27	7.33	0.672	0.430	17.5	1.89	296	2.23	N/A	12.7
185000	11.25	7.33	0.672	0.430	18.0	1.94	297	2.22	N/A	12.7
190000	11.27	7.33	0.672	0.430	18.5	2.00	297	2.22	N/A	12.6
191000	11.27	7.33	0.672	0.430	19.1	2.07	297	2.23	N/A	12.7
192000	11.27	7.33	0.672	0.430	14.6	1.58	297	2.23	N/A	12.7
193000	11.27	7.33	0.673	0.431	17.2	1.85	298	2.23	N/A	12.7
194000	11.28	7.33	0.672	0.430	20.8	2.24	299	2.23	N/A	12.7
195000	11.28	7.33	0.672	0.430	18.2	1.97	300	2.23	N/A	12.7
200000	11.28	7.33	0.671	0.429	28.6	3.09	300	2.23	N/A	12.6
201000	11.28	7.33	0.671	0.429	22.3	2.40	301	2.22	N/A	12.5
202000	11.28	7.33	0.671	0.429	22.9	2.47	301	2.23	N/A	12.6
203000	11.27	7.33	0.672	0.430	21.4	2.31	302	2.23	N/A	12.6
204000	11.28	7.33	0.673	0.431	23.7	2.55	303	2.23	N/A	12.6
205000	11.28	7.33	0.674	0.431	24.0	2.58	303	2.23	N/A	12.6
210000	11.30	7.34	0.671	0.429	24.2	2.61	304	2.23	N/A	12.5
211000	10.19	8.09	0.010	0.006	73.9	8.20	267	6.77	N/A	12.6
212000	9.07	7.90	0.010	0.006	73.8	8.40	278	6.88	N/A	12.6
213000	11.28	7.36	0.675	0.432	32.2	3.48	302	2.25	N/A	12.6
214000	11.28	7.34	0.675	0.432	24.3	2.62	305	2.25	N/A	15.4&
215000	11.28	7.33	0.674	0.431	29.7	3.20	304	2.25	N/A	15.3&
220000	11.28	7.33	0.674	0.431	29.5	3.18	306	2.25	N/A	15.3&
221000	11.28	7.33	0.674	0.431	28.6	3.09	306	2.25	N/A	15.3&
222000	11.28	7.33	0.674	0.431	28.2	3.04	307	2.25	N/A	15.3&
223000	11.28	7.33	0.674	0.431	27.9	3.01	307	2.25	N/A	15.3&
224000	11.30	7.33	0.674	0.431	27.5	2.97	307	2.25	N/A	15.3&
225000	11.30	7.33	0.674	0.431	27.5	2.97	308	2.25	N/A	15.3&
230000	11.30	7.34	0.674	0.431	27.2	2.94	308	2.25	N/A	15.3&
231000	11.27	7.33	0.674	0.431	27.4	2.96	309	2.24	N/A	15.3&

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
232000	11.30	7.33	0.674	0.431	27.2	2.94	308	2.25	N/A	15.3&
233000	11.30	7.33	0.675	0.432	27.2	2.94	309	2.25	N/A	15.2&
234000	11.30	7.33	0.674	0.431	27.2	2.94	309	2.25	N/A	15.3&
235000	11.28	7.34	0.674	0.431	27.1	2.92	309	2.25	N/A	15.2&
Date (MMDDYY): 101695										
000000	11.30	7.33	0.674	0.431	27.1	2.92	310	2.25	N/A	15.2&
001000	11.28	7.33	0.674	0.431	27.0	2.91	310	2.25	N/A	15.2&
002000	11.30	7.33	0.674	0.431	27.1	2.92	310	2.25	N/A	15.2&
003000	11.28	7.33	0.674	0.431	27.1	2.92	310	2.25	N/A	15.2&
004000	11.28	7.34	0.674	0.431	27.0	2.91	310	2.25	N/A	15.2&
005000	11.30	7.34	0.673	0.431	26.8	2.89	310	2.25	N/A	15.2&
010000	11.28	7.33	0.674	0.431	26.5	2.86	311	2.25	N/A	15.1&
011000	11.30	7.33	0.673	0.431	27.1	2.92	311	2.23	N/A	15.2&
012000	11.30	7.34	0.674	0.431	26.8	2.89	311	2.23	N/A	15.2&
013000	11.30	7.34	0.673	0.431	26.6	2.87	311	2.25	N/A	15.1&
014000	11.30	7.34	0.676	0.432	26.9	2.90	311	2.25	N/A	15.2&
015000	11.30	7.34	0.677	0.433	26.9	2.90	312	2.25	N/A	15.2&
020000	11.30	7.33	0.676	0.432	26.9	2.90	312	2.23	N/A	15.2&
021000	11.30	7.34	0.676	0.432	26.9	2.90	312	2.25	N/A	15.1&
022000	11.30	7.34	0.676	0.432	26.9	2.90	312	2.25	N/A	15.2&
023000	11.30	7.34	0.676	0.432	26.9	2.90	312	2.25	N/A	15.2&
024000	11.30	7.34	0.675	0.432	26.9	2.90	312	2.25	N/A	15.1&
025000	11.30	7.34	0.675	0.432	26.9	2.90	313	2.25	N/A	15.1&
030000	11.30	7.34	0.675	0.432	26.9	2.90	313	2.25	N/A	15.1&
031000	11.30	7.34	0.674	0.431	27.1	2.92	313	2.25	N/A	15.1&
032000	11.30	7.34	0.674	0.431	27.2	2.94	314	2.25	N/A	15.1&
033000	11.30	7.34	0.674	0.431	27.2	2.94	314	2.25	N/A	15.1&
034000	11.30	7.34	0.674	0.431	27.2	2.94	314	2.25	N/A	15.1&
035000	11.30	7.34	0.674	0.431	27.4	2.95	315	2.25	N/A	15.1&
040000	11.30	7.34	0.674	0.431	27.5	2.97	315	2.25	N/A	15.1&
041000	11.30	7.34	0.674	0.431	27.7	2.99	315	2.25	N/A	15.0&
042000	11.30	7.34	0.674	0.431	27.9	3.00	316	2.25	N/A	15.1&
043000	11.30	7.34	0.674	0.431	28.0	3.02	316	2.25	N/A	15.1&
044000	11.30	7.34	0.674	0.431	28.0	3.02	316	2.25	N/A	15.1&
045000	11.30	7.34	0.674	0.431	28.0	3.02	316	2.25	N/A	15.1&
050000	11.30	7.34	0.674	0.431	28.2	3.03	317	2.25	N/A	15.0&
051000	11.31	7.34	0.674	0.431	28.1	3.03	317	2.25	N/A	13.1
052000	11.30	7.34	0.674	0.431	28.2	3.03	317	2.25	N/A	13.0
053000	11.30	7.34	0.674	0.431	28.2	3.03	317	2.26	N/A	13.0
054000	11.30	7.34	0.674	0.431	28.2	3.03	318	2.26	N/A	13.0
055000	11.31	7.34	0.674	0.431	28.3	3.05	318	2.26	N/A	13.0
060000	11.30	7.34	0.673	0.431	28.2	3.03	318	2.26	N/A	12.8
061000	11.30	7.34	0.673	0.431	28.3	3.05	319	2.26	N/A	12.9
062000	11.31	7.34	0.673	0.431	28.1	3.03	319	2.26	N/A	12.9
063000	11.30	7.34	0.673	0.431	28.2	3.03	319	2.26	N/A	12.9
064000	11.30	7.34	0.673	0.431	28.2	3.03	319	2.26	N/A	12.9
065000	11.30	7.34	0.673	0.431	28.2	3.03	320	2.25	N/A	12.7
070000	11.31	7.34	0.672	0.430	28.0	3.02	319	2.26	N/A	12.7
071000	11.31	7.34	0.673	0.431	28.0	3.02	320	2.26	N/A	12.8

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
072000	11.31	7.34	0.672	0.430	28.0	3.02	320	2.26	N/A	12.9
073000	11.31	7.34	0.672	0.430	28.0	3.02	320	2.26	N/A	12.8
074000	11.30	7.34	0.672	0.430	27.9	3.00	321	2.26	N/A	12.8
075000	11.31	7.34	0.672	0.430	27.8	3.00	321	2.26	N/A	12.9
080000	11.30	7.34	0.672	0.430	27.7	2.99	322	2.25	N/A	12.7
081000	11.31	7.34	0.672	0.430	27.7	2.98	322	2.26	N/A	12.7
082000	11.30	7.34	0.672	0.430	27.7	2.99	322	2.26	N/A	12.8
083000	11.31	7.34	0.672	0.430	26.3	2.84	322	2.26	N/A	12.8
084000	11.31	7.34	0.672	0.430	27.5	2.97	323	2.25	N/A	12.8
085000	11.30	7.34	0.672	0.430	27.5	2.97	323	2.25	N/A	12.8
090000	11.00	7.38	0.619	0.396	27.6	2.99	322	1.48	N/A	12.7
091000	12.40	8.92	0.012	0.008	51.0	5.37	208	0.56	N/A	12.8
092000	11.69	8.79	0.011	0.007	48.9	5.24	206	0.55	N/A	12.8
093000	10.59	8.60	0.011	0.007	47.7	5.24	219	0.53	N/A	12.8
094000	9.84	8.16	0.510	0.326	52.6	5.87	261	2.26	N/A	12.8
095000	9.87	8.07	0.498	0.319	58.8	6.55	268	2.26	N/A	12.8
100000	10.14	7.97	0.550	0.352	49.4	5.48	274	2.26	N/A	12.7
101000	10.41	7.74	0.605	0.387	39.3	4.33	283	2.26	N/A	12.8
102000	10.61	7.55	0.640	0.410	33.6	3.68	290	2.26	N/A	12.7
103000	10.73	7.48	0.657	0.420	31.4	3.43	296	2.26	N/A	12.7
104000	10.87	7.45	0.670	0.429	29.9	3.25	299	2.26	N/A	12.8
105000	10.97	7.43	0.672	0.430	28.8	3.13	302	2.26	N/A	12.8
110000	11.02	7.41	0.676	0.433	28.3	3.07	304	2.26	N/A	12.7
111000	11.09	7.40	0.676	0.432	27.5	2.98	305	2.27	N/A	12.8
112000	11.12	7.39	0.675	0.432	28.1	3.04	306	2.27	N/A	12.8
113000	11.15	7.38	0.675	0.432	28.0	3.03	307	2.27	N/A	12.8
114000	11.18	7.38	0.674	0.431	27.8	3.01	308	2.27	N/A	12.8
115000	11.20	7.37	0.675	0.432	28.0	3.02	309	2.26	N/A	12.8
120000	11.22	7.37	0.676	0.433	27.8	3.00	310	2.26	N/A	12.7
121000	11.23	7.37	0.680	0.435	27.6	2.98	310	2.26	N/A	12.8
122000	11.25	7.36	0.690	0.442	27.5	2.96	311	2.26	N/A	12.8
123000	11.25	7.36	0.683	0.437	27.3	2.95	311	2.27	N/A	12.8
124000	11.27	7.36	0.694	0.444	27.0	2.91	312	2.27	N/A	12.8
125000	11.28	7.36	0.696	0.445	26.8	2.89	312	2.27	N/A	12.8
130000	11.28	7.36	0.697	0.446	26.5	2.86	313	2.27	N/A	12.7
131000	11.28	7.36	0.697	0.446	26.5	2.86	313	2.27	N/A	12.8
132000	11.30	7.36	0.698	0.447	26.5	2.86	313	2.26	N/A	12.8
133000	11.30	7.36	0.699	0.448	26.2	2.82	313	2.26	N/A	12.8
134000	11.30	7.36	0.699	0.448	26.2	2.82	314	2.26	N/A	12.8
135000	11.31	7.36	0.704	0.451	26.0	2.80	314	2.27	N/A	12.8
140000	11.31	7.36	0.704	0.451	26.0	2.80	315	2.27	N/A	12.7
141000	11.31	7.36	0.704	0.451	25.7	2.77	315	2.26	N/A	12.8
142000	11.31	7.35	0.705	0.451	25.6	2.76	316	2.27	N/A	12.8
143000	11.30	7.35	0.705	0.451	25.4	2.74	316	2.26	N/A	12.8
144000	11.33	7.35	0.701	0.449	25.0	2.69	316	2.27	N/A	12.8
145000	11.31	7.35	0.707	0.452	24.7	2.66	316	2.27	N/A	12.8
150000	11.31	7.36	0.708	0.453	24.5	2.64	317	2.27	N/A	12.7
151000	11.31	7.35	0.707	0.452	24.2	2.61	317	2.26	N/A	12.8
152000	11.31	7.35	0.707	0.452	24.1	2.59	318	2.26	N/A	12.8

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
153000	11.27	7.37	0.670	0.429	25.2	2.72	315	2.22	N/A	12.8
154000	11.28	7.37	0.672	0.430	23.2	2.50	315	2.23	N/A	12.8
155000	11.28	7.37	0.670	0.429	21.2	2.29	315	2.22	N/A	12.8
160000	11.28	7.37	0.670	0.429	19.6	2.11	315	2.22	N/A	12.8
161000	11.25	7.38	0.669	0.428	18.0	1.94	315	2.21	N/A	12.8
162000	11.28	7.38	0.669	0.428	16.4	1.77	314	2.22	N/A	12.8
163000	11.28	7.39	0.672	0.430	15.1	1.62	314	2.22	N/A	12.8
164000	11.28	7.40	0.674	0.431	14.2	1.53	313	2.22	N/A	12.8
165000	11.30	7.40	0.675	0.432	13.5	1.46	313	2.22	N/A	12.8
170000	11.28	7.40	0.683	0.437	13.3	1.43	313	2.22	N/A	12.7
171000	11.30	7.40	0.676	0.432	13.2	1.43	314	2.22	N/A	12.8
172000	11.28	7.40	0.678	0.434	13.0	1.40	314	2.21	N/A	12.8
173000	11.28	7.40	0.688	0.440	12.8	1.38	314	2.21	N/A	12.8
174000	11.30	7.39	0.690	0.442	12.8	1.38	314	2.21	N/A	12.8
175000	11.30	7.39	0.690	0.442	12.8	1.38	315	2.21	N/A	12.8
180000	11.28	7.39	0.688	0.440	11.8	1.27	315	2.20	N/A	12.7
181000	11.27	7.39	0.692	0.443	12.7	1.37	316	2.20	N/A	12.8
182000	11.30	7.39	0.691	0.442	12.8	1.38	315	2.21	N/A	12.8
183000	11.30	7.39	0.695	0.445	15.8	1.70	316	2.21	N/A	12.8
184000	11.28	7.39	0.696	0.445	15.4	1.66	316	2.21	N/A	12.8
185000	11.30	7.38	0.704	0.451	14.2	1.53	316	2.21	N/A	12.8
190000	11.30	7.38	0.706	0.452	14.3	1.54	316	2.21	N/A	12.7
191000	11.30	7.38	0.709	0.454	14.5	1.56	316	2.21	N/A	12.8
192000	11.30	7.38	0.705	0.451	14.6	1.57	316	2.21	N/A	12.8
193000	11.30	7.38	0.703	0.450	16.3	1.75	316	2.21	N/A	12.8
194000	11.30	7.38	0.702	0.449	15.8	1.70	316	2.21	N/A	12.8
195000	11.30	7.38	0.703	0.450	15.4	1.66	316	2.21	N/A	15.3&
200000	10.99	8.59	0.291	0.186	15.9	1.72	286	0.96	N/A	15.2&
201000	12.13	8.27	0.008	0.005	56.2	5.96	263	0.39	N/A	15.2&
202000	11.72	7.39	0.621	0.398	63.3	6.76	310	2.21	N/A	15.2&
203000	11.43	7.42	0.635	0.407	30.1	3.24	310	2.21	N/A	15.2&
204000	11.51	7.41	0.641	0.410	27.8	2.98	310	2.21	N/A	15.2&
205000	11.48	7.40	0.637	0.408	28.1	3.02	311	2.21	N/A	15.2&
210000	11.46	7.41	0.637	0.408	27.1	2.91	312	2.21	N/A	15.2&
211000	11.45	7.41	0.643	0.411	25.1	2.70	311	2.21	N/A	15.2&
212000	11.45	7.40	0.646	0.413	25.3	2.72	312	2.21	N/A	15.2&
213000	11.43	7.40	0.653	0.418	26.1	2.80	312	2.21	N/A	15.2&
214000	11.41	7.40	0.665	0.425	27.4	2.95	313	2.21	N/A	15.2&
215000	11.41	7.40	0.677	0.433	26.7	2.87	313	2.21	N/A	15.2&
220000	11.40	7.40	0.672	0.430	26.1	2.81	313	2.21	N/A	15.1&
221000	11.40	7.41	0.670	0.429	26.1	2.81	313	2.21	N/A	15.2&
222000	11.40	7.40	0.672	0.430	25.5	2.74	314	2.21	N/A	15.2&
223000	11.40	7.40	0.689	0.441	25.5	2.74	314	2.21	N/A	15.1&
224000	11.38	7.40	0.693	0.444	25.2	2.71	315	2.21	N/A	15.1&
225000	11.38	7.39	0.699	0.447	25.1	2.70	315	2.21	N/A	15.1&
230000	11.38	7.39	0.701	0.449	24.9	2.68	316	2.21	N/A	15.1&
231000	11.36	7.39	0.706	0.452	24.9	2.68	316	2.20	N/A	15.1&
232000	11.35	7.39	0.714	0.457	25.1	2.70	317	2.20	N/A	15.1&

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
233000	11.36	7.39	0.713	0.456	25.2	2.71	317	2.21	N/A	15.1&
234000	11.36	7.38	0.714	0.457	24.8	2.67	317	2.21	N/A	15.1&
235000	11.36	7.38	0.713	0.456	24.3	2.62	317	2.21	N/A	15.1&
Date (MMDDYY): 101795										
000000	11.34	7.38	0.713	0.456	24.1	2.59	318	2.20	N/A	15.1&
001000	11.35	7.38	0.710	0.455	23.7	2.56	318	2.20	N/A	15.1&
002000	11.35	7.39	0.711	0.455	23.4	2.52	318	2.21	N/A	15.1&
003000	11.36	7.39	0.710	0.455	23.1	2.49	318	2.21	N/A	15.1&
004000	11.35	7.39	0.710	0.455	23.0	2.47	318	2.21	N/A	15.0&
005000	11.35	7.39	0.710	0.455	22.7	2.44	318	2.21	N/A	15.0&
010000	11.35	7.39	0.710	0.455	22.5	2.43	318	2.21	N/A	15.0&
011000	11.35	7.39	0.709	0.453	22.4	2.41	318	2.21	N/A	15.0&
012000	11.33	7.39	0.710	0.454	22.4	2.41	318	2.21	N/A	15.0&
013000	11.35	7.39	0.710	0.454	22.4	2.41	318	2.21	N/A	15.0&
014000	11.33	7.39	0.710	0.454	22.3	2.40	319	2.21	N/A	15.0&
015000	11.33	7.39	0.710	0.454	22.1	2.38	319	2.21	N/A	15.0&
020000	11.33	7.39	0.711	0.455	22.0	2.36	319	2.21	N/A	15.0&
021000	11.33	7.39	0.710	0.454	21.6	2.33	319	2.21	N/A	15.1&
022000	11.33	7.39	0.710	0.454	21.2	2.28	319	2.21	N/A	15.0&
023000	11.33	7.39	0.709	0.454	20.9	2.25	319	2.21	N/A	15.0&
024000	11.33	7.39	0.707	0.452	20.6	2.22	319	2.21	N/A	15.0&
025000	11.33	7.40	0.709	0.454	20.3	2.19	319	2.21	N/A	15.1&
030000	11.33	7.40	0.709	0.454	20.0	2.15	320	2.21	N/A	15.0&
031000	11.31	7.39	0.708	0.453	19.6	2.11	320	2.21	N/A	15.0&
032000	11.31	7.40	0.708	0.453	19.1	2.06	320	2.21	N/A	15.0&
033000	11.33	7.40	0.707	0.452	18.8	2.02	320	2.21	N/A	15.0&
034000	11.31	7.40	0.707	0.452	18.2	1.96	321	2.21	N/A	15.0&
035000	11.33	7.40	0.708	0.453	18.0	1.94	321	2.21	N/A	15.0&
040000	11.33	7.40	0.708	0.453	17.7	1.91	321	2.21	N/A	15.0&
041000	11.31	7.40	0.707	0.452	17.5	1.88	321	2.21	N/A	15.0&
042000	11.33	7.40	0.706	0.452	17.1	1.85	322	2.21	N/A	15.0&
043000	11.33	7.40	0.707	0.452	16.8	1.81	322	2.21	N/A	15.0&
044000	11.33	7.40	0.706	0.452	16.5	1.78	322	2.21	N/A	15.0&
045000	11.31	7.40	0.707	0.452	16.2	1.75	322	2.21	N/A	14.9&
050000	11.31	7.40	0.707	0.452	16.1	1.73	323	2.21	N/A	15.0&
051000	11.30	7.40	0.707	0.453	16.0	1.72	323	2.20	N/A	14.9&
052000	11.31	7.40	0.706	0.452	15.9	1.72	323	2.21	N/A	14.9&
053000	11.31	7.40	0.706	0.452	15.8	1.70	323	2.21	N/A	15.0&
054000	11.31	7.40	0.708	0.453	15.6	1.69	323	2.21	N/A	15.0&
055000	11.31	7.40	0.707	0.452	15.5	1.67	323	2.21	N/A	14.9&
060000	11.31	7.40	0.706	0.452	15.3	1.65	323	2.21	N/A	15.0&
061000	11.31	7.40	0.706	0.452	15.3	1.65	323	2.21	N/A	15.0&
062000	11.33	7.40	0.706	0.452	15.2	1.64	324	2.21	N/A	14.9&
063000	11.31	7.40	0.707	0.452	15.0	1.62	324	2.21	N/A	15.0&
064000	11.31	7.40	0.708	0.453	14.9	1.60	324	2.21	N/A	15.0&
065000	11.31	7.40	0.707	0.452	15.0	1.62	324	2.21	N/A	15.0&
070000	11.31	7.40	0.707	0.452	14.9	1.60	325	2.21	N/A	14.9&
071000	11.31	7.40	0.705	0.451	14.9	1.60	325	2.21	N/A	14.9&

TABLE B-12
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
072000	11.30	7.40	0.706	0.452	15.2	1.64	325	2.21	N/A	14.9&
073000	11.31	7.40	0.707	0.452	15.3	1.65	325	2.21	N/A	14.9&
074000	11.31	7.40	0.707	0.452	15.5	1.67	326	2.21	N/A	14.9&
075000	11.30	7.40	0.708	0.453	15.8	1.70	326	2.21	N/A	14.9&
080000	11.31	7.40	0.706	0.452	15.6	1.69	326	2.20	N/A	14.9&
081000	11.31	7.40	0.705	0.451	15.6	1.69	326	2.21	N/A	14.9&
082000	11.31	7.40	0.706	0.452	15.9	1.72	326	2.20	N/A	14.9&
083000	11.30	7.40	0.707	0.452	16.3	1.75	326	2.21	N/A	14.9&
084000	11.30	7.40	0.706	0.452	16.9	1.82	326	2.21	N/A	14.9&
085000	11.30	7.40	0.706	0.452	17.9	1.93	327	2.20	N/A	14.9&
090000	11.29	7.40	0.706	0.452	18.7	2.01	327	2.20	N/A	14.9&
091000	11.30	7.40	0.706	0.452	19.4	2.09	327	2.21	N/A	14.9&
092000	11.30	7.40	0.706	0.452	20.0	2.16	328	2.20	N/A	14.9&
093000	11.31	7.40	0.706	0.452	20.5	2.20	328	2.20	N/A	14.9&
094000	11.31	7.40	0.706	0.452	20.8	2.24	328	2.21	N/A	15.0&
095000	11.31	7.40	0.707	0.452	20.8	2.24	328	2.21	N/A	15.0&
100000	11.29	7.40	0.706	0.452	20.9	2.26	329	2.20	N/A	14.9&
101000	11.30	7.40	0.706	0.452	20.9	2.26	329	2.21	N/A	15.0&
102000	11.31	7.40	0.706	0.452	20.9	2.25	329	2.21	N/A	15.0&
103000	11.31	7.40	0.706	0.452	20.9	2.25	329	2.21	N/A	15.0&
104000	11.30	7.40	0.705	0.451	20.9	2.26	329	2.21	N/A	15.0&
105000	11.31	7.40	0.705	0.451	20.9	2.25	330	2.21	N/A	15.0&
110000	11.30	7.40	0.704	0.451	20.9	2.26	330	2.21	N/A	15.0&
111000	11.30	7.40	0.704	0.451	20.9	2.26	330	2.21	N/A	15.0&
112000	11.31	7.40	0.703	0.450	20.9	2.25	331	2.21	N/A	15.0&

Recovery finished at 101795 112134

TABLE B-13
WATER QUALITY IN WELL 31553
DURING 72-HOUR CONSTANT RATE INJECTION TEST
INCLUDING RECOVERY, 10/13/95 THROUGH 10/17/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: CONT53
Setup Date (MMDDYY): 101395
Setup Time (HHMMSS): 104455
Starting Date (MMDDYY): 101395
Starting Time (HHMMSS): 105000
Stopping Date (MMDDYY): 101795
Stopping Time (HHMMSS): 120000
Interval (HHMMSS): 001000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat: 753.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Meters, Depth-100m
Turbidity: Ratio, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101395										
105000	10.56	7.15	0.763	0.4	17.1	1.89	307	6.1	N/A	12.8
110000	10.56	7.15	0.764	0.4	17.0	1.87	307	6.1	N/A	12.8
111000	10.56	7.15	0.763	0.4	17.0	1.87	307	6.1	N/A	12.9
112000	10.56	7.15	0.774	0.4	16.8	1.84	306	6.1	N/A	12.9
113000	10.56	7.15	0.775	0.4	16.4	1.80	306	6.1	N/A	12.9
114000	10.56	7.15	0.774	0.4	16.6	1.82	305	6.1	N/A	12.9
115000	10.56	7.15	0.772	0.4	16.8	1.85	305	6.1	N/A	12.9
120000	10.56	7.15	0.768	0.4	16.8	1.85	305	6.1	N/A	12.8
121000	10.56	7.15	0.765	0.4	16.8	1.85	306	6.1	N/A	12.9
122000	10.56	7.15	0.764	0.4	16.4	1.80	306	6.1	N/A	12.9
123000	10.56	7.15	0.764	0.4	16.2	1.78	306	6.1	N/A	12.9
124000	10.56	7.15	0.762	0.4	16.4	1.80	306	6.1	N/A	13.0
125000	10.56	7.15	0.762	0.4	16.2	1.78	306	6.1	N/A	13.0
130000	10.56	7.15	0.762	0.4	16.0	1.76	307	6.1	N/A	12.9
131000	10.56	7.15	0.761	0.4	16.2	1.78	308	6.1	N/A	13.0
132000	10.56	7.15	0.759	0.4	17.1	1.89	308	6.1	N/A	13.0
133000	10.56	7.15	0.759	0.4	17.3	1.91	309	6.1	N/A	13.0
134000	10.56	7.15	0.755	0.4	16.8	1.85	309	6.1	N/A	12.9
135000	10.54	7.15	0.755	0.4	16.2	1.78	309	6.1	N/A	13.0
140000	10.56	7.15	0.754	0.4	16.4	1.80	310	6.1	N/A	12.9
141000	10.56	7.15	0.752	0.4	16.4	1.80	310	6.1	N/A	13.0
142000	10.56	7.15	0.751	0.4	16.4	1.80	310	6.1	N/A	13.0
143000	10.56	7.15	0.750	0.4	16.4	1.80	310	6.1	N/A	13.0
144000	10.56	7.15	0.748	0.4	16.4	1.80	310	6.1	N/A	13.0

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
145000	10.54	7.15	0.749	0.4	16.4	1.80	310	6.1	N/A	13.0
150000	10.56	7.15	0.749	0.4	16.4	1.80	311	6.1	N/A	12.9
151000	10.54	7.15	0.747	0.4	17.0	1.87	311	6.1	N/A	13.0
152000	10.54	7.15	0.748	0.4	17.0	1.87	311	6.1	N/A	13.0
153000	10.56	7.15	0.746	0.4	17.3	1.91	311	6.1	N/A	13.0
154000	10.54	7.15	0.746	0.4	17.7	1.95	311	6.1	N/A	13.0
155000	10.54	7.15	0.745	0.4	17.7	1.95	311	6.1	N/A	13.0
160000	10.56	7.15	0.745	0.4	17.9	1.97	312	6.1	N/A	12.9
161000	10.54	7.15	0.744	0.4	18.1	2.00	312	6.1	N/A	12.9
162000	10.54	7.15	0.743	0.4	18.7	2.06	312	6.1	N/A	13.0
163000	10.54	7.15	0.744	0.4	19.1	2.10	312	6.1	N/A	13.0
164000	10.54	7.15	0.743	0.4	19.3	2.12	312	6.1	N/A	13.0
165000	10.54	7.15	0.742	0.4	19.3	2.12	312	6.1	N/A	12.9
170000	10.54	7.15	0.742	0.4	19.5	2.14	312	6.1	N/A	12.9
171000	10.54	7.15	0.740	0.4	19.7	2.17	312	6.1	N/A	12.9
172000	10.54	7.15	0.741	0.4	19.7	2.17	313	6.1	N/A	12.9
173000	10.54	7.15	0.739	0.4	19.9	2.19	313	6.1	N/A	12.9
174000	10.54	7.15	0.739	0.4	19.9	2.19	313	6.1	N/A	12.9
175000	10.54	7.15	0.739	0.4	19.9	2.19	313	6.1	N/A	12.9
180000	10.56	7.16	0.738	0.4	19.8	2.18	313	6.1	N/A	12.9
181000	10.54	7.15	0.737	0.4	19.9	2.19	313	6.1	N/A	12.9
182000	10.54	7.16	0.735	0.4	20.2	2.23	313	6.1	N/A	12.9
183000	10.54	7.16	0.737	0.4	20.6	2.27	313	6.1	N/A	12.9
184000	10.54	7.16	0.735	0.4	21.0	2.31	313	6.1	N/A	12.9
185000	10.54	7.16	0.735	0.4	21.6	2.38	313	6.1	N/A	13.0
190000	10.54	7.16	0.734	0.4	22.0	2.42	313	6.1	N/A	12.8
191000	10.54	7.16	0.735	0.4	22.6	2.48	313	6.1	N/A	12.9
192000	10.54	7.16	0.734	0.4	22.6	2.48	313	6.1	N/A	13.0
193000	10.54	7.16	0.733	0.4	23.3	2.57	314	6.1	N/A	12.9
194000	10.54	7.16	0.733	0.4	23.5	2.59	314	6.1	N/A	12.9
195000	10.54	7.16	0.734	0.4	23.3	2.57	314	6.1	N/A	13.0
200000	10.54	7.16	0.734	0.4	23.7	2.61	314	6.1	N/A	12.8
201000	10.54	7.16	0.732	0.4	23.9	2.63	314	6.1	N/A	12.9
202000	10.54	7.16	0.732	0.4	24.1	2.65	314	6.1	N/A	12.9
203000	20.04	7.83	0.011	0.0	58.5	5.27	266	58.1	N/A	12.9
204000	19.64	7.53	0.012	0.0	59.3	5.38	285	53.7	N/A	12.9
205000	11.99	7.14	0.669	0.3	78.3	8.35	316	6.2	N/A	12.9
210000	11.97	7.17	0.666	0.3	67.7	7.21	306	6.2	N/A	12.8
211000	11.71	7.17	0.666	0.3	56.1	6.01	305	6.2	N/A	12.8
212000	11.41	7.16	0.668	0.3	54.5	5.88	305	6.1	N/A	12.9
213000	11.26	7.18	0.675	0.3	48.5	5.25	304	6.2	N/A	15.8&&
214000	11.08	7.17	0.679	0.3	44.5	4.84	303	6.2	N/A	15.8&&
215000	10.98	7.17	0.685	0.4	41.8	4.56	303	6.2	N/A	15.7&
220000	10.92	7.18	0.694	0.4	42.3	4.62	303	6.2	N/A	15.7&
221000	10.85	7.18	0.703	0.4	42.3	4.62	302	6.2	N/A	15.7&
222000	10.80	7.18	0.720	0.4	42.0	4.59	302	6.2	N/A	15.7&
223000	10.75	7.18	0.721	0.4	40.9	4.48	301	6.2	N/A	15.7&
224000	10.72	7.18	0.731	0.4	39.4	4.32	301	6.2	N/A	15.7&

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
225000	10.69	7.18	0.733	0.4	39.9	4.37	301	6.2	N/A	15.7&
230000	10.67	7.18	0.733	0.4	38.2	4.19	301	6.2	N/A	15.7&
231000	10.65	7.18	0.732	0.4	36.5	4.00	301	6.1	N/A	15.7&
232000	10.64	7.18	0.733	0.4	36.1	3.97	301	6.2	N/A	15.7&
233000	10.64	7.18	0.734	0.4	35.7	3.92	301	6.2	N/A	15.7&
234000	10.62	7.18	0.733	0.4	34.8	3.82	301	6.2	N/A	15.7&
235000	10.60	7.18	0.732	0.4	35.2	3.87	301	6.2	N/A	15.7&
Date (MMDDYY): 101495										
000000	10.60	7.18	0.731	0.4	35.4	3.89	301	6.2	N/A	15.6&
001000	10.60	7.18	0.730	0.4	35.8	3.93	301	6.2	N/A	15.7&
002000	10.60	7.18	0.729	0.4	35.2	3.87	301	6.1	N/A	15.7&
003000	10.59	7.18	0.731	0.4	34.8	3.83	301	6.1	N/A	15.7&
004000	10.59	7.18	0.731	0.4	35.2	3.87	302	6.1	N/A	15.6&
005000	10.59	7.18	0.735	0.4	35.2	3.87	302	6.1	N/A	15.6&
010000	10.59	7.18	0.734	0.4	35.0	3.85	303	6.1	N/A	15.6&
011000	10.59	7.18	0.734	0.4	34.8	3.83	303	6.1	N/A	15.7&
012000	10.59	7.18	0.735	0.4	34.3	3.77	304	6.1	N/A	15.6&
013000	10.59	7.18	0.736	0.4	33.7	3.70	305	6.1	N/A	15.6&
014000	10.57	7.18	0.736	0.4	33.7	3.71	305	6.1	N/A	15.7&
015000	10.57	7.18	0.737	0.4	33.5	3.69	306	6.1	N/A	15.6&
020000	10.57	7.18	0.738	0.4	33.3	3.67	306	6.1	N/A	15.6&
021000	10.57	7.18	0.738	0.4	33.1	3.64	306	6.1	N/A	15.6&
022000	10.57	7.18	0.737	0.4	32.7	3.60	307	6.1	N/A	15.6&
023000	10.57	7.18	0.737	0.4	32.7	3.60	307	6.1	N/A	15.6&
024000	10.57	7.18	0.738	0.4	32.7	3.60	307	6.1	N/A	15.6&
025000	10.57	7.18	0.737	0.4	32.7	3.60	307	6.1	N/A	15.6&
030000	10.57	7.18	0.739	0.4	32.7	3.60	308	6.1	N/A	15.5&
031000	10.57	7.18	0.740	0.4	32.5	3.58	308	6.1	N/A	15.6&
032000	10.57	7.18	0.740	0.4	32.3	3.56	308	6.1	N/A	15.6&
033000	10.57	7.18	0.740	0.4	32.2	3.54	309	6.1	N/A	15.6&
034000	10.57	7.18	0.741	0.4	32.0	3.52	309	6.1	N/A	15.6&
035000	10.57	7.18	0.741	0.4	32.0	3.52	309	6.1	N/A	15.5&
040000	10.57	7.18	0.741	0.4	31.6	3.47	309	6.1	N/A	15.5&
041000	10.56	7.18	0.741	0.4	31.4	3.46	309	6.1	N/A	15.6&
042000	10.56	7.18	0.743	0.4	31.4	3.46	309	6.1	N/A	15.5&
043000	10.56	7.18	0.741	0.4	31.0	3.41	310	6.1	N/A	15.5&
044000	10.56	7.18	0.742	0.4	31.0	3.41	310	6.1	N/A	12.9
045000	10.56	7.18	0.743	0.4	30.8	3.39	310	6.1	N/A	12.9
050000	10.57	7.18	0.745	0.4	30.6	3.37	310	6.1	N/A	12.8
051000	10.56	7.18	0.741	0.4	30.4	3.35	310	6.1	N/A	12.9
052000	10.56	7.18	0.744	0.4	30.4	3.35	310	6.1	N/A	12.9
053000	10.56	7.18	0.744	0.4	30.3	3.33	310	6.1	N/A	12.9
054000	10.56	7.18	0.746	0.4	29.9	3.29	310	6.1	N/A	12.9
055000	10.56	7.18	0.743	0.4	29.9	3.29	310	6.1	N/A	12.9
060000	10.56	7.19	0.740	0.4	29.9	3.29	310	6.1	N/A	12.7
061000	10.56	7.18	0.743	0.4	29.7	3.27	310	6.1	N/A	12.9
062000	10.56	7.19	0.742	0.4	29.5	3.25	310	6.1	N/A	12.9

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
063000	10.56	7.19	0.742	0.4	29.5	3.25	310	6.1	N/A	12.9
064000	10.56	7.19	0.743	0.4	29.3	3.22	310	6.1	N/A	12.8
065000	10.56	7.19	0.743	0.4	29.3	3.22	310	6.1	N/A	12.8
070000	10.56	7.19	0.745	0.4	29.1	3.20	310	6.1	N/A	12.6
071000	10.56	7.19	0.743	0.4	28.5	3.14	310	6.1	N/A	12.9
072000	10.56	7.19	0.746	0.4	28.9	3.18	310	6.1	N/A	12.8
073000	10.56	7.19	0.746	0.4	28.9	3.18	310	6.1	N/A	12.8
074000	10.56	7.19	0.744	0.4	28.7	3.16	311	6.1	N/A	12.8
075000	10.56	7.19	0.745	0.4	28.9	3.18	310	6.1	N/A	12.8
080000	10.56	7.19	0.744	0.4	28.9	3.18	310	6.1	N/A	12.6
081000	10.56	7.19	0.743	0.4	28.9	3.18	310	6.1	N/A	12.8
082000	10.56	7.19	0.745	0.4	29.1	3.20	310	6.1	N/A	12.8
083000	10.56	7.19	0.745	0.4	28.9	3.18	311	6.1	N/A	12.8
084000	10.56	7.19	0.744	0.4	28.9	3.18	311	6.1	N/A	12.8
085000	10.56	7.19	0.745	0.4	28.9	3.18	311	6.1	N/A	12.8
090000	10.56	7.19	0.744	0.4	29.1	3.20	311	6.1	N/A	12.6
091000	10.56	7.19	0.746	0.4	28.9	3.18	311	6.1	N/A	12.7
092000	10.56	7.19	0.746	0.4	28.7	3.16	311	6.1	N/A	12.7
093000	10.56	7.19	0.746	0.4	28.7	3.16	311	6.1	N/A	12.7
094000	10.56	7.19	0.748	0.4	28.7	3.16	311	6.1	N/A	12.7
095000	10.56	7.19	0.747	0.4	28.7	3.16	311	6.1	N/A	12.8
100000	10.56	7.19	0.744	0.4	28.9	3.18	312	6.1	N/A	12.6
101000	10.56	7.19	0.747	0.4	28.5	3.14	312	6.1	N/A	12.7
102000	10.56	7.19	0.748	0.4	28.5	3.14	312	6.1	N/A	12.7
103000	10.56	7.19	0.749	0.4	28.7	3.16	312	6.1	N/A	12.7
104000	15.27	7.93	0.014	0.0	49.4	4.91	186	1.7	N/A	12.7
105000	14.14	7.69	0.019	0.0	48.2	4.91	239	1.7	N/A	12.7
110000	10.82	7.17	0.715	0.4	41.2	4.50	289	6.2	N/A	12.6
111000	10.79	7.18	0.711	0.4	30.3	3.32	290	6.2	N/A	12.7
112000	10.70	7.18	0.710	0.4	27.4	3.00	291	6.2	N/A	12.7
113000	10.67	7.18	0.711	0.4	24.9	2.74	292	6.2	N/A	12.7
114000	10.62	7.18	0.712	0.4	24.2	2.66	294	6.1	N/A	12.7
115000	10.60	7.18	0.718	0.4	23.7	2.60	295	6.1	N/A	12.7
120000	10.59	7.18	0.728	0.4	23.5	2.58	296	6.1	N/A	12.6
121000	10.57	7.18	0.738	0.4	22.9	2.52	297	6.1	N/A	12.7
122000	10.57	7.18	0.732	0.4	22.1	2.44	298	6.1	N/A	12.7
123000	10.56	7.18	0.735	0.4	21.6	2.38	299	6.1	N/A	12.7
124000	10.56	7.18	0.737	0.4	20.8	2.29	300	6.1	N/A	12.7
125000	10.56	7.18	0.735	0.4	20.2	2.23	301	6.1	N/A	12.7
130000	10.56	7.18	0.734	0.4	20.2	2.23	302	6.1	N/A	12.6
131000	10.56	7.18	0.732	0.4	20.8	2.29	303	6.1	N/A	12.7
132000	10.56	7.18	0.733	0.4	21.8	2.40	303	6.1	N/A	12.7
133000	10.56	7.18	0.737	0.4	22.7	2.50	304	6.1	N/A	12.7
134000	10.56	7.18	0.732	0.4	23.9	2.63	304	6.1	N/A	12.7
135000	10.56	7.18	0.735	0.4	24.7	2.71	305	6.1	N/A	12.7
140000	10.56	7.19	0.733	0.4	25.4	2.80	305	6.1	N/A	12.6
141000	10.56	7.19	0.732	0.4	26.2	2.88	306	6.1	N/A	12.7
142000	10.56	7.19	0.737	0.4	27.0	2.97	306	6.1	N/A	12.7

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
143000	10.54	7.18	0.733	0.4	27.4	3.01	306	6.1	N/A	12.7
144000	10.56	7.19	0.733	0.4	27.6	3.03	307	6.1	N/A	12.7
145000	10.56	7.19	0.736	0.4	27.7	3.05	307	6.1	N/A	12.7
150000	10.56	7.19	0.734	0.4	27.9	3.08	308	6.1	N/A	12.6
151000	10.56	7.19	0.736	0.4	27.9	3.08	308	6.1	N/A	12.7
152000	10.56	7.19	0.736	0.4	28.1	3.10	308	6.1	N/A	12.7
153000	10.56	7.19	0.734	0.4	28.5	3.14	309	6.1	N/A	12.7
154000	10.56	7.19	0.737	0.4	28.7	3.16	309	6.1	N/A	12.7
155000	10.54	7.19	0.737	0.4	28.3	3.12	309	6.1	N/A	12.7
160000	10.56	7.19	0.736	0.4	28.3	3.12	310	6.1	N/A	12.6
161000	10.56	7.19	0.736	0.4	28.3	3.12	310	6.1	N/A	12.7
162000	10.56	7.19	0.734	0.4	28.5	3.14	310	6.1	N/A	12.7
163000	10.56	7.19	0.735	0.4	28.5	3.14	310	6.1	N/A	12.7
164000	10.56	7.19	0.735	0.4	28.7	3.16	310	6.1	N/A	12.6
165000	10.56	7.19	0.736	0.4	28.9	3.18	310	6.1	N/A	12.6
170000	10.56	7.19	0.735	0.4	28.9	3.18	311	6.1	N/A	12.6
171000	10.56	7.19	0.735	0.4	29.1	3.20	311	6.1	N/A	12.7
172000	10.56	7.19	0.736	0.4	29.3	3.22	311	6.1	N/A	12.7
173000	10.54	7.19	0.736	0.4	29.5	3.25	311	6.1	N/A	12.7
174000	10.54	7.19	0.736	0.4	29.5	3.25	311	6.1	N/A	12.7
175000	10.56	7.19	0.736	0.4	29.7	3.27	312	6.1	N/A	12.7
180000	10.56	7.20	0.738	0.4	29.9	3.29	312	6.1	N/A	12.6
181000	10.54	7.19	0.736	0.4	29.7	3.27	312	6.1	N/A	12.7
182000	10.56	7.20	0.738	0.4	29.7	3.27	312	6.1	N/A	12.7
183000	10.54	7.20	0.736	0.4	29.9	3.29	312	6.1	N/A	12.7
184000	10.54	7.20	0.736	0.4	29.7	3.27	312	6.1	N/A	12.7
185000	10.56	7.20	0.737	0.4	29.9	3.29	313	6.1	N/A	12.7
190000	10.56	7.20	0.737	0.4	29.9	3.29	313	6.1	N/A	12.6
191000	10.54	7.20	0.735	0.4	30.1	3.31	313	6.1	N/A	12.7
192000	10.56	7.20	0.736	0.4	30.1	3.31	313	6.1	N/A	12.7
193000	10.56	7.20	0.738	0.4	30.1	3.31	313	6.1	N/A	12.7
194000	10.54	7.20	0.738	0.4	30.1	3.31	313	6.1	N/A	12.7
195000	10.56	7.20	0.738	0.4	30.1	3.31	313	6.1	N/A	12.7
200000	10.56	7.20	0.737	0.4	30.3	3.33	313	6.2	N/A	12.6
201000	10.56	7.20	0.737	0.4	30.1	3.31	313	6.1	N/A	12.7
202000	10.54	7.20	0.739	0.4	30.1	3.31	313	6.1	N/A	12.7
203000	10.56	7.20	0.737	0.4	30.1	3.31	313	6.1	N/A	12.7
204000	15.79	8.37	0.010	0.0	56.7	5.57	246	82.7	N/A	12.7
205000	14.50	7.98	0.012	0.0	47.9	4.84	261	78.7	N/A	12.7
210000	10.75	7.19	0.719	0.4	60.0	6.58	316	6.2	N/A	12.6
211000	10.70	7.20	0.717	0.4	64.9	7.12	314	6.2	N/A	12.7
212000	10.65	7.20	0.717	0.4	62.2	6.83	313	6.2	N/A	12.7
213000	10.60	7.20	0.718	0.4	62.3	6.85	313	6.2	N/A	12.6
214000	10.57	7.20	0.729	0.4	61.0	6.72	313	6.2	N/A	12.7
215000	10.57	7.19	0.736	0.4	59.3	6.53	313	6.2	N/A	15.5&
220000	10.57	7.20	0.735	0.4	60.1	6.61	313	6.2	N/A	15.5&
221000	10.56	7.20	0.737	0.4	59.2	6.51	312	6.2	N/A	15.5&
222000	10.56	7.20	0.742	0.4	58.8	6.47	312	6.2	N/A	15.5&

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
223000	10.56	7.20	0.739	0.4	61.5	6.77	313	6.2	N/A	15.4&
224000	10.56	7.20	0.747	0.4	62.2	6.85	314	6.2	N/A	15.5&
225000	10.56	7.20	0.745	0.4	61.3	6.74	315	6.2	N/A	15.4&
230000	10.56	7.20	0.750	0.4	60.9	6.70	316	6.2	N/A	15.4&
231000	10.56	7.20	0.750	0.4	59.5	6.55	316	6.2	N/A	15.5&
232000	10.56	7.20	0.750	0.4	58.2	6.40	316	6.2	N/A	15.4&
233000	10.56	7.20	0.742	0.4	56.8	6.26	316	6.2	N/A	15.4&
234000	10.56	7.20	0.748	0.4	56.1	6.17	317	6.2	N/A	15.4&
235000	10.56	7.20	0.753	0.4	56.3	6.19	317	6.1	N/A	15.4&
Date (MMDDYY): 101595										
000000	10.56	7.20	0.754	0.4	55.9	6.15	317	6.2	N/A	15.4&
001000	10.56	7.20	0.756	0.4	54.9	6.04	317	6.1	N/A	15.4&
002000	10.56	7.20	0.755	0.4	53.6	5.90	317	6.2	N/A	15.4&
003000	10.56	7.20	0.756	0.4	51.8	5.70	317	6.2	N/A	15.4&
004000	10.56	7.20	0.755	0.4	49.9	5.49	318	6.1	N/A	15.4&
005000	10.56	7.20	0.756	0.4	48.7	5.37	318	6.1	N/A	15.3&
010000	10.56	7.20	0.758	0.4	47.8	5.26	318	6.2	N/A	15.3&
011000	10.56	7.20	0.757	0.4	47.0	5.17	318	6.2	N/A	15.3&
012000	10.54	7.20	0.758	0.4	46.3	5.10	318	6.1	N/A	15.3&
013000	10.56	7.20	0.758	0.4	45.7	5.03	319	6.1	N/A	15.3&
014000	10.56	7.20	0.758	0.4	45.1	4.96	319	6.1	N/A	15.3&
015000	10.56	7.20	0.758	0.4	44.5	4.90	319	6.1	N/A	15.3&
020000	10.56	7.20	0.760	0.4	43.9	4.84	319	6.2	N/A	15.3&
021000	10.56	7.20	0.759	0.4	43.2	4.75	319	6.1	N/A	15.3&
022000	10.56	7.20	0.759	0.4	42.6	4.69	319	6.1	N/A	15.2&
023000	10.54	7.20	0.760	0.4	42.0	4.63	319	6.1	N/A	15.3&
024000	10.56	7.20	0.760	0.4	41.4	4.56	320	6.1	N/A	15.3&
025000	10.56	7.20	0.760	0.4	41.0	4.52	320	6.1	N/A	15.3&
030000	10.56	7.20	0.761	0.4	40.5	4.45	320	6.1	N/A	15.3&
031000	10.56	7.20	0.761	0.4	40.1	4.41	320	6.1	N/A	15.3&
032000	10.56	7.20	0.761	0.4	39.5	4.35	320	6.1	N/A	15.2&
033000	10.56	7.20	0.758	0.4	39.1	4.31	320	6.1	N/A	15.3&
034000	10.56	7.20	0.760	0.4	38.3	4.22	320	6.1	N/A	15.2&
035000	10.56	7.20	0.761	0.4	38.0	4.18	321	6.1	N/A	15.2&
040000	10.56	7.20	0.762	0.4	38.0	4.18	321	6.1	N/A	15.2&
041000	10.56	7.20	0.761	0.4	37.4	4.11	321	6.1	N/A	15.2&
042000	10.56	7.20	0.763	0.4	37.0	4.07	321	6.1	N/A	15.2&
043000	10.54	7.20	0.763	0.4	36.6	4.03	321	6.1	N/A	15.2&
044000	10.56	7.20	0.763	0.4	36.2	3.99	321	6.1	N/A	15.2&
045000	10.56	7.21	0.763	0.4	35.8	3.94	320	6.1	N/A	15.2&
050000	10.56	7.21	0.764	0.4	35.3	3.88	320	6.1	N/A	15.2&
051000	10.56	7.21	0.763	0.4	34.9	3.84	320	6.1	N/A	15.2&
052000	10.54	7.21	0.763	0.4	34.5	3.80	319	6.1	N/A	15.2&
053000	10.56	7.21	0.763	0.4	34.1	3.75	319	6.1	N/A	15.2&
054000	10.56	7.21	0.763	0.4	33.7	3.71	318	6.1	N/A	15.2&
055000	10.56	7.21	0.763	0.4	33.5	3.69	317	6.1	N/A	15.2&
060000	10.56	7.21	0.763	0.4	33.1	3.65	316	6.1	N/A	15.2&

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
061000	10.56	7.21	0.763	0.4	32.8	3.61	316	6.1	N/A	15.2&
062000	10.56	7.21	0.763	0.4	32.6	3.58	317	6.1	N/A	15.2&
063000	10.56	7.21	0.763	0.4	32.2	3.54	317	6.1	N/A	15.2&
064000	10.56	7.21	0.764	0.4	32.0	3.52	317	6.1	N/A	15.2&
065000	10.56	7.21	0.763	0.4	31.8	3.50	318	6.1	N/A	15.2&
070000	10.56	7.21	0.765	0.4	31.4	3.46	318	6.1	N/A	15.2&
071000	10.56	7.21	0.748	0.4	31.0	3.41	318	6.1	N/A	15.2&
072000	6.68	7.92	0.027	0.0	65.6	7.96	279	87.3	N/A	15.2&
073000	6.22	7.61	0.027	0.0	59.1	7.25	304	83.9	N/A	15.2&
074000	5.69	7.42	0.027	0.0	56.7	7.05	314	83.7	N/A	15.2&
075000	5.24	7.31	0.026	0.0	56.4	7.09	319	84.5	N/A	15.2&
080000	9.87	7.52	0.546	0.3	97.0	10.85	309	6.2	N/A	15.1&
081000	9.85	7.50	0.554	0.3	93.3	10.44	308	6.2	N/A	12.6
082000	10.00	7.49	0.551	0.3	90.3	10.08	308	6.2	N/A	12.5
083000	10.13	7.53	0.557	0.3	87.3	9.71	306	6.2	N/A	12.7
084000	10.23	7.59	0.546	0.3	86.3	9.58	303	6.2	N/A	12.7
085000	10.28	7.58	0.559	0.3	85.0	9.42	303	6.2	N/A	12.7
090000	10.33	7.57	0.571	0.3	83.4	9.24	304	6.2	N/A	12.6
091000	10.36	7.57	0.599	0.3	81.4	9.01	303	6.2	N/A	12.7
092000	10.37	7.53	0.603	0.3	80.0	8.85	306	6.2	N/A	12.7
093000	10.41	7.52	0.627	0.3	78.1	8.63	307	6.2	N/A	12.7
094000	10.41	7.50	0.661	0.3	74.8	8.27	307	6.2	N/A	12.7
095000	10.42	7.49	0.626	0.3	71.5	7.90	308	6.2	N/A	12.7
100000	10.44	7.49	0.657	0.3	68.5	7.57	308	6.2	N/A	12.5
101000	10.44	7.48	0.628	0.3	66.4	7.33	309	6.2	N/A	12.7
102000	10.46	7.48	0.619	0.3	64.6	7.13	309	6.2	N/A	12.7
103000	10.46	7.45	0.631	0.3	60.9	6.73	310	6.2	N/A	12.6
104000	10.46	7.43	0.635	0.3	56.3	6.21	311	6.2	N/A	12.7
105000	10.47	7.41	0.656	0.3	52.4	5.78	311	6.2	N/A	12.7
110000	10.47	7.40	0.667	0.3	50.5	5.57	312	6.2	N/A	12.5
111000	10.47	7.38	0.679	0.3	48.9	5.40	313	6.2	N/A	12.7
112000	10.47	7.37	0.686	0.4	48.3	5.33	313	6.2	N/A	12.7
113000	10.49	7.36	0.692	0.4	47.3	5.22	314	6.2	N/A	12.7
114000	10.49	7.34	0.704	0.4	44.1	4.86	315	6.2	N/A	12.7
115000	10.49	7.33	0.711	0.4	41.7	4.60	315	6.2	N/A	12.7
120000	10.51	7.32	0.720	0.4	42.1	4.64	316	6.2	N/A	12.6
121000	10.51	7.31	0.724	0.4	42.7	4.70	316	6.2	N/A	12.7
122000	10.51	7.31	0.725	0.4	41.5	4.57	316	6.2	N/A	12.7
123000	10.51	7.30	0.729	0.4	38.6	4.26	316	6.2	N/A	12.7
124000	10.51	7.29	0.731	0.4	38.6	4.26	317	6.2	N/A	12.7
125000	10.51	7.28	0.735	0.4	38.8	4.28	317	6.2	N/A	12.7
130000	10.52	7.28	0.735	0.4	39.0	4.29	317	6.2	N/A	12.5
131000	10.51	7.28	0.739	0.4	39.4	4.34	317	6.2	N/A	12.7
132000	10.51	7.28	0.742	0.4	39.0	4.30	317	6.2	N/A	12.7
133000	10.52	7.27	0.746	0.4	38.4	4.23	317	6.2	N/A	12.7
134000	10.52	7.27	0.743	0.4	37.6	4.14	318	6.2	N/A	12.7
135000	10.52	7.27	0.748	0.4	36.9	4.06	318	6.2	N/A	12.7
140000	10.52	7.27	0.754	0.4	36.5	4.02	318	6.2	N/A	12.7

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
141000	10.52	7.27	0.755	0.4	35.7	3.93	318	6.2	N/A	12.7
142000	10.52	7.26	0.758	0.4	35.3	3.89	318	6.2	N/A	12.6
143000	10.52	7.26	0.760	0.4	35.1	3.87	318	6.2	N/A	12.6
144000	10.52	7.26	0.764	0.4	34.7	3.83	318	6.2	N/A	12.7
145000	10.52	7.26	0.765	0.4	34.3	3.78	318	6.2	N/A	12.6
150000	10.52	7.26	0.763	0.4	34.0	3.74	318	6.2	N/A	12.6
151000	10.52	7.26	0.766	0.4	33.6	3.70	318	6.2	N/A	12.6
152000	10.52	7.25	0.768	0.4	33.2	3.66	317	6.2	N/A	12.6
153000	10.54	7.25	0.768	0.4	32.6	3.59	317	6.2	N/A	12.6
154000	10.54	7.25	0.769	0.4	32.0	3.52	317	6.2	N/A	12.6
155000	10.54	7.25	0.770	0.4	31.8	3.50	317	6.2	N/A	12.6
160000	10.54	7.25	0.771	0.4	32.6	3.59	316	6.2	N/A	12.5
161000	10.54	7.25	0.769	0.4	33.0	3.63	316	6.2	N/A	12.5
162000	10.54	7.25	0.767	0.4	33.2	3.65	316	6.2	N/A	12.6
163000	10.54	7.24	0.765	0.4	32.8	3.61	316	6.2	N/A	12.6
164000	10.54	7.24	0.767	0.4	32.4	3.57	316	6.2	N/A	12.6
165000	10.54	7.24	0.767	0.4	32.2	3.55	316	6.2	N/A	12.6
170000	10.54	7.24	0.767	0.4	32.0	3.52	316	6.2	N/A	12.5
171000	10.54	7.24	0.767	0.4	31.8	3.50	316	6.2	N/A	12.6
172000	10.54	7.24	0.769	0.4	31.4	3.46	316	6.2	N/A	12.6
173000	10.54	7.24	0.768	0.4	31.2	3.44	316	6.2	N/A	12.6
174000	10.54	7.24	0.770	0.4	30.8	3.40	317	6.2	N/A	12.7
175000	10.54	7.24	0.768	0.4	30.5	3.35	317	6.2	N/A	12.6
180000	10.54	7.24	0.771	0.4	30.1	3.31	317	6.2	N/A	12.5
181000	10.54	7.24	0.769	0.4	29.9	3.29	318	6.2	N/A	12.6
182000	10.54	7.24	0.770	0.4	29.7	3.27	318	6.2	N/A	12.6
183000	10.54	7.24	0.771	0.4	29.7	3.27	318	6.2	N/A	12.5
184000	10.54	7.24	0.769	0.4	29.5	3.25	318	6.2	N/A	12.6
185000	10.54	7.23	0.767	0.4	29.1	3.21	319	6.2	N/A	12.5
190000	10.54	7.23	0.769	0.4	28.7	3.16	319	6.2	N/A	12.5
191000	10.54	7.23	0.769	0.4	27.6	3.04	319	6.2	N/A	12.5
192000	10.54	7.23	0.769	0.4	25.6	2.82	320	6.2	N/A	12.6
193000	10.54	7.23	0.769	0.4	25.1	2.76	320	6.2	N/A	12.6
194000	10.54	7.23	0.770	0.4	24.7	2.72	320	6.2	N/A	12.6
195000	10.54	7.23	0.768	0.4	23.7	2.61	320	6.2	N/A	12.5
200000	10.56	7.23	0.770	0.4	21.8	2.40	320	6.2	N/A	12.5
201000	10.54	7.23	0.770	0.4	23.1	2.55	320	6.2	N/A	12.5
202000	10.69	7.36	0.383	0.2	23.0	2.53	313	0.6	N/A	12.5
203000	13.36	7.96	0.010	0.0	56.3	5.83	288	31.1	N/A	12.5
204000	11.64	7.70	0.011	0.0	56.4	6.07	309	31.4	N/A	12.5
205000	10.88	7.26	0.659	0.3	67.3	7.35	335	6.2	N/A	12.5
210000	10.74	7.26	0.675	0.3	63.9	7.00	335	6.2	N/A	12.4
211000	10.69	7.26	0.671	0.3	61.3	6.73	334	6.2	N/A	12.4
212000	10.67	7.26	0.681	0.4	59.8	6.57	335	6.2	N/A	12.5
213000	10.64	7.26	0.698	0.4	55.7	6.12	334	6.2	N/A	12.5
214000	10.62	7.26	0.715	0.4	53.2	5.85	334	6.2	N/A	15.3&
215000	10.62	7.26	0.720	0.4	51.7	5.68	334	6.2	N/A	15.3&
220000	10.62	7.26	0.722	0.4	50.7	5.58	333	6.2	N/A	15.3&
221000	10.60	7.26	0.727	0.4	48.8	5.37	333	6.2	N/A	15.3&
222000	10.60	7.26	0.742	0.4	47.5	5.22	333	6.2	N/A	15.3&

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
223000	10.59	7.26	0.751	0.4	45.8	5.04	333	6.2	N/A	15.3&
224000	10.59	7.25	0.756	0.4	45.0	4.95	333	6.2	N/A	15.3&
225000	10.59	7.25	0.757	0.4	43.1	4.74	332	6.2	N/A	15.3&
230000	10.59	7.25	0.757	0.4	42.5	4.68	332	6.2	N/A	15.2&
231000	10.59	7.25	0.757	0.4	42.3	4.66	332	6.2	N/A	15.2&
232000	10.59	7.24	0.759	0.4	42.7	4.70	331	6.2	N/A	15.2&
233000	10.57	7.24	0.760	0.4	42.6	4.68	331	6.2	N/A	15.2&
234000	10.57	7.24	0.761	0.4	40.8	4.49	331	6.2	N/A	15.1&
235000	10.57	7.24	0.760	0.4	41.2	4.53	331	6.2	N/A	15.2&
Date (MMDDYY):	101695									
000000	10.57	7.24	0.762	0.4	41.4	4.55	330	6.2	N/A	15.2&
001000	10.57	7.24	0.764	0.4	42.0	4.62	330	6.2	N/A	15.2&
002000	10.57	7.24	0.762	0.4	41.2	4.53	330	6.2	N/A	15.2&
003000	10.57	7.24	0.762	0.4	41.6	4.58	330	6.2	N/A	15.2&
004000	10.57	7.23	0.763	0.4	41.6	4.58	330	6.2	N/A	15.2&
005000	10.57	7.24	0.767	0.4	41.6	4.58	330	6.2	N/A	15.2&
010000	10.57	7.24	0.766	0.4	39.9	4.39	330	6.2	N/A	15.1&
011000	10.57	7.23	0.758	0.4	38.3	4.22	330	6.2	N/A	15.1&
012000	10.57	7.23	0.749	0.4	37.0	4.07	330	6.2	N/A	15.1&
013000	10.57	7.23	0.748	0.4	36.2	3.98	331	6.2	N/A	15.1&
014000	10.57	7.23	0.749	0.4	36.2	3.98	331	6.2	N/A	15.1&
015000	10.57	7.23	0.751	0.4	35.6	3.92	331	6.2	N/A	15.1&
020000	10.57	7.23	0.750	0.4	34.9	3.83	331	6.2	N/A	15.1&
021000	10.57	7.23	0.751	0.4	33.9	3.73	331	6.2	N/A	15.1&
022000	10.57	7.23	0.752	0.4	33.5	3.69	331	6.2	N/A	15.1&
023000	10.57	7.23	0.751	0.4	32.5	3.58	332	6.2	N/A	15.2&
024000	10.57	7.23	0.751	0.4	32.2	3.54	332	6.2	N/A	15.1&
025000	10.57	7.23	0.752	0.4	32.2	3.54	332	6.2	N/A	15.1&
030000	10.57	7.23	0.753	0.4	32.2	3.54	332	6.2	N/A	15.0&
031000	10.57	7.23	0.754	0.4	32.9	3.62	332	6.2	N/A	15.1&
032000	10.57	7.23	0.757	0.4	33.5	3.69	332	6.2	N/A	15.1&
033000	10.57	7.23	0.754	0.4	33.7	3.71	332	6.2	N/A	15.1&
034000	10.57	7.23	0.757	0.4	34.3	3.77	332	6.2	N/A	15.1&
035000	10.57	7.23	0.754	0.4	34.3	3.77	332	6.2	N/A	15.1&
040000	10.57	7.23	0.753	0.4	34.7	3.81	332	6.2	N/A	15.0&
041000	10.57	7.23	0.754	0.4	34.7	3.81	333	6.2	N/A	15.0&
042000	10.57	7.23	0.754	0.4	35.0	3.86	333	6.2	N/A	15.0&
043000	10.57	7.23	0.756	0.4	35.0	3.86	333	6.2	N/A	15.1&
044000	10.57	7.23	0.757	0.4	35.2	3.88	333	6.2	N/A	15.1&
045000	10.57	7.23	0.755	0.4	35.2	3.88	333	6.2	N/A	15.1&
050000	10.57	7.23	0.755	0.4	35.2	3.88	333	6.2	N/A	15.0&
051000	10.57	7.23	0.754	0.4	35.2	3.88	333	6.2	N/A	13.4
052000	10.57	7.23	0.755	0.4	35.2	3.88	333	6.2	N/A	13.2
053000	10.57	7.23	0.754	0.4	35.0	3.86	333	6.2	N/A	13.1
054000	10.57	7.23	0.753	0.4	35.0	3.86	333	6.2	N/A	13.1
055000	10.57	7.23	0.754	0.4	35.0	3.86	333	6.2	N/A	13.0
060000	10.57	7.23	0.755	0.4	35.0	3.86	333	6.2	N/A	12.8
061000	10.57	7.23	0.753	0.4	35.2	3.88	333	6.2	N/A	12.9
062000	10.57	7.23	0.753	0.4	35.0	3.86	333	6.2	N/A	12.9

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
063000	10.57	7.23	0.753	0.4	35.0	3.86	333	6.2	N/A	12.9
064000	10.57	7.23	0.754	0.4	35.0	3.86	333	6.2	N/A	12.9
065000	10.57	7.23	0.754	0.4	34.9	3.83	333	6.2	N/A	12.7
070000	10.57	7.23	0.756	0.4	33.9	3.73	333	6.2	N/A	12.7
071000	10.57	7.23	0.754	0.4	33.7	3.71	333	6.2	N/A	12.8
072000	10.57	7.23	0.753	0.4	32.9	3.62	333	6.2	N/A	12.8
073000	10.57	7.23	0.754	0.4	32.7	3.60	333	6.2	N/A	12.8
074000	11.08	7.51	0.012	0.0	45.3	4.93	317	0.1	N/A	12.8
075000	3.90	8.12	0.014	0.0	58.0	7.55	263	1.4	N/A	12.8
080000	3.18	7.91	0.016	0.0	53.3	7.07	287	1.4	N/A	12.7
081000	2.63	7.75	0.016	0.0	51.9	6.99	303	1.4	N/A	12.8
082000	2.20	7.59	0.016	0.0	51.0	6.95	315	1.4	N/A	12.8
083000	1.92	7.43	0.015	0.0	50.5	6.94	325	1.4	N/A	12.8
084000	8.49	8.03	0.478	0.2	58.4	6.76	286	6.2	N/A	12.8
085000	8.44	8.04	0.480	0.2	56.9	6.59	286	6.3	N/A	12.8
090000	8.70	8.06	0.478	0.2	55.8	6.43	285	6.3	N/A	12.6
091000	9.01	8.03	0.474	0.2	53.8	6.15	287	6.2	N/A	12.7
092000	9.23	8.00	0.475	0.2	54.8	6.23	289	6.2	N/A	12.7
093000	9.39	7.99	0.474	0.2	54.8	6.21	289	6.2	N/A	12.8
094000	9.54	8.00	0.488	0.2	54.7	6.17	289	6.2	N/A	12.8
095000	9.65	7.98	0.488	0.2	55.2	6.21	290	6.2	N/A	12.8
100000	9.73	7.95	0.499	0.3	55.0	6.18	293	6.3	N/A	12.7
101000	9.80	7.92	0.502	0.3	55.3	6.20	294	6.2	N/A	12.8
102000	9.87	7.89	0.506	0.3	55.1	6.17	296	6.2	N/A	12.7
103000	9.92	7.88	0.530	0.3	55.2	6.17	297	6.2	N/A	12.7
104000	9.95	7.86	0.548	0.3	55.5	6.20	298	6.2	N/A	12.8
105000	9.98	7.84	0.562	0.3	55.6	6.21	300	6.2	N/A	12.8
110000	10.01	7.83	0.560	0.3	55.0	6.13	301	6.2	N/A	12.7
111000	10.05	7.80	0.555	0.3	53.9	6.01	302	6.2	N/A	12.8
112000	10.08	7.79	0.560	0.3	52.7	5.87	303	6.2	N/A	12.8
113000	10.10	7.76	0.569	0.3	51.6	5.75	303	6.2	N/A	12.8
114000	10.13	7.73	0.583	0.3	50.6	5.63	305	6.2	N/A	12.8
115000	10.14	7.70	0.597	0.3	49.6	5.51	306	6.2	N/A	12.8
120000	10.18	7.68	0.615	0.3	48.5	5.39	308	6.2	N/A	12.7
121000	10.19	7.64	0.618	0.3	47.1	5.23	309	6.2	N/A	12.8
122000	10.21	7.61	0.627	0.3	45.7	5.08	311	6.2	N/A	12.8
123000	10.23	7.59	0.634	0.3	44.7	4.96	312	6.2	N/A	12.8
124000	10.24	7.57	0.645	0.3	43.9	4.87	313	6.2	N/A	12.9
125000	10.24	7.56	0.654	0.3	43.3	4.81	314	6.2	N/A	12.8
130000	10.26	7.54	0.661	0.3	42.3	4.69	315	6.2	N/A	12.7
131000	10.28	7.52	0.669	0.3	41.1	4.56	316	6.2	N/A	12.8
132000	10.29	7.50	0.679	0.3	39.9	4.42	316	6.2	N/A	12.8
133000	10.29	7.49	0.686	0.4	39.2	4.34	316	6.2	N/A	12.8
134000	10.31	7.48	0.693	0.4	38.7	4.29	317	6.2	N/A	12.8
135000	10.31	7.47	0.704	0.4	37.4	4.14	318	6.2	N/A	12.8
140000	10.33	7.46	0.711	0.4	36.6	4.05	319	6.2	N/A	12.7
141000	10.34	7.45	0.722	0.4	36.0	3.98	319	6.2	N/A	12.8
142000	10.34	7.44	0.731	0.4	35.6	3.94	320	6.2	N/A	12.8
143000	10.34	7.43	0.733	0.4	35.4	3.91	320	6.2	N/A	12.8

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
144000	10.36	7.42	0.737	0.4	34.8	3.85	321	6.2	N/A	12.8
145000	10.36	7.41	0.740	0.4	34.6	3.82	321	6.2	N/A	12.8
150000	10.37	7.39	0.745	0.4	34.2	3.78	322	6.2	N/A	12.7
151000	10.37	7.38	0.741	0.4	33.6	3.71	322	6.2	N/A	12.7
152000	10.39	7.38	0.742	0.4	33.6	3.71	323	6.2	N/A	12.8
153000	10.39	7.38	0.745	0.4	33.4	3.69	323	6.2	N/A	12.8
154000	10.39	7.38	0.745	0.4	33.0	3.64	323	6.2	N/A	12.8
155000	10.39	7.38	0.740	0.4	32.6	3.60	323	6.2	N/A	12.8
160000	10.41	7.38	0.735	0.4	33.0	3.64	323	6.2	N/A	12.7
161000	10.41	7.38	0.736	0.4	33.5	3.70	323	6.2	N/A	12.8
162000	10.41	7.38	0.740	0.4	34.1	3.77	323	6.2	N/A	12.8
163000	10.41	7.38	0.740	0.4	34.5	3.81	323	6.2	N/A	12.7
164000	10.41	7.37	0.742	0.4	34.7	3.83	323	6.2	N/A	12.7
165000	10.41	7.37	0.742	0.4	34.3	3.79	323	6.2	N/A	12.8
170000	10.42	7.37	0.744	0.4	34.1	3.76	324	6.2	N/A	12.6
171000	10.42	7.36	0.746	0.4	33.9	3.74	323	6.2	N/A	12.7
172000	10.42	7.36	0.747	0.4	33.9	3.74	323	6.2	N/A	12.7
173000	10.42	7.36	0.749	0.4	33.9	3.74	324	6.2	N/A	12.7
174000	10.42	7.35	0.751	0.4	34.1	3.76	324	6.2	N/A	12.8
175000	10.42	7.35	0.753	0.4	34.3	3.79	324	6.2	N/A	12.7
180000	10.44	7.35	0.756	0.4	34.3	3.78	323	6.2	N/A	12.6
181000	10.44	7.35	0.758	0.4	34.5	3.80	323	6.2	N/A	12.7
182000	10.44	7.34	0.760	0.4	34.5	3.80	323	6.2	N/A	12.7
183000	10.44	7.34	0.762	0.4	34.3	3.78	323	6.2	N/A	12.7
184000	10.44	7.33	0.763	0.4	34.1	3.76	323	6.2	N/A	12.7
185000	10.44	7.33	0.764	0.4	34.1	3.76	323	6.2	N/A	12.7
190000	10.46	7.33	0.766	0.4	33.7	3.71	324	6.2	N/A	12.6
191000	10.44	7.33	0.721	0.4	34.3	3.78	324	6.2	N/A	12.7
192000	14.97	8.11	0.010	0.0	50.9	5.09	230	32.8	N/A	12.7
193000	12.96	8.10	0.011	0.0	49.5	5.17	256	33.2	N/A	12.7
194000	11.40	8.20	0.012	0.0	48.4	5.24	267	34.2	N/A	12.7
195000	10.87	7.28	0.694	0.4	52.5	5.74	279	6.2	N/A	12.7
200000	10.70	7.29	0.694	0.4	32.6	3.57	286	6.2	N/A	15.3&
201000	10.64	7.30	0.693	0.4	26.1	2.87	291	6.2	N/A	15.3&
202000	10.59	7.30	0.694	0.4	27.5	3.03	294	6.2	N/A	15.2&
203000	10.57	7.30	0.702	0.4	26.8	2.95	296	6.2	N/A	15.2&
204000	10.56	7.30	0.716	0.4	26.4	2.91	298	6.2	N/A	15.2&
205000	10.54	7.30	0.717	0.4	26.0	2.87	300	6.2	N/A	15.2&
210000	10.54	7.30	0.724	0.4	25.8	2.85	301	6.2	N/A	15.2&
211000	10.52	7.30	0.727	0.4	25.5	2.81	302	6.2	N/A	15.2&
212000	10.52	7.31	0.727	0.4	25.1	2.76	303	6.2	N/A	15.2&
213000	10.52	7.31	0.727	0.4	24.7	2.72	304	6.2	N/A	15.1&
214000	10.52	7.31	0.729	0.4	24.3	2.68	305	6.2	N/A	15.2&
215000	10.51	7.31	0.731	0.4	24.1	2.66	305	6.2	N/A	15.1&
220000	10.52	7.31	0.737	0.4	23.9	2.64	306	6.2	N/A	15.1&
221000	10.51	7.31	0.742	0.4	23.4	2.57	306	6.2	N/A	15.1&
222000	10.51	7.31	0.755	0.4	23.0	2.53	306	6.2	N/A	15.1&
223000	10.51	7.31	0.760	0.4	23.4	2.57	306	6.2	N/A	15.1&
224000	10.51	7.31	0.763	0.4	23.2	2.55	306	6.2	N/A	15.0&

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
225000	10.51	7.31	0.765	0.4	23.0	2.53	306	6.2	N/A	15.0&
230000	10.52	7.31	0.765	0.4	23.2	2.55	307	6.2	N/A	15.0&
231000	10.51	7.30	0.769	0.4	23.7	2.62	307	6.2	N/A	15.0&
232000	10.51	7.30	0.771	0.4	23.7	2.62	307	6.2	N/A	15.1&
233000	10.51	7.30	0.772	0.4	23.7	2.62	307	6.2	N/A	15.0&
234000	10.51	7.31	0.774	0.4	23.6	2.60	307	6.2	N/A	15.0&
235000	10.51	7.30	0.774	0.4	23.4	2.57	308	6.2	N/A	15.1&
Date (MMDDYY):	101795									
000000	10.52	7.30	0.776	0.4	23.5	2.59	309	6.2	N/A	15.0&
001000	10.51	7.31	0.777	0.4	23.7	2.62	310	6.2	N/A	15.0&
002000	10.52	7.31	0.778	0.4	23.7	2.61	310	6.2	N/A	15.0&
003000	10.51	7.31	0.780	0.4	23.6	2.60	310	6.2	N/A	15.0&
004000	10.52	7.31	0.781	0.4	22.8	2.51	311	6.2	N/A	15.1&
005000	10.52	7.30	0.780	0.4	22.2	2.44	312	6.2	N/A	15.0&
010000	10.52	7.31	0.781	0.4	21.8	2.40	312	6.2	N/A	15.0&
011000	10.52	7.31	0.783	0.4	21.4	2.36	312	6.2	N/A	15.0&
012000	10.52	7.30	0.783	0.4	21.6	2.38	313	6.2	N/A	15.0&
013000	10.52	7.30	0.784	0.4	21.8	2.40	313	6.2	N/A	15.0&
014000	10.52	7.30	0.783	0.4	22.0	2.42	313	6.2	N/A	15.0&
015000	10.52	7.30	0.783	0.4	21.6	2.38	313	6.2	N/A	15.0&
020000	10.52	7.30	0.784	0.4	21.6	2.38	314	6.2	N/A	14.9&
021000	10.52	7.30	0.785	0.4	21.4	2.36	314	6.2	N/A	15.0&
022000	10.52	7.30	0.785	0.4	21.0	2.32	314	6.2	N/A	15.0&
023000	10.52	7.30	0.786	0.4	20.8	2.30	315	6.2	N/A	14.9&
024000	10.52	7.30	0.784	0.4	20.8	2.30	315	6.2	N/A	14.9&
025000	10.52	7.30	0.785	0.4	20.6	2.27	315	6.2	N/A	15.0&
030000	10.52	7.30	0.785	0.4	20.6	2.27	315	6.2	N/A	14.9&
031000	10.52	7.30	0.786	0.4	20.6	2.27	315	6.2	N/A	14.9&
032000	10.52	7.30	0.785	0.4	20.5	2.25	315	6.2	N/A	14.9&
033000	10.52	7.30	0.785	0.4	20.3	2.23	316	6.2	N/A	14.9&
034000	10.52	7.30	0.784	0.4	20.5	2.25	316	6.2	N/A	14.9&
035000	10.52	7.30	0.784	0.4	21.0	2.32	316	6.2	N/A	14.9&
040000	10.52	7.30	0.784	0.4	21.4	2.36	316	6.2	N/A	14.9&
041000	10.52	7.30	0.784	0.4	21.8	2.40	316	6.2	N/A	14.9&
042000	10.52	7.30	0.783	0.4	22.0	2.42	316	6.2	N/A	14.9&
043000	10.52	7.30	0.781	0.4	22.2	2.44	316	6.2	N/A	14.9&
044000	10.52	7.30	0.783	0.4	22.4	2.47	316	6.2	N/A	15.0&
045000	10.52	7.29	0.778	0.4	22.2	2.44	316	6.2	N/A	14.9&
050000	10.54	7.30	0.778	0.4	22.0	2.42	316	6.2	N/A	14.9&
051000	10.52	7.29	0.775	0.4	21.4	2.36	316	6.2	N/A	14.9&
052000	10.52	7.29	0.774	0.4	20.8	2.30	316	6.2	N/A	14.8&
053000	10.54	7.29	0.772	0.4	19.9	2.19	316	6.2	N/A	14.9&
054000	10.54	7.29	0.770	0.4	19.7	2.17	316	6.2	N/A	14.9&
055000	10.52	7.29	0.772	0.4	19.3	2.13	316	6.2	N/A	14.8&
060000	10.54	7.29	0.772	0.4	19.3	2.12	316	6.2	N/A	14.9&
061000	10.54	7.29	0.772	0.4	18.9	2.08	316	6.2	N/A	14.9&
062000	10.54	7.29	0.774	0.4	19.1	2.10	316	6.2	N/A	14.9&
063000	10.54	7.29	0.775	0.4	19.1	2.10	316	6.2	N/A	14.8&

TABLE B-13
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
064000	10.54	7.28	0.776	0.4	18.9	2.08	317	6.2	N/A	14.9&
065000	10.54	7.28	0.774	0.4	19.1	2.10	317	6.2	N/A	14.9&
070000	10.54	7.28	0.772	0.4	18.9	2.08	317	6.2	N/A	14.9&
071000	10.54	7.28	0.771	0.4	18.7	2.06	317	6.2	N/A	14.8&
072000	10.54	7.28	0.772	0.4	18.5	2.04	318	6.2	N/A	14.9&
073000	10.54	7.28	0.770	0.4	18.7	2.06	318	6.2	N/A	14.8&
074000	10.54	7.28	0.766	0.4	18.3	2.02	318	6.2	N/A	14.8&
075000	10.54	7.28	0.766	0.4	17.9	1.97	318	6.2	N/A	14.8&
080000	10.54	7.28	0.766	0.4	17.5	1.93	319	6.2	N/A	14.8&
081000	10.54	7.28	0.767	0.4	17.2	1.89	318	6.2	N/A	14.9&
082000	10.54	7.28	0.768	0.4	17.0	1.87	318	6.2	N/A	14.9&
083000	10.54	7.28	0.768	0.4	16.6	1.83	318	6.2	N/A	14.9&
084000	10.54	7.28	0.769	0.4	16.4	1.80	319	6.2	N/A	14.9&
085000	10.54	7.28	0.769	0.4	16.2	1.78	319	6.2	N/A	14.9&
090000	10.54	7.28	0.768	0.4	16.0	1.76	319	6.2	N/A	14.9&
091000	10.54	7.28	0.768	0.4	16.0	1.76	319	6.2	N/A	14.9&
092000	10.54	7.28	0.770	0.4	15.8	1.74	320	6.2	N/A	14.9&
093000	10.54	7.28	0.771	0.4	16.0	1.76	320	6.2	N/A	14.9&
094000	10.54	7.27	0.768	0.4	15.2	1.68	320	6.2	N/A	14.9&
095000	10.54	7.27	0.764	0.4	15.4	1.70	320	6.2	N/A	15.0&
100000	10.54	7.28	0.764	0.4	15.4	1.70	320	6.2	N/A	14.9&
101000	10.54	7.28	0.765	0.4	15.6	1.72	320	6.2	N/A	15.0&
102000	10.54	7.28	0.766	0.4	16.0	1.76	320	6.2	N/A	15.0&
103000	10.54	7.28	0.767	0.4	16.0	1.76	320	6.2	N/A	15.0&
104000	10.54	7.28	0.768	0.4	16.2	1.78	320	6.2	N/A	15.1&
105000	10.54	7.28	0.768	0.4	16.2	1.78	320	6.2	N/A	15.0&
110000	10.56	7.28	0.769	0.4	16.0	1.76	321	6.2	N/A	15.0&
111000	10.54	7.27	0.767	0.4	15.8	1.74	321	6.2	N/A	15.0&
112000	10.54	7.28	0.766	0.4	15.8	1.74	321	6.2	N/A	15.0&
113000	10.54	7.28	0.768	0.4	15.8	1.74	321	6.2	N/A	15.0&
114000	10.54	7.28	0.768	0.4	15.8	1.74	321	6.2	N/A	15.0&

Recovery finished at 101795 114008

TABLE B-14
WATER QUALITY IN WELL 31555
DURING 72-HOUR CONSTANT RATE INJECTION TEST
INCLUDING RECOVERY, 10/13/95 THROUGH 10/17/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 55 CONT
Setup Date (MMDDYY): 101395
Setup Time (HHMMSS): 104048
Starting Date (MMDDYY): 101395
Starting Time (HHMMSS): 105000
Stopping Date (MMDDYY): 101795
Stopping Time (HHMMSS): 120000
Interval (HHMMSS): 001000
Warmup Disable

==> Setup Variables and Calibration <==

Temperature Centigrade
Specific Conductance/Resistivity Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated,
A->Comp 1, A->Method 1
% Sat 745.0
DODO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level Meters, Depth-100m
Turbidity Ratio, Auto range
Buzzer Disable
Stirrer Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 101395										
105000	10.40	7.16	0.958	0.5	19.3	2.11	413	7.3	N/A	12.7
110000	10.41	7.16	0.958	0.5	19.5	2.13	413	7.4	N/A	12.6
111000	10.40	7.16	0.957	0.5	19.5	2.13	413	7.3	N/A	12.7
112000	10.41	7.16	0.913	0.5	22.9	2.50	413	7.4	N/A	12.7
113000	10.38	7.16	0.914	0.5	24.2	2.65	413	7.5	N/A	12.7
114000	10.38	7.17	0.914	0.5	24.0	2.62	413	7.5	N/A	12.7
115000	10.38	7.17	0.914	0.5	23.6	2.57	414	7.5	N/A	12.7
120000	10.38	7.17	0.914	0.5	23.3	2.55	414	7.5	N/A	12.6
121000	10.38	7.17	0.915	0.5	23.3	2.55	414	7.5	N/A	12.7
122000	10.38	7.17	0.915	0.5	23.6	2.57	414	7.5	N/A	12.7
123000	10.39	7.16	0.914	0.5	23.8	2.60	414	7.5	N/A	12.7
124000	10.38	7.17	0.915	0.5	24.0	2.62	413	7.5	N/A	12.7
125000	10.38	7.17	0.914	0.5	24.0	2.62	413	7.5	N/A	12.8
130000	10.39	7.16	0.914	0.5	24.2	2.64	413	7.5	N/A	12.6
131000	10.41	7.16	0.913	0.5	24.2	2.64	413	7.5	N/A	12.7
132000	10.40	7.17	0.915	0.5	24.2	2.64	413	7.5	N/A	12.8
133000	10.38	7.17	0.914	0.5	24.2	2.65	413	7.5	N/A	12.8
134000	10.38	7.17	0.914	0.5	24.2	2.65	413	7.5	N/A	12.8
135000	10.38	7.17	0.914	0.5	24.2	2.65	413	7.5	N/A	12.8
140000	10.38	7.17	0.914	0.5	24.2	2.65	413	7.5	N/A	12.7
141000	10.38	7.17	0.915	0.5	24.2	2.65	413	7.5	N/A	12.8
142000	10.38	7.16	0.915	0.5	24.4	2.67	413	7.5	N/A	12.8
143000	10.40	7.16	0.915	0.5	24.2	2.64	414	7.5	N/A	12.8
144000	10.41	7.16	0.914	0.5	24.2	2.64	414	7.5	N/A	12.8

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
145000	10.40	7.16	0.915	0.5	24.4	2.67	415	7.5	N/A	12.8
150000	10.38	7.16	0.914	0.5	24.4	2.67	415	7.5	N/A	12.7
151000	10.40	7.15	0.913	0.5	24.4	2.67	416	7.5	N/A	12.8
152000	10.38	7.16	0.913	0.5	24.7	2.70	417	7.5	N/A	12.8
153000	10.40	7.16	0.915	0.5	24.4	2.67	417	7.5	N/A	12.8
154000	10.40	7.16	0.916	0.5	24.4	2.67	417	7.5	N/A	12.8
155000	10.40	7.16	0.916	0.5	24.6	2.69	418	7.5	N/A	12.8
160000	10.39	7.16	0.916	0.5	24.9	2.72	418	7.5	N/A	12.7
161000	10.40	7.16	0.915	0.5	24.9	2.72	419	7.5	N/A	12.7
162000	10.40	7.16	0.915	0.5	24.9	2.72	420	7.5	N/A	12.8
163000	10.40	7.16	0.915	0.5	25.1	2.74	420	7.5	N/A	12.8
164000	10.40	7.16	0.915	0.5	25.3	2.77	420	7.5	N/A	12.8
165000	10.40	7.16	0.916	0.5	25.3	2.77	420	7.5	N/A	12.8
170000	10.40	7.16	0.915	0.5	25.3	2.77	420	7.5	N/A	12.7
171000	10.40	7.16	0.915	0.5	25.3	2.77	420	7.5	N/A	12.8
172000	10.40	7.16	0.915	0.5	25.5	2.79	420	7.5	N/A	12.8
173000	10.38	7.16	0.916	0.5	25.6	2.79	420	7.5	N/A	12.8
174000	10.40	7.16	0.917	0.5	25.5	2.79	420	7.5	N/A	12.8
175000	10.40	7.16	0.916	0.5	25.5	2.79	420	7.5	N/A	12.8
180000	10.40	7.16	0.917	0.5	25.5	2.79	420	7.5	N/A	12.7
181000	10.40	7.16	0.917	0.5	25.5	2.79	420	7.5	N/A	12.7
182000	10.40	7.16	0.919	0.5	25.8	2.81	420	7.5	N/A	12.7
183000	10.41	7.16	0.917	0.5	25.7	2.81	420	7.5	N/A	12.7
184000	10.41	7.16	0.918	0.5	25.7	2.81	420	7.5	N/A	12.8
185000	10.40	7.16	0.921	0.5	25.8	2.81	420	7.5	N/A	12.7
190000	10.40	7.16	0.921	0.5	22.4	2.45	420	7.5	N/A	12.6
191000	10.40	7.16	0.921	0.5	26.0	2.84	420	7.5	N/A	12.7
192000	10.40	7.16	0.922	0.5	26.0	2.84	420	7.5	N/A	12.7
193000	10.40	7.16	0.923	0.5	26.0	2.84	420	7.5	N/A	12.7
194000	10.40	7.16	0.923	0.5	26.0	2.84	420	7.5	N/A	12.8
195000	20.80	8.47	0.009	0.0	54.6	4.79	340	16.4	N/A	12.7
200000	19.95	8.28	0.013	0.0	52.0	4.64	346	16.3	N/A	12.6
201000	19.56	8.22	0.013	0.0	53.8	4.84	356	16.3	N/A	12.7
202000	11.47	7.14	0.915	0.5	34.2	3.64	397	7.5	N/A	12.7
203000	10.98	7.14	0.921	0.5	30.8	3.32	398	7.5	N/A	12.7
204000	10.72	7.15	0.927	0.5	28.9	3.14	399	7.5	N/A	12.7
205000	10.61	7.15	0.927	0.5	25.5	2.78	400	7.5	N/A	12.7
210000	10.56	7.15	0.927	0.5	25.1	2.74	401	7.5	N/A	12.6
211000	10.52	7.15	0.924	0.5	28.0	3.05	401	7.5	N/A	12.7
212000	10.49	7.15	0.927	0.5	27.9	3.04	402	7.5	N/A	15.8&
213000	10.49	7.15	0.927	0.5	27.9	3.04	403	7.5	N/A	15.8&
214000	10.49	7.15	0.928	0.5	27.9	3.04	404	7.5	N/A	15.9&
215000	10.46	7.15	0.929	0.5	27.7	3.02	404	7.5	N/A	15.9&
220000	10.47	7.15	0.929	0.5	27.7	3.02	405	7.5	N/A	15.8&
221000	10.47	7.15	0.929	0.5	27.4	2.99	406	7.5	N/A	15.9&
222000	10.44	7.15	0.929	0.5	27.5	3.00	406	7.5	N/A	15.8&
223000	10.44	7.15	0.930	0.5	27.3	2.97	407	7.5	N/A	15.8&
224000	10.44	7.15	0.931	0.5	27.5	3.00	407	7.5	N/A	15.8&
225000	10.46	7.15	0.932	0.5	27.5	3.00	407	7.5	N/A	15.8&

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
230000	10.43	7.15	0.932	0.5	27.5	3.00	408	7.5	N/A	15.8&
231000	10.44	7.15	0.933	0.5	27.5	3.00	408	7.5	N/A	15.8&
232000	10.43	7.15	0.933	0.5	27.5	3.00	409	7.5	N/A	15.8&
233000	10.43	7.15	0.934	0.5	27.5	3.00	409	7.5	N/A	15.8&
234000	10.43	7.15	0.934	0.5	27.5	3.00	409	7.5	N/A	15.8&
235000	10.43	7.15	0.935	0.5	27.5	3.00	410	7.5	N/A	15.8&
Date (MMDDYY): 101495										
000000	10.44	7.15	0.937	0.5	27.5	3.00	410	7.5	N/A	15.7&
001000	10.43	7.15	0.936	0.5	27.5	3.00	410	7.5	N/A	15.7&
002000	10.43	7.15	0.937	0.5	27.5	3.00	411	7.5	N/A	15.8&
003000	10.43	7.15	0.937	0.5	27.5	3.00	411	7.5	N/A	15.8&
004000	10.43	7.15	0.938	0.5	27.5	3.00	411	7.5	N/A	15.7&
005000	10.41	7.15	0.938	0.5	27.5	3.00	411	7.5	N/A	15.8&
010000	10.43	7.15	0.940	0.5	27.5	3.00	411	7.5	N/A	15.7&
011000	10.43	7.15	0.940	0.5	27.5	3.00	412	7.5	N/A	15.7&
012000	10.43	7.15	0.940	0.5	27.5	3.00	412	7.5	N/A	15.8&
013000	10.43	7.15	0.941	0.5	27.5	3.00	412	7.5	N/A	15.6&
014000	10.43	7.15	0.941	0.5	27.5	3.00	412	7.5	N/A	15.7&
015000	10.43	7.15	0.942	0.5	27.5	3.00	413	7.5	N/A	15.6&
020000	10.43	7.15	0.943	0.5	27.3	2.98	413	7.5	N/A	15.8&
021000	10.43	7.15	0.942	0.5	27.3	2.98	413	7.5	N/A	15.7&
022000	10.43	7.15	0.943	0.5	27.5	3.00	413	7.5	N/A	15.8&
023000	10.43	7.15	0.943	0.5	27.3	2.98	414	7.5	N/A	15.8&
024000	10.44	7.15	0.942	0.5	27.3	2.97	414	7.5	N/A	15.8&
025000	10.43	7.15	0.944	0.5	27.3	2.98	414	7.5	N/A	15.6&
030000	10.44	7.15	0.944	0.5	27.3	2.97	414	7.5	N/A	15.7&
031000	10.43	7.15	0.944	0.5	27.3	2.98	414	7.5	N/A	15.6&
032000	10.43	7.15	0.944	0.5	27.3	2.98	414	7.5	N/A	15.7&
033000	10.43	7.15	0.944	0.5	27.3	2.98	415	7.5	N/A	15.7&
034000	10.41	7.15	0.944	0.5	27.3	2.98	415	7.5	N/A	15.6&
035000	10.43	7.15	0.944	0.5	27.3	2.98	415	7.5	N/A	15.6&
040000	10.43	7.15	0.945	0.5	27.3	2.98	415	7.5	N/A	15.7&
041000	10.43	7.15	0.944	0.5	27.3	2.98	416	7.5	N/A	15.7&
042000	10.43	7.15	0.944	0.5	27.3	2.98	416	7.5	N/A	15.7&
043000	10.43	7.15	0.944	0.5	27.3	2.98	416	7.5	N/A	15.6&
044000	10.43	7.15	0.944	0.5	27.3	2.98	416	7.5	N/A	15.7&
045000	10.44	7.15	0.943	0.5	27.3	2.97	416	7.5	N/A	15.7&
050000	10.43	7.15	0.943	0.5	27.3	2.98	416	7.5	N/A	12.7
051000	10.43	7.15	0.944	0.5	27.1	2.95	417	7.5	N/A	12.7
052000	10.43	7.15	0.944	0.5	27.3	2.98	417	7.5	N/A	12.7
053000	10.43	7.15	0.944	0.5	27.5	3.00	417	7.5	N/A	12.7
054000	10.43	7.15	0.944	0.5	27.3	2.98	417	7.5	N/A	12.6
055000	10.44	7.15	0.942	0.5	27.5	3.00	417	7.5	N/A	12.7
060000	10.44	7.15	0.941	0.5	27.5	3.00	417	7.5	N/A	12.5
061000	10.43	7.15	0.943	0.5	27.5	3.00	417	7.5	N/A	12.7
062000	10.44	7.15	0.943	0.5	27.5	3.00	417	7.5	N/A	12.7
063000	10.43	7.15	0.943	0.5	27.5	3.00	417	7.5	N/A	12.6

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
064000	10.44	7.15	0.943	0.5	27.5	3.00	417	7.5	N/A	12.6
065000	10.44	7.15	0.943	0.5	27.5	3.00	418	7.5	N/A	12.6
070000	10.46	7.15	0.944	0.5	27.5	3.00	418	7.5	N/A	12.5
071000	10.43	7.15	0.944	0.5	25.5	2.78	418	7.5	N/A	12.6
072000	10.46	7.15	0.942	0.5	27.5	3.00	418	7.5	N/A	12.6
073000	10.44	7.15	0.943	0.5	27.7	3.02	418	7.5	N/A	12.5
074000	10.44	7.15	0.944	0.5	24.6	2.68	418	7.5	N/A	12.3
075000	10.44	7.15	0.944	0.5	27.7	3.02	418	7.5	N/A	12.4
080000	10.44	7.15	0.942	0.5	27.7	3.02	418	7.5	N/A	12.2
081000	10.44	7.15	0.943	0.5	27.5	3.00	418	7.5	N/A	12.6
082000	10.44	7.15	0.944	0.5	27.7	3.02	419	7.5	N/A	12.5
083000	10.46	7.15	0.943	0.5	27.7	3.02	419	7.5	N/A	12.6
084000	10.46	7.15	0.943	0.5	27.7	3.02	419	7.5	N/A	12.4
085000	10.44	7.15	0.945	0.5	24.6	2.68	419	7.5	N/A	12.6
090000	10.44	7.15	0.943	0.5	27.7	3.02	419	7.5	N/A	12.5
091000	10.44	7.15	0.944	0.5	27.7	3.02	419	7.5	N/A	12.6
092000	11.23	6.47	0.013	0.0	43.6	4.68	412	0.1	N/A	12.3
093000	14.52	7.56	0.022	0.0	55.0	5.49	411	1.1	N/A	12.6
094000	13.67	7.42	0.025	0.0	54.7	5.56	400	1.0	N/A	12.6
095000	10.62	7.10	0.942	0.5	37.8	4.11	405	7.5	N/A	12.6
100000	10.54	7.12	0.942	0.5	31.1	3.39	405	7.5	N/A	12.5
101000	10.49	7.13	0.940	0.5	29.9	3.25	405	7.5	N/A	12.6
102000	10.48	7.13	0.941	0.5	29.4	3.21	405	7.5	N/A	12.6
103000	10.47	7.13	0.940	0.5	29.2	3.18	406	7.5	N/A	12.6
104000	10.46	7.13	0.942	0.5	28.3	3.09	407	7.5	N/A	12.6
105000	10.46	7.14	0.942	0.5	27.9	3.04	407	7.5	N/A	12.6
110000	10.46	7.14	0.944	0.5	27.5	3.00	408	7.5	N/A	12.5
111000	10.46	7.14	0.942	0.5	27.2	2.97	408	7.5	N/A	12.5
112000	10.46	7.14	0.943	0.5	27.0	2.95	409	7.5	N/A	12.5
113000	10.46	7.14	0.943	0.5	26.8	2.92	409	7.5	N/A	12.6
114000	10.46	7.14	0.945	0.5	26.6	2.90	410	7.5	N/A	12.5
115000	10.47	7.14	0.946	0.5	26.3	2.87	410	7.5	N/A	12.5
120000	10.46	7.14	0.947	0.5	26.4	2.87	411	7.5	N/A	12.5
121000	10.46	7.14	0.946	0.5	25.9	2.83	411	7.5	N/A	12.5
122000	10.46	7.14	0.947	0.5	25.7	2.80	411	7.5	N/A	12.6
123000	10.46	7.14	0.947	0.5	25.7	2.80	412	7.5	N/A	12.5
124000	10.46	7.14	0.948	0.5	25.5	2.78	412	7.5	N/A	12.5
125000	10.46	7.14	0.948	0.5	25.7	2.80	413	7.5	N/A	12.5
130000	10.46	7.14	0.950	0.5	26.6	2.90	413	7.5	N/A	12.4
131000	10.46	7.14	0.950	0.5	27.5	2.99	414	7.5	N/A	12.5
132000	10.46	7.14	0.951	0.5	27.9	3.04	414	7.5	N/A	12.5
133000	10.46	7.14	0.951	0.5	28.3	3.09	414	7.5	N/A	12.6
134000	10.48	7.14	0.953	0.5	28.8	3.14	414	7.5	N/A	12.5
135000	10.48	7.14	0.954	0.5	29.0	3.16	415	7.5	N/A	12.5
140000	10.47	7.14	0.956	0.5	29.2	3.18	415	7.5	N/A	12.4
141000	10.46	7.14	0.955	0.5	29.5	3.21	415	7.5	N/A	12.5
142000	10.46	7.14	0.956	0.5	29.7	3.24	416	7.5	N/A	12.5
143000	10.46	7.14	0.957	0.5	29.9	3.26	416	7.5	N/A	12.5

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
144000	10.46	7.14	0.957	0.5	29.9	3.26	416	7.5	N/A	12.5
145000	10.46	7.14	0.958	0.5	30.1	3.28	417	7.5	N/A	12.5
150000	10.47	7.14	0.959	0.5	30.3	3.31	417	7.5	N/A	12.4
151000	10.47	7.14	0.959	0.5	30.3	3.31	417	7.5	N/A	12.5
152000	10.46	7.14	0.960	0.5	30.3	3.31	417	7.5	N/A	12.5
153000	10.48	7.14	0.961	0.5	30.5	3.33	417	7.5	N/A	12.5
154000	10.48	7.14	0.962	0.5	30.5	3.33	418	7.5	N/A	12.5
155000	10.48	7.14	0.963	0.5	30.5	3.33	418	7.5	N/A	12.5
160000	10.49	7.14	0.963	0.5	30.7	3.35	418	7.5	N/A	12.5
161000	10.48	7.14	0.966	0.5	30.8	3.35	418	7.5	N/A	12.5
162000	10.49	7.14	0.967	0.5	30.7	3.35	419	7.5	N/A	12.5
163000	10.48	7.14	0.968	0.5	30.8	3.35	419	7.5	N/A	12.6
164000	10.48	7.14	0.970	0.5	31.0	3.38	419	7.5	N/A	12.5
165000	10.48	7.14	0.971	0.5	31.2	3.40	419	7.5	N/A	12.5
170000	10.48	7.14	0.973	0.5	31.2	3.40	420	7.5	N/A	12.5
171000	10.48	7.14	0.972	0.5	31.2	3.40	420	7.5	N/A	12.5
172000	10.48	7.14	0.973	0.5	31.4	3.43	420	7.5	N/A	12.5
173000	10.48	7.14	0.974	0.5	31.4	3.43	420	7.5	N/A	12.5
174000	10.48	7.14	0.975	0.5	31.6	3.45	420	7.5	N/A	12.5
175000	10.48	7.14	0.976	0.5	31.6	3.45	420	7.5	N/A	12.5
180000	10.48	7.14	0.976	0.5	31.9	3.47	421	7.5	N/A	12.5
181000	10.49	7.14	0.979	0.5	31.8	3.47	421	7.5	N/A	12.5
182000	10.48	7.14	0.980	0.5	32.1	3.50	421	7.5	N/A	12.5
183000	10.48	7.14	0.981	0.5	32.3	3.52	421	7.5	N/A	12.5
184000	10.49	7.14	0.982	0.5	32.3	3.52	421	7.5	N/A	12.5
185000	10.48	7.14	0.983	0.5	32.5	3.55	422	7.5	N/A	12.5
190000	10.48	7.14	0.985	0.5	32.5	3.55	422	7.5	N/A	12.4
191000	10.48	7.14	0.985	0.5	32.8	3.57	422	7.5	N/A	12.5
192000	10.48	7.14	0.986	0.5	30.3	3.30	422	7.5	N/A	12.5
193000	10.49	7.13	0.988	0.5	32.3	3.52	423	7.5	N/A	12.5
194000	10.51	7.14	0.988	0.5	32.5	3.54	423	7.5	N/A	12.5
195000	10.49	7.14	0.990	0.5	33.0	3.59	423	7.5	N/A	12.5
200000	10.49	7.14	0.992	0.5	33.2	3.61	423	7.5	N/A	12.4
201000	10.49	7.14	0.990	0.5	0.0	0.00	423	7.5	N/A	12.5
202000	10.51	7.14	0.992	0.5	33.1	3.61	423	7.5	N/A	12.5
203000	10.49	7.14	0.995	0.5	33.2	3.61	423	7.5	N/A	12.5
204000	10.51	7.14	0.995	0.5	33.4	3.63	423	7.5	N/A	12.6
205000	14.31	8.27	0.009	0.0	50.7	5.08	385	9.6	N/A	12.5
210000	12.88	8.07	0.011	0.0	46.8	4.84	386	9.6	N/A	12.4
211000	12.05	7.97	0.011	0.0	46.9	4.95	384	9.7	N/A	12.5
212000	10.98	7.11	0.964	0.5	39.7	4.27	432	7.5	N/A	12.5
213000	10.73	7.12	0.974	0.5	28.9	3.13	430	7.5	N/A	12.4
214000	10.62	7.13	0.985	0.5	31.5	3.42	430	7.5	N/A	15.5&
215000	10.59	7.13	0.993	0.5	32.6	3.54	429	7.5	N/A	15.5&
220000	10.54	7.13	0.996	0.5	33.1	3.60	430	7.5	N/A	15.5&
221000	10.53	7.13	0.999	0.5	33.4	3.63	430	7.5	N/A	15.6&
222000	10.53	7.13	1.002	0.5	33.4	3.63	430	7.5	N/A	15.5&
223000	10.53	7.13	1.004	0.5	33.1	3.61	430	7.5	N/A	15.6&

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
224000	10.54	7.13	1.006	0.5	33.1	3.60	430	7.5	N/A	15.5&
225000	10.52	7.13	1.007	0.5	32.9	3.58	430	7.5	N/A	15.5&
230000	10.52	7.13	1.007	0.5	32.9	3.58	431	7.5	N/A	15.5&
231000	10.51	7.13	1.007	0.5	32.9	3.59	431	7.5	N/A	15.5&
232000	10.52	7.13	1.006	0.5	32.7	3.56	431	7.5	N/A	15.5&
233000	10.52	7.13	1.004	0.5	32.5	3.53	431	7.5	N/A	15.5&
234000	10.51	7.13	1.001	0.5	32.5	3.54	431	7.5	N/A	15.4&
235000	10.51	7.13	0.997	0.5	32.3	3.51	431	7.5	N/A	15.4&
Date (MMDDYY):	101595									
000000	10.52	7.13	0.995	0.5	32.2	3.51	431	7.5	N/A	15.4&
001000	10.51	7.13	0.996	0.5	32.0	3.49	431	7.5	N/A	15.4&
002000	10.51	7.13	0.992	0.5	31.6	3.44	430	7.5	N/A	15.4&
003000	10.52	7.13	0.988	0.5	31.8	3.46	430	7.5	N/A	15.4&
004000	10.52	7.13	0.984	0.5	32.2	3.51	430	7.5	N/A	15.4&
005000	10.52	7.13	0.981	0.5	31.8	3.46	430	7.5	N/A	15.4&
010000	10.52	7.14	0.977	0.5	31.4	3.41	430	7.5	N/A	15.4&
011000	10.53	7.14	0.972	0.5	30.9	3.37	430	7.5	N/A	15.4&
012000	10.51	7.14	0.968	0.5	30.1	3.27	430	7.5	N/A	15.3&
013000	10.51	7.14	0.963	0.5	29.4	3.20	430	7.5	N/A	15.4&
014000	10.53	7.14	0.961	0.5	28.5	3.10	430	7.5	N/A	15.4&
015000	10.54	7.14	0.963	0.5	28.2	3.08	430	7.5	N/A	15.4&
020000	10.52	7.14	0.959	0.5	27.6	3.01	429	7.5	N/A	15.3&
021000	10.51	7.14	0.962	0.5	27.2	2.96	429	7.5	N/A	15.4&
022000	10.53	7.14	0.960	0.5	26.3	2.86	429	7.5	N/A	15.4&
023000	10.54	7.14	0.958	0.5	25.4	2.76	429	7.5	N/A	15.4&
024000	10.53	7.15	0.958	0.5	24.3	2.65	428	7.5	N/A	15.4&
025000	10.54	7.15	0.957	0.5	23.4	2.55	427	7.5	N/A	15.4&
030000	10.54	7.15	0.953	0.5	22.7	2.47	427	7.5	N/A	15.3&
031000	10.53	7.15	0.937	0.5	22.3	2.43	427	7.5	N/A	15.3&
032000	10.53	7.16	0.920	0.5	22.1	2.41	427	7.5	N/A	15.3&
033000	10.53	7.15	0.924	0.5	21.6	2.36	426	7.5	N/A	15.3&
034000	10.53	7.16	0.951	0.5	22.1	2.41	425	7.5	N/A	15.3&
035000	10.53	7.16	0.960	0.5	22.1	2.41	425	7.5	N/A	15.3&
040000	10.54	7.16	0.962	0.5	22.1	2.40	424	7.5	N/A	15.3&
041000	10.54	7.16	0.957	0.5	21.8	2.38	424	7.5	N/A	15.3&
042000	10.53	7.16	0.955	0.5	22.1	2.41	423	7.5	N/A	15.3&
043000	10.53	7.16	0.957	0.5	21.6	2.36	422	7.5	N/A	15.3&
044000	10.54	7.16	0.954	0.5	21.8	2.38	423	7.5	N/A	15.3&
045000	10.54	7.16	0.946	0.5	23.2	2.52	422	7.5	N/A	15.3&
050000	10.53	7.16	0.956	0.5	22.7	2.48	422	7.5	N/A	15.3&
051000	10.53	7.16	0.953	0.5	21.6	2.36	422	7.5	N/A	15.3&
052000	10.53	7.16	0.944	0.5	21.2	2.31	421	7.5	N/A	15.4&
053000	10.53	7.18	0.943	0.5	21.2	2.31	420	7.5	N/A	15.3&
054000	10.56	7.16	0.947	0.5	21.0	2.28	420	7.5	N/A	15.3&
055000	10.53	7.17	0.940	0.5	20.3	2.21	419	7.5	N/A	15.3&
060000	10.54	7.18	0.936	0.5	19.2	2.09	418	7.5	N/A	15.2&
061000	10.53	7.17	0.934	0.5	18.6	2.02	419	7.5	N/A	15.2&

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
062000	10.53	7.17	0.922	0.5	18.1	1.97	417	7.5	N/A	15.3&
063000	10.54	7.18	0.932	0.5	17.7	1.92	417	7.5	N/A	15.3&
064000	10.54	7.19	0.921	0.5	17.7	1.92	417	7.5	N/A	15.3&
065000	10.56	7.19	0.909	0.5	17.0	1.85	416	7.5	N/A	15.2&
070000	10.54	7.19	0.898	0.5	16.8	1.83	415	7.5	N/A	15.2&
071000	10.54	7.18	0.926	0.5	17.2	1.87	414	7.5	N/A	15.2&
072000	10.54	7.19	0.878	0.5	17.7	1.92	414	7.5	N/A	15.2&
073000	10.56	7.18	0.903	0.5	17.2	1.87	413	7.5	N/A	15.2&
074000	10.54	7.18	0.919	0.5	18.1	1.97	413	7.5	N/A	15.2&
075000	10.56	7.18	0.912	0.5	18.5	2.02	412	7.5	N/A	15.2&
080000	10.56	7.18	0.918	0.5	17.4	1.90	412	7.5	N/A	15.2&
081000	10.56	7.19	0.928	0.5	15.4	1.68	412	7.5	N/A	15.2&
082000	10.54	7.18	0.916	0.5	16.3	1.78	411	7.5	N/A	15.2&
083000	10.57	7.18	0.920	0.5	13.2	1.44	410	7.5	N/A	15.2&
084000	10.54	7.19	0.900	0.5	16.6	1.80	409	7.5	N/A	15.2&
085000	10.56	7.38	0.389	0.2	15.7	1.71	400	1.9	N/A	15.2&
090000	11.99	7.61	0.011	0.0	50.1	5.30	389	13.1	N/A	12.9
091000	11.04	7.50	0.012	0.0	51.0	5.51	389	13.3	N/A	12.9
092000	10.70	7.09	0.826	0.4	52.8	5.73	414	7.6	N/A	12.9
093000	10.60	7.15	0.840	0.4	15.4	1.68	408	7.5	N/A	12.9
094000	10.58	7.17	0.898	0.5	10.6	1.15	405	7.5	N/A	12.9
095000	10.56	7.17	0.898	0.5	13.2	1.44	402	7.5	N/A	12.9
100000	10.57	7.17	0.910	0.5	13.2	1.44	401	7.6	N/A	12.8
101000	10.57	7.19	0.929	0.5	13.4	1.46	399	7.5	N/A	12.9
102000	10.56	7.19	0.903	0.5	14.3	1.56	398	7.5	N/A	12.9
103000	10.56	7.18	0.924	0.5	15.0	1.63	397	7.5	N/A	12.9
104000	10.56	7.17	0.913	0.5	15.4	1.68	396	7.5	N/A	12.9
105000	10.57	7.20	0.940	0.5	15.6	1.70	395	7.5	N/A	12.9
110000	10.56	7.19	0.904	0.5	15.4	1.68	394	7.5	N/A	12.7
111000	10.59	7.20	0.912	0.5	15.2	1.65	394	7.5	N/A	12.7
112000	10.59	7.20	0.901	0.5	15.2	1.65	392	7.5	N/A	12.8
113000	10.57	7.21	0.918	0.5	15.0	1.63	391	7.5	N/A	12.9
114000	10.56	7.19	0.913	0.5	14.8	1.61	392	7.5	N/A	12.9
115000	10.57	7.19	0.897	0.5	15.0	1.63	391	7.5	N/A	12.9
120000	10.58	7.19	0.891	0.5	14.1	1.53	392	7.5	N/A	12.8
121000	10.57	7.20	0.896	0.5	13.4	1.46	390	7.5	N/A	12.9
122000	10.56	7.20	0.883	0.5	13.0	1.42	390	7.5	N/A	12.9
123000	10.58	7.21	0.906	0.5	13.2	1.44	389	7.5	N/A	12.9
124000	10.58	7.20	0.885	0.5	13.2	1.44	388	7.5	N/A	12.9
125000	10.58	7.22	0.844	0.4	13.0	1.42	388	7.5	N/A	12.9
130000	10.58	7.20	0.843	0.4	12.1	1.32	388	7.5	N/A	12.8
131000	10.58	7.22	0.854	0.4	11.7	1.27	386	7.5	N/A	12.9
132000	10.58	7.20	0.853	0.4	11.5	1.25	385	7.5	N/A	12.9
133000	10.59	7.22	0.845	0.4	11.0	1.20	385	7.5	N/A	12.9
134000	10.58	7.20	0.866	0.5	10.8	1.18	384	7.5	N/A	12.9
135000	10.59	7.21	0.871	0.5	10.6	1.15	383	7.5	N/A	12.9
140000	10.59	7.22	0.859	0.4	10.6	1.15	382	7.5	N/A	12.8
141000	10.58	7.20	0.858	0.4	10.4	1.13	382	7.5	N/A	12.9
142000	10.58	7.22	0.857	0.4	10.4	1.13	382	7.5	N/A	12.8

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
143000	10.59	7.22	0.859	0.4	10.1	1.10	381	7.5	N/A	12.9
144000	10.59	7.21	0.852	0.4	9.9	1.08	380	7.5	N/A	12.9
145000	10.59	7.22	0.846	0.4	9.5	1.03	380	7.5	N/A	12.9
150000	10.59	7.23	0.794	0.4	8.8	0.96	379	7.5	N/A	12.8
151000	10.59	7.21	0.838	0.4	7.9	0.86	378	7.5	N/A	12.8
152000	10.59	7.22	0.811	0.4	7.3	0.79	377	7.5	N/A	12.9
153000	10.60	7.22	0.826	0.4	6.6	0.72	377	7.5	N/A	12.8
154000	10.59	7.22	0.807	0.4	6.2	0.67	376	7.5	N/A	12.9
155000	10.59	7.22	0.816	0.4	5.9	0.65	375	7.5	N/A	12.8
160000	10.60	7.21	0.823	0.4	5.9	0.65	374	7.5	N/A	12.7
161000	10.59	7.23	0.813	0.4	5.9	0.65	373	7.5	N/A	12.8
162000	10.61	7.23	0.802	0.4	5.7	0.62	372	7.5	N/A	12.8
163000	10.60	7.23	0.801	0.4	5.5	0.60	372	7.5	N/A	12.8
164000	10.60	7.22	0.806	0.4	5.7	0.62	371	7.5	N/A	12.8
165000	10.62	7.23	0.804	0.4	5.5	0.60	370	7.5	N/A	12.8
170000	10.61	7.23	0.800	0.4	5.1	0.55	369	7.5	N/A	12.7
171000	10.61	7.23	0.801	0.4	4.8	0.53	369	7.5	N/A	12.8
172000	10.62	7.23	0.790	0.4	4.6	0.50	369	7.5	N/A	12.8
173000	10.61	7.23	0.789	0.4	4.6	0.50	368	7.5	N/A	12.8
174000	10.61	7.23	0.779	0.4	4.0	0.43	367	7.5	N/A	12.8
175000	10.61	7.23	0.770	0.4	3.5	0.38	367	7.5	N/A	12.8
180000	10.62	7.23	0.771	0.4	3.3	0.36	366	7.5	N/A	12.7
181000	10.61	7.23	0.770	0.4	3.1	0.34	366	7.5	N/A	12.7
182000	10.61	7.22	0.775	0.4	2.9	0.31	365	7.5	N/A	12.8
183000	10.62	7.23	0.766	0.4	2.9	0.31	364	7.5	N/A	12.7
184000	10.61	7.23	0.761	0.4	2.6	0.29	364	7.5	N/A	12.8
185000	10.62	7.23	0.754	0.4	2.4	0.26	363	7.5	N/A	12.8
190000	10.62	7.23	0.753	0.4	2.0	0.22	363	7.5	N/A	12.7
191000	10.62	7.23	0.751	0.4	1.5	0.17	362	7.5	N/A	12.7
192000	10.64	7.23	0.750	0.4	0.0	0.00	361	7.5	N/A	12.7
193000	10.62	7.23	0.746	0.4	0.0	0.00	361	7.5	N/A	12.7
194000	10.62	7.24	0.739	0.4	1.3	0.14	360	7.5	N/A	12.7
195000	10.64	7.23	0.736	0.4	0.0	0.00	359	7.5	N/A	12.7
200000	10.64	7.23	0.736	0.4	2.4	0.26	359	7.5	N/A	12.6
201000	10.62	7.23	0.733	0.4	1.3	0.14	358	7.5	N/A	12.7
202000	10.62	7.23	0.731	0.4	1.3	0.14	357	7.5	N/A	12.6
203000	10.54	8.41	0.013	0.0	49.4	5.40	334	1.5	N/A	12.7
204000	8.44	8.15	0.018	0.0	49.9	5.73	354	1.5	N/A	12.7
205000	10.71	7.21	0.700	0.4	8.6	0.93	383	7.6	N/A	12.7
210000	10.69	7.22	0.700	0.4	3.5	0.38	379	7.5	N/A	12.6
211000	10.66	7.23	0.702	0.4	0.2	0.02	376	7.5	N/A	12.6
212000	10.64	7.23	0.704	0.4	1.8	0.19	373	7.5	N/A	12.7
213000	10.67	7.23	0.705	0.4	1.3	0.14	371	7.5	N/A	12.7
214000	10.64	7.23	0.705	0.4	1.3	0.14	369	7.5	N/A	15.4&
215000	10.64	7.24	0.706	0.4	1.3	0.14	368	7.5	N/A	15.4&
220000	10.65	7.23	0.704	0.4	1.3	0.14	366	7.6	N/A	15.3&
221000	10.64	7.23	0.705	0.4	1.1	0.12	366	7.5	N/A	15.3&
222000	10.64	7.24	0.704	0.4	1.1	0.12	364	7.5	N/A	15.4&
223000	10.65	7.23	0.702	0.4	1.1	0.12	363	7.5	N/A	15.4&
224000	10.64	7.24	0.705	0.4	1.1	0.12	362	7.5	N/A	15.3&
225000	10.65	7.23	0.702	0.4	1.1	0.12	362	7.5	N/A	15.3&
230000	10.67	7.23	0.703	0.4	1.1	0.12	361	7.5	N/A	15.3&

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
231000	10.67	7.23	0.702	0.4	1.3	0.14	360	7.5	N/A	15.2&
232000	10.65	7.23	0.701	0.4	1.1	0.12	359	7.5	N/A	15.3&
233000	10.67	7.23	0.702	0.4	1.1	0.12	358	7.5	N/A	15.2&
234000	10.66	7.24	0.702	0.4	1.1	0.12	357	7.5	N/A	15.2&
235000	10.67	7.23	0.702	0.4	1.3	0.14	357	7.5	N/A	15.2&
Date (MMDDYY): 101695										
000000	10.66	7.24	0.700	0.4	1.3	0.14	356	7.6	N/A	15.2&
001000	10.67	7.23	0.701	0.4	1.3	0.14	355	7.5	N/A	15.2&
002000	10.67	7.23	0.699	0.4	1.1	0.12	354	7.5	N/A	15.2&
003000	10.66	7.24	0.700	0.4	1.1	0.12	354	7.6	N/A	15.2&
004000	10.67	7.23	0.700	0.4	1.3	0.14	353	7.5	N/A	15.2&
005000	10.66	7.24	0.700	0.4	1.1	0.12	352	7.5	N/A	15.2&
010000	10.67	7.24	0.703	0.4	1.1	0.12	352	7.5	N/A	15.2&
011000	10.67	7.24	0.704	0.4	1.1	0.12	350	7.5	N/A	15.2&
012000	10.67	7.24	0.704	0.4	1.1	0.12	350	7.5	N/A	15.2&
013000	10.67	7.23	0.702	0.4	1.3	0.14	349	7.5	N/A	15.2&
014000	10.67	7.23	0.704	0.4	1.3	0.14	348	7.5	N/A	15.2&
015000	10.67	7.23	0.702	0.4	1.3	0.14	347	7.5	N/A	15.2&
020000	10.69	7.23	0.702	0.4	1.1	0.12	347	7.6	N/A	15.2&
021000	10.67	7.23	0.701	0.4	1.1	0.12	346	7.5	N/A	15.1&
022000	10.67	7.24	0.701	0.4	1.1	0.12	345	7.6	N/A	15.2&
023000	10.69	7.23	0.699	0.4	1.1	0.12	344	7.6	N/A	15.2&
024000	10.69	7.23	0.700	0.4	1.3	0.14	344	7.6	N/A	15.2&
025000	10.69	7.24	0.701	0.4	1.3	0.14	343	7.6	N/A	15.2&
030000	10.70	7.23	0.700	0.4	1.3	0.14	342	7.6	N/A	15.3&
031000	10.70	7.23	0.699	0.4	1.3	0.14	341	7.6	N/A	15.1&
032000	10.69	7.24	0.700	0.4	1.1	0.12	340	7.6	N/A	15.1&
033000	10.69	7.24	0.700	0.4	1.1	0.12	339	7.6	N/A	15.1&
034000	10.69	7.24	0.699	0.4	1.1	0.12	339	7.6	N/A	15.1&
035000	10.71	7.24	0.698	0.4	1.1	0.12	338	7.6	N/A	15.1&
040000	10.71	7.24	0.699	0.4	1.3	0.14	337	7.6	N/A	15.1&
041000	10.72	7.24	0.697	0.4	1.3	0.14	337	7.6	N/A	15.1&
042000	10.72	7.24	0.696	0.4	1.3	0.14	336	7.6	N/A	15.1&
043000	10.72	7.24	0.697	0.4	1.3	0.14	336	7.6	N/A	15.1&
044000	10.71	7.24	0.697	0.4	1.1	0.12	335	7.6	N/A	15.1&
045000	10.72	7.24	0.696	0.4	1.1	0.12	334	7.6	N/A	15.1&
050000	10.72	7.24	0.695	0.4	1.1	0.12	334	7.6	N/A	15.1&
051000	10.71	7.24	0.697	0.4	1.3	0.14	333	7.6	N/A	13.3
052000	10.73	7.24	0.695	0.4	1.3	0.14	332	7.6	N/A	13.1
053000	10.73	7.24	0.695	0.4	1.3	0.14	331	7.6	N/A	13.0
054000	10.73	7.24	0.695	0.4	1.1	0.12	331	7.6	N/A	12.9
055000	10.72	7.24	0.696	0.4	1.1	0.12	330	7.6	N/A	12.9
060000	10.73	7.24	0.694	0.4	1.3	0.14	329	7.6	N/A	12.7
061000	10.72	7.24	0.695	0.4	1.3	0.14	328	7.6	N/A	12.8
062000	10.73	7.24	0.694	0.4	1.1	0.12	328	7.6	N/A	12.9
063000	10.75	7.24	0.694	0.4	1.3	0.14	327	7.6	N/A	12.7
064000	10.74	7.24	0.694	0.4	1.1	0.12	326	7.6	N/A	12.7
065000	10.74	7.24	0.694	0.4	1.1	0.12	325	7.6	N/A	12.7

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
070000	10.75	7.24	0.692	0.4	1.3	0.14	324	7.6	N/A	12.6
071000	10.75	7.24	0.692	0.4	1.3	0.14	324	7.6	N/A	12.7
072000	10.77	7.24	0.693	0.4	1.1	0.12	323	7.6	N/A	12.7
073000	10.77	7.24	0.693	0.4	1.1	0.12	323	7.6	N/A	12.7
074000	10.75	7.24	0.694	0.4	1.3	0.14	323	7.6	N/A	12.7
075000	10.75	7.24	0.694	0.4	1.1	0.12	323	7.6	N/A	12.7
080000	10.77	7.24	0.691	0.4	1.3	0.14	323	7.6	N/A	12.5
081000	10.75	7.24	0.692	0.4	1.1	0.12	322	7.6	N/A	12.6
082000	10.77	7.24	0.692	0.4	1.1	0.12	322	7.6	N/A	12.6
083000	10.77	7.24	0.692	0.4	0.0	0.00	322	7.6	N/A	12.6
084000	10.77	7.24	0.692	0.4	1.3	0.14	322	7.6	N/A	12.6
085000	10.78	7.24	0.691	0.4	1.3	0.14	321	7.6	N/A	12.6
090000	10.78	7.24	0.690	0.4	1.3	0.14	321	7.6	N/A	12.5
091000	10.80	7.24	0.691	0.4	0.0	0.00	321	7.6	N/A	12.6
092000	10.79	7.24	0.690	0.4	1.3	0.14	320	7.6	N/A	12.6
093000	11.08	7.09	0.010	0.0	12.1	1.30	361	0.2	N/A	12.7
094000	7.33	7.73	0.013	0.0	49.8	5.88	354	0.3	N/A	12.7
095000	8.58	7.48	0.008	0.0	53.7	6.14	346	0.2	N/A	12.7
100000	10.87	7.19	0.678	0.3	12.2	1.32	366	7.6	N/A	12.5
101000	10.85	7.20	0.679	0.3	8.3	0.90	360	7.6	N/A	12.6
102000	10.84	7.21	0.681	0.4	4.4	0.47	356	7.6	N/A	12.6
103000	10.85	7.22	0.681	0.4	5.2	0.57	352	7.6	N/A	12.6
104000	10.85	7.23	0.682	0.4	3.5	0.38	350	7.6	N/A	12.7
105000	10.84	7.23	0.684	0.4	2.2	0.24	347	7.6	N/A	12.7
110000	10.87	7.23	0.683	0.4	1.5	0.16	345	7.6	N/A	12.5
111000	10.87	7.23	0.684	0.4	0.4	0.05	343	7.6	N/A	12.6
112000	10.87	7.23	0.685	0.4	1.3	0.14	341	7.6	N/A	12.5
113000	10.87	7.23	0.685	0.4	1.3	0.14	339	7.6	N/A	12.6
114000	10.87	7.23	0.685	0.4	1.1	0.12	338	7.6	N/A	12.7
115000	10.85	7.23	0.686	0.4	1.1	0.12	337	7.6	N/A	12.6
120000	10.87	7.24	0.686	0.4	1.1	0.12	335	7.6	N/A	12.5
121000	10.87	7.24	0.686	0.4	1.1	0.12	334	7.6	N/A	12.6
122000	10.88	7.24	0.686	0.4	1.1	0.12	333	7.6	N/A	12.6
123000	10.87	7.24	0.686	0.4	1.1	0.12	332	7.6	N/A	12.7
124000	10.87	7.24	0.686	0.4	1.1	0.12	331	7.6	N/A	12.6
125000	10.89	7.24	0.685	0.4	1.1	0.12	330	7.6	N/A	12.7
130000	10.90	7.24	0.685	0.4	1.1	0.12	329	7.6	N/A	12.5
131000	10.90	7.24	0.686	0.4	1.1	0.12	328	7.6	N/A	12.6
132000	10.90	7.24	0.684	0.4	1.3	0.14	328	7.6	N/A	12.6
133000	10.90	7.24	0.685	0.4	1.3	0.14	327	7.6	N/A	12.6
134000	10.91	7.24	0.686	0.4	1.1	0.12	326	7.6	N/A	12.7
135000	10.90	7.24	0.686	0.4	1.1	0.12	326	7.6	N/A	12.7
140000	10.91	7.24	0.685	0.4	1.3	0.14	325	7.6	N/A	12.6
141000	10.91	7.24	0.685	0.4	1.1	0.12	325	7.6	N/A	12.7
142000	10.93	7.24	0.685	0.4	1.1	0.12	324	7.6	N/A	12.7
143000	10.93	7.24	0.685	0.4	1.1	0.12	324	7.6	N/A	12.7
144000	10.93	7.24	0.685	0.4	1.3	0.14	324	7.6	N/A	12.7
145000	10.93	7.24	0.685	0.4	1.3	0.14	323	7.6	N/A	12.6
150000	10.95	7.24	0.686	0.4	1.3	0.14	323	7.6	N/A	12.6

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
151000	10.93	7.24	0.684	0.4	1.1	0.12	322	7.6	N/A	12.6
152000	10.93	7.24	0.685	0.4	1.3	0.14	322	7.6	N/A	12.7
153000	10.98	7.23	0.679	0.3	1.1	0.12	339	7.5	N/A	12.7
154000	11.00	7.23	0.681	0.4	6.7	0.72	349	7.5	N/A	12.7
155000	11.01	7.23	0.681	0.4	11.3	1.21	355	7.5	N/A	12.7
160000	11.01	7.23	0.679	0.3	12.6	1.35	360	7.5	N/A	12.6
161000	11.00	7.23	0.680	0.3	13.4	1.45	363	7.5	N/A	12.7
162000	11.01	7.23	0.680	0.3	13.9	1.49	367	7.5	N/A	12.7
163000	10.98	7.23	0.679	0.3	14.1	1.52	369	7.5	N/A	12.7
164000	11.00	7.23	0.678	0.3	14.5	1.56	372	7.5	N/A	12.7
165000	10.97	7.23	0.680	0.4	15.0	1.61	373	7.5	N/A	12.7
170000	10.98	7.23	0.679	0.3	15.2	1.64	376	7.5	N/A	12.6
171000	10.98	7.23	0.680	0.4	15.0	1.61	379	7.5	N/A	12.7
172000	10.97	7.23	0.681	0.4	15.2	1.64	380	7.5	N/A	12.6
173000	10.97	7.23	0.684	0.4	15.6	1.68	382	7.5	N/A	12.7
174000	10.96	7.23	0.690	0.4	16.3	1.76	384	7.4	N/A	12.7
175000	10.95	7.23	0.697	0.4	16.9	1.83	386	7.4	N/A	12.7
180000	10.96	7.23	0.699	0.4	14.3	1.54	387	7.4	N/A	12.6
181000	10.96	7.23	0.704	0.4	18.4	1.99	388	7.5	N/A	12.6
182000	10.96	7.23	0.709	0.4	18.7	2.01	389	7.4	N/A	12.7
183000	10.96	7.23	0.711	0.4	17.3	1.87	389	7.4	N/A	12.6
184000	10.96	7.23	0.710	0.4	15.0	1.61	390	7.4	N/A	12.6
185000	10.96	7.23	0.712	0.4	17.1	1.85	390	7.4	N/A	12.6
190000	10.96	7.23	0.713	0.4	16.9	1.83	391	7.4	N/A	12.5
191000	14.40	7.85	0.010	0.0	47.7	4.78	376	53.1	N/A	12.6
192000	12.31	7.62	0.011	0.0	45.8	4.81	388	55.3	N/A	12.6
193000	10.97	7.20	0.684	0.4	38.0	4.10	406	7.4	N/A	12.6
194000	10.75	7.22	0.684	0.4	10.7	1.16	400	7.5	N/A	12.6
195000	10.77	7.23	0.685	0.4	10.5	1.14	397	7.4	N/A	15.5&
200000	10.82	7.23	0.684	0.4	10.7	1.16	395	7.4	N/A	15.3&
201000	10.85	7.23	0.684	0.4	6.3	0.68	393	7.4	N/A	15.3&
202000	10.88	7.23	0.686	0.4	10.0	1.08	392	7.4	N/A	15.3&
203000	10.89	7.23	0.688	0.4	9.8	1.06	392	7.4	N/A	15.3&
204000	10.91	7.23	0.695	0.4	9.8	1.06	392	7.4	N/A	15.2&
205000	10.93	7.23	0.697	0.4	9.6	1.03	391	7.4	N/A	15.2&
210000	10.95	7.24	0.701	0.4	9.3	1.01	390	7.4	N/A	15.3&
211000	10.95	7.24	0.695	0.4	9.3	1.01	389	7.4	N/A	15.2&
212000	10.93	7.24	0.695	0.4	9.6	1.03	389	7.4	N/A	15.2&
213000	10.95	7.24	0.695	0.4	9.1	0.98	388	7.4	N/A	15.3&
214000	10.93	7.24	0.699	0.4	8.9	0.96	388	7.4	N/A	15.2&
215000	10.96	7.24	0.700	0.4	8.9	0.96	387	7.4	N/A	15.2&
220000	10.96	7.24	0.703	0.4	8.9	0.96	387	7.4	N/A	15.2&
221000	10.96	7.24	0.706	0.4	8.9	0.96	386	7.4	N/A	15.2&
222000	10.96	7.24	0.708	0.4	8.9	0.96	386	7.4	N/A	15.2&
223000	10.96	7.24	0.709	0.4	8.7	0.94	385	7.4	N/A	15.1&
224000	10.96	7.24	0.710	0.4	8.5	0.91	385	7.4	N/A	15.1&
225000	10.98	7.24	0.704	0.4	8.2	0.89	384	7.4	N/A	15.1&
230000	10.98	7.24	0.702	0.4	8.0	0.86	384	7.4	N/A	15.1&
231000	10.97	7.24	0.704	0.4	7.6	0.82	383	7.4	N/A	15.1&

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
232000	10.97	7.24	0.705	0.4	7.4	0.80	383	7.4	N/A	15.1&
233000	10.98	7.24	0.705	0.4	7.4	0.79	383	7.4	N/A	15.1&
234000	10.98	7.24	0.707	0.4	7.2	0.77	383	7.4	N/A	15.1&
235000	10.98	7.24	0.706	0.4	7.2	0.77	382	7.4	N/A	15.1&
Date (MMDDYY):	101795									
000000	10.98	7.24	0.709	0.4	6.9	0.75	382	7.4	N/A	15.1&
001000	10.97	7.24	0.708	0.4	6.7	0.73	380	7.4	N/A	15.1&
002000	10.98	7.24	0.709	0.4	6.5	0.70	379	7.4	N/A	15.1&
003000	10.98	7.24	0.708	0.4	6.3	0.68	379	7.4	N/A	15.1&
004000	10.98	7.24	0.710	0.4	6.1	0.65	377	7.4	N/A	15.1&
005000	11.00	7.24	0.709	0.4	5.8	0.63	376	7.4	N/A	15.1&
010000	11.00	7.24	0.709	0.4	5.6	0.61	375	7.4	N/A	15.1&
011000	11.00	7.24	0.709	0.4	5.4	0.58	374	7.4	N/A	14.9&
012000	11.00	7.24	0.709	0.4	5.4	0.58	373	7.4	N/A	15.0&
013000	11.00	7.24	0.710	0.4	5.2	0.56	372	7.4	N/A	15.0&
014000	11.00	7.24	0.712	0.4	5.0	0.54	371	7.4	N/A	15.0&
015000	11.00	7.25	0.713	0.4	5.2	0.56	371	7.4	N/A	15.0&
020000	11.00	7.25	0.714	0.4	4.8	0.51	370	7.4	N/A	15.0&
021000	11.00	7.25	0.714	0.4	4.8	0.51	369	7.4	N/A	15.0&
022000	11.00	7.25	0.715	0.4	4.5	0.49	369	7.4	N/A	15.0&
023000	11.00	7.25	0.715	0.4	4.5	0.49	369	7.4	N/A	15.0&
024000	10.98	7.25	0.718	0.4	4.3	0.47	368	7.4	N/A	15.0&
025000	11.00	7.25	0.718	0.4	4.3	0.47	368	7.4	N/A	15.0&
030000	11.00	7.25	0.717	0.4	4.1	0.44	367	7.4	N/A	15.0&
031000	11.00	7.25	0.718	0.4	4.1	0.44	367	7.4	N/A	15.0&
032000	10.98	7.25	0.719	0.4	4.1	0.44	366	7.4	N/A	15.0&
033000	11.00	7.25	0.720	0.4	3.9	0.42	366	7.4	N/A	15.0&
034000	11.00	7.25	0.721	0.4	3.9	0.42	366	7.4	N/A	15.0&
035000	10.98	7.25	0.722	0.4	3.7	0.40	365	7.4	N/A	15.0&
040000	11.01	7.25	0.723	0.4	3.7	0.40	365	7.4	N/A	15.0&
041000	11.00	7.25	0.722	0.4	3.7	0.40	363	7.4	N/A	15.0&
042000	10.98	7.25	0.723	0.4	3.7	0.40	363	7.4	N/A	15.0&
043000	10.98	7.25	0.723	0.4	3.7	0.40	362	7.4	N/A	15.0&
044000	11.00	7.25	0.724	0.4	3.5	0.37	361	7.4	N/A	15.0&
045000	10.98	7.25	0.724	0.4	3.5	0.37	360	7.4	N/A	15.0&
050000	11.01	7.25	0.724	0.4	3.5	0.37	355	7.4	N/A	15.0&
051000	11.00	7.25	0.724	0.4	3.5	0.37	347	7.4	N/A	15.0&
052000	11.00	7.25	0.725	0.4	3.5	0.37	343	7.4	N/A	15.0&
053000	11.01	7.25	0.725	0.4	3.2	0.35	340	7.4	N/A	15.0&
054000	11.00	7.25	0.725	0.4	3.2	0.35	338	7.4	N/A	15.0&
055000	11.00	7.25	0.726	0.4	3.0	0.33	336	7.4	N/A	15.0&
060000	11.01	7.25	0.727	0.4	3.0	0.33	334	7.4	N/A	14.9&
061000	11.00	7.25	0.726	0.4	3.0	0.33	333	7.4	N/A	15.0&
062000	11.01	7.25	0.727	0.4	3.0	0.33	333	7.4	N/A	15.0&
063000	11.00	7.25	0.727	0.4	3.0	0.33	330	7.4	N/A	15.0&
064000	11.01	7.25	0.727	0.4	2.6	0.28	331	7.4	N/A	15.0&
065000	11.01	7.25	0.727	0.4	2.8	0.30	332	7.4	N/A	15.0&
070000	11.01	7.25	0.727	0.4	2.6	0.28	333	7.4	N/A	15.0&

TABLE B-14
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
071000	11.00	7.25	0.728	0.4	2.6	0.28	334	7.4	N/A	15.0&
072000	11.01	7.25	0.729	0.4	2.4	0.26	334	7.4	N/A	14.9&
073000	11.00	7.25	0.729	0.4	2.6	0.28	335	7.4	N/A	15.0&
074000	11.01	7.25	0.729	0.4	2.6	0.28	336	7.4	N/A	15.0&
075000	11.01	7.25	0.728	0.4	2.4	0.26	337	7.4	N/A	15.0&
080000	11.01	7.25	0.728	0.4	2.4	0.26	337	7.4	N/A	14.9&
081000	11.01	7.25	0.729	0.4	2.4	0.26	338	7.4	N/A	15.0&
082000	11.01	7.25	0.729	0.4	2.4	0.26	338	7.4	N/A	15.0&
083000	11.00	7.25	0.729	0.4	2.6	0.28	339	7.4	N/A	15.0&
084000	11.01	7.25	0.729	0.4	2.4	0.26	340	7.4	N/A	15.0&
085000	11.00	7.25	0.730	0.4	2.2	0.23	340	7.4	N/A	15.0&
090000	11.01	7.25	0.730	0.4	2.4	0.26	341	7.4	N/A	14.9&
091000	11.00	7.26	0.729	0.4	2.4	0.26	341	7.4	N/A	15.0&
092000	11.01	7.26	0.729	0.4	2.2	0.23	342	7.4	N/A	15.0&
093000	11.00	7.26	0.729	0.4	2.2	0.23	343	7.4	N/A	15.0&
094000	11.00	7.26	0.729	0.4	2.2	0.23	343	7.4	N/A	15.0&
095000	11.01	7.26	0.730	0.4	1.9	0.21	343	7.4	N/A	15.0&
100000	11.00	7.26	0.730	0.4	1.9	0.21	344	7.4	N/A	15.0&
101000	11.01	7.26	0.730	0.4	1.9	0.21	344	7.4	N/A	14.9&
102000	11.01	7.26	0.730	0.4	1.9	0.21	344	7.4	N/A	15.0&
103000	11.00	7.26	0.730	0.4	1.9	0.21	344	7.4	N/A	15.0&
104000	11.01	7.26	0.730	0.4	1.9	0.21	345	7.4	N/A	15.0&
105000	11.01	7.26	0.731	0.4	1.7	0.19	345	7.4	N/A	15.0&
110000	11.01	7.26	0.731	0.4	1.7	0.19	345	7.4	N/A	15.0&
111000	11.01	7.26	0.730	0.4	1.7	0.19	345	7.4	N/A	15.0&
112000	11.01	7.26	0.731	0.4	1.7	0.19	346	7.4	N/A	15.0&
113000	11.01	7.26	0.732	0.4	1.7	0.19	346	7.4	N/A	15.1&
114000	11.00	7.26	0.731	0.4	1.5	0.16	346	7.4	N/A	15.1&
115000	11.00	7.26	0.730	0.4	1.5	0.16	346	7.4	N/A	15.0&

Recovery finished at 101795 115407

TABLE B-15
WATER QUALITY IN WELL 2002
LOCATED IN THE SOUTH PLUME AREA, 10/20/95 THROUGH 10/24/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 2002
Setup Date (MMDDYY): 102095
Setup Time (HHMMSS): 120957
Starting Date (MMDDYY): 102095
Starting Time (HHMMSS): 121500
Stopping Date (MMDDYY): 102395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 020000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat : 745.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Feet, Level
Turbidity: Ratio, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 102095										
121500	10.86	7.51	0.632	0.3	2.6	0.28	148	0.96	N/A	16.0&
141500	10.81	7.53	0.637	0.3	0.8	0.09	119	0.97	N/A	15.8&
161500	10.82	7.54	0.640	0.3	0.6	0.07	107	0.97	N/A	15.7&
181500	10.81	7.55	0.643	0.3	0.6	0.07	99	0.97	N/A	15.7&
201500	10.79	7.56	0.646	0.3	0.6	0.07	91	0.98	N/A	15.7&
221500	10.81	7.57	0.649	0.3	0.6	0.07	84	0.98	N/A	15.6&
Date (MMDDYY): 102195										
001500	10.81	7.58	0.651	0.3	0.6	0.07	78	0.98	N/A	15.6&
021500	10.81	7.58	0.654	0.3	0.6	0.07	72	0.98	N/A	15.5&
041500	10.79	7.57	0.657	0.3	0.8	0.09	65	0.96	N/A	15.5&
061500	10.82	7.58	0.658	0.3	0.6	0.07	57	0.97	N/A	15.5&
081500	10.81	7.59	0.662	0.3	0.6	0.07	48	0.97	N/A	15.5&
101500	10.79	7.59	0.666	0.3	0.6	0.07	39	0.97	N/A	15.5&
121500	10.82	7.59	0.670	0.3	0.6	0.07	29	0.97	N/A	15.5&
141500	10.81	7.60	0.675	0.3	0.6	0.07	23	0.98	N/A	15.5&
161500	10.82	7.60	0.681	0.4	0.6	0.07	14	0.97	N/A	15.4&
181500	10.81	7.60	0.686	0.4	0.6	0.07	-40	0.97	N/A	15.4&
201500	10.81	7.59	0.693	0.4	0.6	0.07	-35	0.98	N/A	15.4&
221500	10.81	7.60	0.700	0.4	0.6	0.07	-42	0.98	N/A	15.4&
Date (MMDDYY): 102295										
001500	10.82	7.60	0.706	0.4	0.6	0.07	-53	0.98	N/A	15.3&

TABLE B-15
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
021500	10.79	7.60	0.713	0.4	0.6	0.07	-69	0.99	N/A	15.3&
041500	10.82	7.60	0.719	0.4	0.6	0.07	-78	0.99	N/A	15.3&
061500	10.81	7.61	0.725	0.4	0.6	0.07	-90	1.01	N/A	15.3&
081500	10.82	7.60	0.730	0.4	0.6	0.07	-103	1.01	N/A	15.2&
101500	10.79	7.61	0.737	0.4	0.6	0.07	-183	1.01	N/A	15.3&
121500	10.82	7.60	0.742	0.4	0.6	0.07	-156	1.01	N/A	15.3&
141500	10.82	7.61	0.747	0.4	0.6	0.07	-176	1.01	N/A	15.4&
161500	10.82	7.60	0.753	0.4	0.6	0.07	-182	1.01	N/A	15.4&
181500	10.81	7.60	0.758	0.4	0.6	0.07	-195	1.01	N/A	15.4&
201500	10.81	7.61	0.764	0.4	0.6	0.07	-210	1.01	N/A	15.3&
221500	10.81	7.61	0.769	0.4	0.6	0.07	-224	1.02	N/A	15.2&
Date (MMDDYY): 102395										
001500	10.79	7.60	0.775	0.4	0.8	0.09	-234	0.99	N/A	15.2&
021500	10.82	7.61	0.780	0.4	0.6	0.07	-243	1.02	N/A	15.2&
041500	10.82	7.61	0.786	0.4	0.6	0.07	-250	1.02	N/A	15.2&
061500	10.82	7.61	0.791	0.4	0.6	0.07	-256	1.02	N/A	15.2&
081500	10.81	7.61	0.797	0.4	0.6	0.07	-261	1.02	N/A	15.1&
101500	10.81	7.61	0.802	0.4	0.6	0.07	-264	1.02	N/A	15.3&
121500	10.79	7.62	0.807	0.4	0.6	0.07	-268	1.02	N/A	15.2&
141500	10.81	7.61	0.811	0.4	0.6	0.07	-270	1.02	N/A	15.3&
161500	10.81	7.61	0.815	0.4	0.6	0.07	-273	1.01	N/A	15.3&
181500	10.82	7.61	0.817	0.4	0.6	0.07	-274	1.01	N/A	15.2&
201500	10.81	7.62	0.820	0.4	0.6	0.07	-275	0.99	N/A	15.2&
221500	10.81	7.62	0.823	0.4	0.6	0.07	-275	0.99	N/A	15.2&

Recovery finished at 102495 131112

TABLE B-16
WATER QUALITY IN WELL 3928
LOCATED IN THE SOUTH PLUME AREA, 10/20/95 THROUGH 10/24/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 3928
Setup Date (MMDDYY): 102095
Setup Time (HHMMSS): 123702
Starting Date (MMDDYY): 102095
Starting Time (HHMMSS): 124000
Stopping Date (MMDDYY): 102395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 020000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat : 753.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Meters, Depth-100m
Turbidity: Ratio, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 102095										
124000	10.59	7.52	0.599	0.3	6.9	0.76	135	11.0	N/A	16.1&
144000	10.56	7.69	0.608	0.3	1.5	0.17	85	11.0	N/A	16.0&
164000	10.54	7.55	0.616	0.3	1.5	0.17	91	11.0	N/A	16.0&
184000	10.54	7.54	0.620	0.3	1.3	0.15	89	11.0	N/A	16.0&
204000	10.54	7.54	0.621	0.3	1.2	0.13	86	11.0	N/A	15.9&
224000	10.54	7.53	0.621	0.3	1.2	0.13	85	11.0	N/A	15.9&
Date (MMDDYY): 102195										
004000	10.54	7.53	0.620	0.3	1.3	0.15	84	11.0	N/A	15.8&
024000	10.54	7.53	0.620	0.3	1.2	0.13	82	11.0	N/A	15.7&
044000	10.54	7.53	0.620	0.3	1.3	0.15	76	11.0	N/A	15.7&
064000	10.54	7.54	0.620	0.3	1.2	0.13	10	11.0	N/A	15.7&
084000	10.54	7.54	0.620	0.3	1.2	0.13	-14	11.0	N/A	15.7&
104000	10.54	7.54	0.620	0.3	1.2	0.13	54	11.0	N/A	15.7&
124000	10.54	7.54	0.620	0.3	1.2	0.13	61	11.0	N/A	15.6&
144000	10.54	7.54	0.621	0.3	1.2	0.13	3	11.0	N/A	15.7&
164000	10.54	7.54	0.620	0.3	1.2	0.13	-136	11.0	N/A	15.6&
184000	10.54	7.54	0.620	0.3	1.2	0.13	-220	11.0	N/A	15.6&
204000	10.54	7.54	0.620	0.3	1.2	0.13	-292	11.0	N/A	15.6&
224000	10.54	7.55	0.621	0.3	1.2	0.13	-392	11.0	N/A	15.5&
Date (MMDDYY): 102295										
004000	10.54	7.55	0.621	0.3	1.2	0.13	-393	11.0	N/A	15.5&

TABLE B-16
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
024000	10.54	7.55	0.621	0.3	1.2	0.13	-324	11.1	N/A	15.5&
044000	10.54	7.55	0.621	0.3	1.2	0.13	-369	11.1	N/A	15.4&
064000	10.54	7.55	0.621	0.3	1.2	0.13	-399	11.1	N/A	15.4&
084000	10.54	7.56	0.621	0.3	1.2	0.13	-448	11.1	N/A	15.4&
104000	10.54	7.56	0.621	0.3	1.2	0.13	-437	11.1	N/A	15.5&
124000	10.54	7.56	0.621	0.3	1.2	0.13	-439	11.1	N/A	15.5&
144000	10.54	7.56	0.620	0.3	1.2	0.13	-423	11.1	N/A	15.5&
164000	10.54	7.56	0.620	0.3	1.2	0.13	-324	11.1	N/A	15.5&
184000	10.54	7.56	0.621	0.3	1.2	0.13	-368	11.1	N/A	15.5&
204000	10.54	7.56	0.620	0.3	1.2	0.13	-378	11.1	N/A	15.4&
224000	10.54	7.56	0.620	0.3	1.2	0.13	-387	11.1	N/A	15.3&
Date (MMDDYY): 102395										
004000	10.54	7.56	0.620	0.3	1.2	0.13	-389	11.1	N/A	15.3&
024000	10.54	7.56	0.620	0.3	1.2	0.13	-390	11.1	N/A	15.3&
044000	10.54	7.56	0.621	0.3	1.2	0.13	-416	11.1	N/A	15.3&
064000	10.54	7.56	0.620	0.3	1.2	0.13	-399	11.1	N/A	15.3&
084000	10.54	7.56	0.620	0.3	1.2	0.13	-434	11.1	N/A	15.3&
104000	10.54	7.57	0.620	0.3	1.2	0.13	-419	11.1	N/A	15.3&
124000	10.54	7.57	0.620	0.3	1.2	0.13	-403	11.1	N/A	15.3&
144000	10.54	7.57	0.620	0.3	1.2	0.13	-399	11.1	N/A	15.4&
164000	10.54	7.57	0.620	0.3	1.2	0.13	-383	11.1	N/A	15.4&
184000	10.54	7.57	0.620	0.3	1.2	0.13	-379	11.1	N/A	15.4&
204000	10.54	7.57	0.620	0.3	1.2	0.13	-391	11.1	N/A	15.3&
224000	10.54	7.57	0.620	0.3	1.2	0.13	-391	11.1	N/A	15.3&

Recovery finished at 102495 133227

TABLE B-17
WATER QUALITY IN WELL 2899
LOCATED IN THE SOUTH PLUME AREA, 10/20/95 THROUGH 10/24/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 2899
Setup Date (MMDDYY): 102095
Setup Time (HHMMSS): 122152
Starting Date (MMDDYY): 102095
Starting Time (HHMMSS): 122500
Stopping Date (MMDDYY): 102395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 020000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, TDS, Temperature compensated, A->Comp 1, A->Method 1
% Sat : 750.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Feet, Level
Turbidity: Neph only, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 102095										
122500	11.49	7.35	0.971	0.621	17.8	1.91	332	0.71	N/A	16.0&
142500	11.41	7.35	0.983	0.629	10.3	1.11	285	0.72	N/A	15.8&
162500	11.40	7.35	0.992	0.635	10.3	1.11	279	0.72	N/A	15.8&
182500	11.41	7.35	1.025	0.656	10.3	1.11	276	0.72	N/A	15.8&
202500	11.40	7.35	1.043	0.668	10.2	1.10	271	0.72	N/A	15.7&
222500	11.40	7.36	1.042	0.667	10.3	1.11	267	0.72	N/A	15.7&
Date (MMDDYY): 102195										
002500	11.40	7.36	1.040	0.666	10.3	1.11	263	0.72	N/A	15.7&
022500	11.40	7.36	1.040	0.666	10.2	1.10	259	0.72	N/A	15.7&
042500	11.40	7.36	1.039	0.665	10.2	1.10	255	0.72	N/A	15.7&
062500	11.40	7.36	1.040	0.666	10.2	1.10	251	0.72	N/A	15.5&
082500	11.40	7.36	1.041	0.666	10.2	1.10	248	0.72	N/A	15.6&
102500	11.40	7.36	1.041	0.666	10.2	1.10	245	0.72	N/A	15.6&
122500	11.40	7.36	1.041	0.666	10.2	1.10	242	0.72	N/A	15.6&
142500	11.40	7.36	1.040	0.666	10.2	1.10	238	0.72	N/A	15.5&
162500	11.40	7.36	1.039	0.665	10.2	1.10	235	0.72	N/A	15.5&
182500	11.40	7.36	1.039	0.665	10.2	1.10	230	0.73	N/A	15.5&
202500	11.40	7.36	1.039	0.665	10.2	1.10	225	0.73	N/A	15.5&
222500	11.40	7.36	1.039	0.665	10.0	1.08	221	0.73	N/A	15.5&
Date (MMDDYY): 102295										
002500	11.38	7.36	1.040	0.665	10.1	1.08	216	0.74	N/A	15.4&

TABLE B-17
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
022500	11.40	7.37	1.040	0.666	10.0	1.08	210	0.74	N/A	15.4&
042500	11.38	7.37	1.040	0.665	10.1	1.08	205	0.74	N/A	15.4&
062500	11.38	7.37	1.040	0.665	10.1	1.08	199	0.75	N/A	15.4&
082500	11.38	7.37	1.040	0.665	10.1	1.08	193	0.75	N/A	15.4&
102500	11.39	7.37	1.039	0.665	10.0	1.08	186	0.76	N/A	15.4&
122500	11.40	7.37	1.039	0.665	9.9	1.06	179	0.76	N/A	15.3&
142500	11.40	7.37	1.040	0.666	10.0	1.08	172	0.76	N/A	15.5&
162500	11.40	7.37	1.041	0.666	10.0	1.08	165	0.75	N/A	15.5&
182500	11.38	7.37	1.042	0.667	10.1	1.08	157	0.76	N/A	15.5&
202500	11.40	7.37	1.042	0.667	9.9	1.06	149	0.76	N/A	15.4&
222500	11.40	7.38	1.041	0.666	9.9	1.06	141	0.76	N/A	15.4&
Date (MMDDYY): 102395										
002500	11.38	7.38	1.041	0.666	9.6	1.03	133	0.76	N/A	15.4&
022500	11.40	7.38	1.041	0.666	9.9	1.06	124	0.76	N/A	15.4&
042500	11.40	7.38	1.040	0.666	9.9	1.06	115	0.76	N/A	15.3&
062500	11.40	7.38	1.040	0.666	9.9	1.06	106	0.76	N/A	15.3&
082500	11.40	7.38	1.038	0.665	9.9	1.06	97	0.76	N/A	15.3&
102500	11.40	7.38	1.038	0.665	9.9	1.06	88	0.77	N/A	15.3&
122500	11.40	7.38	1.038	0.664	9.9	1.06	73	0.77	N/A	15.3&
142500	11.40	7.38	1.037	0.663	9.9	1.06	66	0.76	N/A	15.3&
162500	11.38	7.38	1.036	0.663	9.9	1.06	57	0.76	N/A	15.4&
182500	11.40	7.38	1.037	0.663	9.7	1.05	47	0.75	N/A	15.4&
202500	11.40	7.38	1.037	0.663	9.7	1.05	37	0.75	N/A	15.3&
222500	11.40	7.38	1.038	0.664	9.7	1.05	27	0.74	N/A	15.3&

Recovery finished at 102495 133732

TABLE B-18
WATER QUALITY IN WELL 2095
LOCATED IN THE SOUTH PLUME AREA, 10/20/95 THROUGH 10/24/95
MEASUREMENTS RECORDED EVERY 10 MINUTES

Log File Name: 2095
Setup Date (MMDDYY): 102095
Setup Time (HHMMSS): 124601
Starting Date (MMDDYY): 102095
Starting Time (HHMMSS): 125000
Stopping Date (MMDDYY): 102395
Stopping Time (HHMMSS): 235959
Interval (HHMMSS): 020000
Warmup: Disable

==> Setup Variables and Calibration <==

Temperature: Centigrade
Specific Conductance/Resistivity: Specific Conductance, mS/cm, Salt, Auto range, Salinity, Temperature compensated, A->Comp 1, A->Method 1
% Sat : 745.0
DO: DO, LoFlow, Salinity compensated, Oxygen-26.7K
Depth/Level: Meters, Depth-100m
Turbidity: Ratio, Auto range
Buzzer: Disable
Stirrer: Enable

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
Date (MMDDYY): 102095										
125000	10.33	7.22	0.805	0.4	55.9	6.12	376	3.1	N/A	15.9&
145000	10.10	7.25	0.836	0.4	40.0	4.40	395	3.1	N/A	15.9&
165000	10.10	7.26	0.833	0.4	38.0	4.18	358	3.1	N/A	15.8&
185000	10.07	7.26	0.832	0.4	36.7	4.04	355	3.1	N/A	15.8&
205000	10.07	7.27	0.830	0.4	35.1	3.87	353	3.1	N/A	15.7&
225000	10.05	7.27	0.831	0.4	34.2	3.77	352	3.1	N/A	15.7&
Date (MMDDYY): 102195										
005000	10.05	7.27	0.830	0.4	32.7	3.60	353	3.1	N/A	15.6&
025000	10.05	7.27	0.828	0.4	31.1	3.42	353	3.1	N/A	15.6&
045000	10.05	7.28	0.828	0.4	29.5	3.25	353	3.1	N/A	15.6&
065000	10.05	7.28	0.828	0.4	28.2	3.10	354	3.1	N/A	15.6&
085000	10.05	7.28	0.829	0.4	27.3	3.00	355	3.1	N/A	15.6&
105000	10.05	7.28	0.828	0.4	27.0	2.98	356	3.1	N/A	15.6&
125000	10.05	7.28	0.828	0.4	26.8	2.95	357	3.1	N/A	15.5&
145000	10.05	7.28	0.828	0.4	26.6	2.93	359	3.1	N/A	15.5&
165000	10.05	7.28	0.829	0.4	26.8	2.95	360	3.1	N/A	15.5&
185000	10.05	7.28	0.830	0.4	27.3	3.00	363	3.1	N/A	15.5&
205000	10.05	7.28	0.829	0.4	27.7	3.05	366	3.1	N/A	15.5&
225000	10.07	7.28	0.828	0.4	28.1	3.10	369	3.1	N/A	15.4&
Date (MMDDYY): 102295										
005000	10.05	7.28	0.830	0.4	28.4	3.13	372	3.1	N/A	15.4&

TABLE B-18
(Continued)

Time HHMMSS	Temp deg C	pH units	SpCond mS/cm	Salin ppt	DO % Sat	DO mg/l	Redox mV	Depth meters	Turb NTU	Batt volts
025000	10.05	7.29	0.831	0.4	28.6	3.15	376	3.1	N/A	15.4&
045000	10.07	7.29	0.830	0.4	29.0	3.20	382	3.1	N/A	15.3&
065000	10.05	7.29	0.831	0.4	29.5	3.25	388	3.2	N/A	15.3&
085000	10.05	7.29	0.832	0.4	29.7	3.28	394	3.2	N/A	15.3&
105000	10.07	7.29	0.831	0.4	29.7	3.27	400	3.2	N/A	15.3&
125000	10.05	7.29	0.833	0.4	29.7	3.28	404	3.2	N/A	15.3&
145000	10.05	7.29	0.833	0.4	29.7	3.28	407	3.2	N/A	15.4&
165000	10.05	7.29	0.833	0.4	29.7	3.28	409	3.2	N/A	15.4&
185000	10.05	7.29	0.835	0.4	29.7	3.28	411	3.2	N/A	15.4&
205000	10.05	7.29	0.836	0.4	29.5	3.25	412	3.2	N/A	15.4&
225000	10.07	7.29	0.836	0.4	29.3	3.22	414	3.2	N/A	15.3&
Date (MMDDYY): 102395										
005000	10.07	7.29	0.836	0.4	29.3	3.22	415	3.2	N/A	15.3&
025000	10.07	7.30	0.837	0.4	29.5	3.25	416	3.2	N/A	15.3&
045000	10.07	7.30	0.838	0.4	29.9	3.30	417	3.2	N/A	15.3&
065000	10.07	7.29	0.839	0.4	30.2	3.32	418	3.2	N/A	15.2&
085000	10.07	7.30	0.840	0.4	29.9	3.30	418	3.2	N/A	15.2&
105000	10.07	7.30	0.841	0.4	29.7	3.27	419	3.2	N/A	15.2&
125000	10.07	7.30	0.842	0.4	29.3	3.22	419	3.2	N/A	15.3&
145000	10.07	7.30	0.842	0.4	29.0	3.20	419	3.2	N/A	15.3&
165000	10.07	7.30	0.842	0.4	28.8	3.17	419	3.2	N/A	15.3&
185000	10.05	7.30	0.843	0.4	29.1	3.20	419	3.2	N/A	15.2&
205000	10.07	7.30	0.844	0.4	29.3	3.22	420	3.1	N/A	15.3&
225000	10.08	7.31	0.844	0.4	29.2	3.22	420	3.1	N/A	15.2&

Recovery finished at 102495 130137

Appendix C

APPENDIX C

FLOW, LINE PRESSURE, AND BAROMETRIC PRESSURE DATA

TABLE OF CONTENTS

Table C-1 Flow, Barometric Pressure and Line Pressure Measurements for the Step Test, Injection Rate of 100 gpm

Table C-2 Flow, Barometric Pressure and Line Pressure Measurements for the Step Test, Injection Rate of 300 gpm

Table C-3 Flow, Barometric Pressure and Line Pressure Measurements for the Step Test, Injection Rate of 450 gpm

Table C-4 Flow, Barometric Pressure and Line Pressure Measurements for the 72-Hour Constant Rate Injection Test, Injection Rate of 300 gpm

TABLE C-1

FLOW, BAROMETRIC PRESSURE AND LINE PRESSURE MEASUREMENTS FOR THE STEP TEST, INJECTION RATE OF 100 gpm

Date: 10/12/95
Start Time: 12:15 p.m.

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
12:15	0	0	29.632	
12:16	1	104	29.631	<1-5
12:17	2	95	29.632	<1-5
12:18	3	96		<1-5
12:19	4	96		<1-5
12:20	5	100		<1-5
12:21	6	99		<1-5
12:22	7	100		(5 threads exposed = 100 gpm)
12:23	8	100		<5
12:24	9	98	29.630	<5
12:25	10	99	29.630	<5
12:35	20	98	29.628	<5
12:45	30	98	29.623	<5
12:55	40	97	29.610	<5
13:05	50	97	29.597	<5
13:15	60	97	29.581	<5
13:21	66	124		25
13:22	67	125		25
13:23	68	125	29.566	25
13:24	69	125	29.567	25
13:25	70	Closing valve		25-28

TABLE C-2

FLOW, BAROMETRIC PRESSURE AND LINE PRESSURE MEASUREMENTS FOR THE STEP TEST, INJECTION RATE OF 300 gpm

Date: 10/12/95
Start Time: 1:40 p.m.

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
13:40	85	47		0
13:41	86	230		0
13:42	87	296	29.564	5-7
13:43	88	296	29.564	5-7
13:44	89	296	29.564	5-7
13:45	90	297	29.563	5-7
13:46	91	296	29.562	5-7
13:47	92	296	29.562	5-7
13:48	93	296	29.562	5-7
13:49	94	296	29.562	5-7
13:50	95	295	29.562	5-7
14:00	105	295	29.562	7
14:10	115	295	29.547	7
14:20	125	295	29.535	7
14:30	135	297	29.526	7
14:40	145	298	29.520	7

TABLE C-3

FLOW, BAROMETRIC PRESSURE AND LINE PRESSURE MEASUREMENTS FOR THE STEP TEST, INJECTION RATE OF 450 gpm

Date: 10/12/95
Start Time: 2:45 p.m.

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
14:45	150	415		10
14:46	151	435		15
14:47	152	445		15
14:48	153	447	29.515	15
14:49	154	446	29.514	15
14:50	155	446	29.514	15
14:51	156	446	29.512	16
14:52	157	446	29.510	16
14:53	158	445	29.510	16
14:54	159	446	29.511	16
14:55	160	445	29.510	16
15:05	170	445	29.504	15-16
15:15	180	445	29.497	15
15:25	190	446	29.495	15
15:26	191	125		15
15:35	200	441	29.497	15
15:45	210	446	29.500	15
15:48	213	Stopped test		

TABLE C-4

FLOW, BAROMETRIC PRESSURE AND LINE PRESSURE MEASUREMENTS FOR THE 72 HOUR CONSTANT RATE INJECTION TEST, INJECTION RATE OF 300 (gpm)

Date: 10/13/95
Start Time: 11:10

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
11:10	0	0	29.476	0
11:11	1	289		7
11:12	2	301	29.473	6-7
11:13	3	303	29.474	6-7
11:14	4	302	29.472	6
11:15	5	301	29.472	6
11:16	6	298	29.471	6
11:17	7	299	29.471	6
11:18	8	302	29.472	6
11:19	9	306	29.473	6
11:20	10	306	29.471	6
11:30	20	298	29.469	6
11:40	30	303	29.470	6
11:50	40	302	29.461	6
12:00	50	302	29.454	7-8
12:10	60	302	29.453	8
12:20	70	302	29.450	7-8
12:30	80	301	29.446	8
12:40	90	301	29.445	8
12:50	100	307	29.437	8
13:20	130	309	29.423	8
13:50	160	308	29.398	8
14:20	190	309	29.356	9
14:50	220	306	29.358	9
15:20	250	301	29.352	8
15:50	280	304	29.340	9
16:20	310	304	29.341	9
16:50	340	304	29.338	9
17:20	370	302	29.335	9
17:50	400	296	29.333	8
18:20	430	294	29.333	9

TABLE C-4
(Continued)

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
18:50	460	293	29.328	9
19:20	490	293	29.323	9
19:50	520	292	29.317	9
20:20	550	290	29.307	8
20:50	580	289	29.311	8
21:20	610	287	29.303	8
21:50	640	301	29.307	8
22:20	670	301	29.303	8
22:50	700	301	29.294	9
23:20	730	301	29.289	9
23:50	760	302	29.283	9
00:20	790	301	29.275	9
00:50	820	301	29.261	9
01:20	850	300	29.251	9
01:50	880	300	29.244	9
02:20	910	299	29.230	9
02:50	940	299	29.220	9
03:20	970	299	29.213	9
03:50	1000	298	29.197	9
04:20	1030	298	29.190	9
04:50	1060	299	29.178	9
05:20	1090	298	29.176	9
05:50	1120	301	29.167	10
06:20	1150	300	29.213	10
06:50	1180	299	29.233	10
07:20	1210	300	29.230	10
07:50	1240	300	29.220	10
08:20	1270	299	29.241	10
08:50	1300	299	29.243	10
09:20	1330	301	29.257	10
09:50	1360	299	29.258	10
10:20	1390	300	29.262	10
10:50	1420	299	29.281	10
11:20	1450	298	29.268	10
11:50	1480	297	29.258	10

TABLE C-4
(Continued)

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
12:20	1510	299	29.259	10
12:50	1540	305	29.254	13
13:20	1570	304	29.250	13
13:50	1600	304	29.245	13
14:20	1630	304	29.247	13
14:50	1660	304	29.247	12
15:20	1690	305	29.234	12
15:50	1720	306	29.236	13
16:20	1750	304	29.234	14
16:50	1780	304	29.235	13
17:20	1810	305	29.242	14
17:50	1840	303	29.253	14
18:20	1870	305	29.273	14
18:50	1900	302	29.287	14
19:20	1930	304	29.299	14
19:50	1960	304	29.316	14
20:20	1990	301	29.323	14
20:50	2020	303	29.327	14
21:20	2050	302	29.330	14
21:50	2080	300	29.317	14
22:20	2110	299	29.314	14
22:50	2140	299	29.311	13
23:20	2170	301	29.306	13
23:50	2200	299	29.298	13
24:20	2230	299	29.300	13
24:50	2260	299	29.297	13
1:20	2290	299	29.298	13
1:50	2320	300	29.297	13
2:20	2350	298	29.296	14
2:50	2380	299	29.296	14
3:20	2410	299	29.300	13
3:50	2440	215	29.298	0
4:20	2470	197	29.296	0
4:50	2500	210	29.301	0
5:20	2530	215	29.308	0

TABLE C-4
(Continued)

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
5:50	2560	299	29.313	14
6:20	2590	299	29.320	15
6:50	2620	298	29.324	15
7:20	2650	300	29.327	14
7:50	2680	298	29.322	15
8:20	2710	298	29.328	15
8:50	2740	300	29.333	15
9:20	2770	300	29.340	15
9:50	2800	300	29.348	14
10:20	2830	298	29.349	15
10:50	2860	299	29.350	15
11:20	2890	287	29.355	13
11:50	2920	221	29.351	0
12:20	2950	256	29.346	4
12:50	2980	257	29.342	5
13:20	3010	257	29.340	5
13:50	3040	257	29.333	6
14:20	3070	256	29.319	6
14:50	3100	306	29.315	16
15:20	3130	295	29.312	15
15:50	3160	309	29.315	19
16:20	3190	296	29.317	14
16:50	3220	298	29.315	15
17:20	3250	310	29.319	17
17:50	3280	294	29.318	15
18:20	3310	295	29.321	15
18:50	3340	308	29.325	18
19:20	3370	300	29.331	17
19:50	3400	286	29.346	14
20:20	3430	287	29.358	15
20:50	3460	298	29.370	15
21:20	3490	286	29.376	13
21:50	3520	285	29.384	15
22:20	3550	284	29.382	14
22:50	3580	293	29.390	16

TABLE C-4
(Continued)

Time (military)	Elapsed Time (minutes)	Flow (gpm)	Barometric Pressure (in. of Hg)	Line Pressure (psi)
23:20	3610	298	29.389	16
23:50	3640	279	29.398	14
24:20	3670	280	29.399	14
24:50	3700	260	29.398	10
1:20	3730	260	29.399	10
1:50	3760	287	29.407	15
2:20	3790	287	29.418	15
2:50	3820	287	29.426	15
3:20	3850	287	29.438	15
3:50	3880	287	29.436	15
4:20	3910	289	29.448	16
4:50	3940	290	29.450	16
5:20	3970	290	29.461	16
5:50	4000	290	29.468	16
6:20	4030	288	29.486	16
6:50	4060	289	29.498	16
7:20	4090	286	29.514	16
7:50	4120	286	29.521	16
8:20	4150	285	29.539	16
8:50	4180	285	29.550	16
9:20	4210	285	29.566	15
9:50	4240	286	29.568	15
10:20	4270	284	29.579	15
10:50	4300	284	29.582	16
11:20	4330	284	29.585	15
11:50	4360	281	29.587	14.9
12:20	4390	280	29.592	14.9
12:50	4420	280	29.604	15
13:20	4450	281	29.598	15
13:50	4480	282	29.595	15
14:20	4510	282	29.588	15.2
14:50	4540	282	29.581	15
15:20	4570	281	29.580	15
15:50	4600	End of CRT		

72396

Appendix D

-7396

APPENDIX D

REGIONAL WATER LEVEL TREND DATA

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TABLE OF CONTENTS

Table D-1 Water Levels in Well 2387

Table D-2 Water Levels in Well 2049

Table D-3 Water Levels in Well 2390

Table D-4 Water Levels in Well 2434

Table D-5 Water Levels in Well 2398

Figure D-1 Water Levels in Well 2387 vs Time

Figure D-2 Water Levels in Well 2049 vs Time

Figure D-3 Water Levels in Well 2390 vs Time

Figure D-4 Water Levels in Well 2434 vs Time

Figure D-5 Water Levels in Well 2398 vs Time

TABLE D-1
WATER LEVELS IN WELL 2387

Date	Time	Water Level (ft amsl)
9/95	Noon	519.250
	Midnight	519.262
09/20/95	Noon	519.230
	Midnight	519.211
09/21/95	Noon	519.205
	Midnight	519.199
09/22/95	Noon	519.167
	Midnight	519.161
09/23/95	Noon	519.142
	Midnight	519.154
09/24/95	Noon	519.142
	Midnight	519.148
09/25/95	Noon	519.135
	Midnight	519.129
09/26/95	Noon	519.104
	Midnight	519.097
09/27/95	Noon	519.059
	Midnight	519.053
09/28/95	Noon	519.021
	Midnight	519.028
09/29/95	Noon	519.002
	Midnight	519.009
09/30/95	Noon	518.983
	Midnight	518.990
10/01/95	Noon	518.971
	Midnight	518.958
10/02/95	Noon	518.926
	Midnight	518.932
10/03/95	Noon	518.932
	Midnight	518.907
10/04/95	Noon	518.882
	Midnight	518.894
10/06/95	Noon	518.971
	Midnight	518.901

TABLE D-1
(Continued)

Date	Time	Water Level (ft amsl)
10/07/95	Noon	518.977
	Midnight	518.977
10/08/95	Noon	518.958
	Midnight	518.952
10/09/95	Noon	518.952
	Midnight	518.983
10/10/95	Noon	518.958
	Midnight	518.945
10/11/95	Noon	518.907
	Midnight	518.894
10/12/95	Noon	518.863
	Midnight	518.863
10/13/95	Noon	518.901
	Midnight	518.888
10/14/95	Noon	519.053
	Midnight	519.250
10/15/95	Noon	519.294
	Midnight	519.294
10/16/95	Noon	519.250
	Midnight	519.262
10/17/95	Noon	519.211
	Midnight	518.894
10/18/95	Noon	518.825
	Midnight	518.818
10/19/95	Noon	518.780
	Midnight	518.774
10/20/95	Noon	518.749

TABLE D-2
WATER LEVELS IN WELL 2049

Date	Time	Water Level (ft amsl)
09/19/95	Midnight	519.401
09/20/95	Noon	519.370
	Midnight	519.357
09/21/95	Noon	519.344
	Midnight	519.338
09/22/95	Noon	519.313
	Midnight	519.306
09/23/95	Noon	519.281
	Midnight	519.281
09/24/95	Noon	519.268
	Midnight	519.275
09/25/95	Noon	519.262
	Midnight	519.256
09/26/95	Noon	519.231
	Midnight	519.224
09/27/95	Noon	519.193
	Midnight	519.180
09/28/95	Noon	519.155
	Midnight	519.149
09/29/95	Noon	519.123
	Midnight	519.123
09/30/95	Noon	519.098
	Midnight	519.098
10/01/95	Noon	519.079
	Midnight	519.066
10/02/95	Noon	519.041
	Midnight	519.035
10/03/95	Noon	519.029
	Midnight	519.010
10/04/95	Noon	518.991
	Midnight	518.991
10/06/95	Noon	519.035
	Midnight	519.054

TABLE D-2
(Continued)

Date	Time	Water Level (ft amsl)
10/07/95	Noon	519.136
	Midnight	519.161
10/08/95	Noon	519.155
	Midnight	519.149
10/09/95	Noon	519.142
	Midnight	519.167
10/10/95	Noon	519.130
	Midnight	519.104
10/11/95	Noon	519.060
	Midnight	519.035
10/12/95	Noon	518.991
	Midnight	518.984
10/13/95	Noon	518.953
	Midnight	518.972
10/14/95	Noon	519.098
	Midnight	519.136
10/15/95	Noon	519.136
	Midnight	519.136
10/16/95	Noon	519.117
	Midnight	519.123
10/17/95	Noon	519.073
	Midnight	518.959
10/18/95	Noon	518.896
	Midnight	518.883
10/19/95	Noon	518.846
	Midnight	518.833
10/20/95	Noon	518.801
	Midnight	518.814

TABLE D-3
WATER LEVELS IN WELL 2390

Date	Time	Water Level (ft amsl)
09/19/95	Midnight	519.358
09/20/95	Noon	519.350
	Midnight	
09/21/95	Noon	
	Midnight	519.307
09/22/95	Noon	519.282
	Midnight	519.263
09/23/95	Noon	519.251
	Midnight	519.244
09/24/95	Noon	519.238
	Midnight	519.232
09/25/95	Noon	519.219
	Midnight	519.219
09/26/95	Noon	519.200
	Midnight	519.187
09/27/95	Noon	519.162
	Midnight	519.150
09/28/95	Noon	519.131
	Midnight	519.118
09/29/95	Noon	519.099
	Midnight	519.093
09/30/95	Noon	519.074
	Midnight	519.061
10/01/95	Noon	519.049
	Midnight	519.036
10/02/95	Noon	519.017
	Midnight	519.004
10/03/95	Noon	518.998
	Midnight	518.979
10/04/95	Noon	518.960
	Midnight	518.960
10/06/95	Noon	518.992
	Midnight	519.093

TABLE D-3
(Continued)

Date	Time	Water Level (ft amsl)
10/07/95	Noon	519.187
	Midnight	519.232
10/08/95	Noon	519.257
	Midnight	519.276
10/09/95	Noon	519.288
	Midnight	519.276
10/10/95	Noon	519.219
	Midnight	519.169
10/11/95	Noon	519.118
	Midnight	519.080
10/12/95	Noon	519.042
	Midnight	519.023
10/13/95	Noon	518.998
	Midnight	518.998
10/14/95	Noon	518.973
	Midnight	519.017
10/15/95	Noon	519.030
	Midnight	519.036
10/16/95	Noon	519.023
	Midnight	519.017
10/17/95	Noon	518.992
	Midnight	518.954
10/18/95	Noon	518.922
	Midnight	518.910
10/19/95	Noon	518.885
	Midnight	518.872
10/20/95	Noon	518.853
		518.853

TABLE D-4
WATER LEVELS IN WELL 2434

Date	Time	Water Level (ft amsl)
09/19/95	Noon	519.000
	Midnight	518.994
09/20/95	Noon	518.949
	Midnight	518.924
09/21/95	Noon	518.924
	Midnight	518.918
09/22/95	Noon	518.867
	Midnight	518.873
09/23/95	Noon	518.860
	Midnight	518.860
09/24/95	Noon	518.860
	Midnight	518.848
09/25/95	Noon	518.835
	Midnight	518.829
09/26/95	Noon	518.797
	Midnight	518.778
09/27/95	Noon	518.746
	Midnight	518.734
09/28/95	Noon	518.715
	Midnight	518.715
09/29/95	Noon	518.696
	Midnight	518.696
09/30/95	Noon	518.657
	Midnight	518.670
10/01/95	Noon	518.638
	Midnight	518.613
10/02/95	Noon	518.588
	Midnight	518.600
10/03/95	Noon	518.600
	Midnight	518.543
10/04/95	Noon	518.518
	Midnight	518.543
10/06/95	Noon	518.651
	Midnight	518.454

TABLE D-4
(Continued)

Date	Time	Water Level (ft amsl)
10/07/95	Noon	518.556
	Midnight	518.550
10/08/95	Noon	518.569
	Midnight	518.581
10/09/95	Noon	518.600
	Midnight	518.632
10/10/95	Noon	518.613
	Midnight	518.588
10/11/95	Noon	518.556
	Midnight	518.537
10/12/95	Noon	518.512
	Midnight	518.518
10/13/95	Noon	518.499
	Midnight	518.524
10/14/95	Noon	518.505
	Midnight	518.575
10/15/95	Noon	518.575
	Midnight	518.581
10/16/95	Noon	518.575
	Midnight	518.562
10/17/95	Noon	518.524
	Midnight	518.486
10/18/95	Noon	518.467
	Midnight	518.474
10/19/95	Noon	518.429
	Midnight	518.416
10/20/95	Noon	518.404

TABLE D-5
WATER LEVELS IN WELL 2398

Date	Time	Water Level (ft amsl)
09/19/95	Noon	518.720
	Midnight	518.676
09/20/95	Noon	518.619
	Midnight	518.593
09/21/95	Noon	518.631
	Midnight	518.555
09/22/95	Noon	518.530
	Midnight	518.530
09/23/95	Noon	518.574
	Midnight	518.568
09/24/95	Noon	518.574
	Midnight	518.543
09/25/95	Noon	518.517
	Midnight	518.505
09/26/95	Noon	518.511
	Midnight	518.435
09/27/95	Noon	518.448
	Midnight	518.384
09/28/95	Noon	518.435
	Midnight	518.403
09/29/95	Noon	518.416
	Midnight	518.384
09/30/95	Noon	518.397
	Midnight	518.353
10/01/95	Noon	518.346
	Midnight	518.289
10/02/95	Noon	518.308
	Midnight	518.315
10/03/95	Noon	518.308
	Midnight	518.213
10/04/95	Noon	518.226
	Midnight	518.289
10/06/95	Noon	518.372
	Midnight	518.112

TABLE D-5
(Continued)

Date	Time	Water Level (ft amsl)
10/07/95	Noon	518.201
	Midnight	518.156
10/08/95	Noon	518.163
	Midnight	518.156
10/09/95	Noon	518.226
	Midnight	518.213
10/10/95	Noon	518.245
	Midnight	518.182
10/11/95	Noon	518.201
	Midnight	518.144
10/12/95	Noon	518.175
	Midnight	518.150
10/13/95	Noon	518.201
	Midnight	518.169
10/14/95	Noon	518.220
	Midnight	518.232
10/15/95	Noon	518.188
	Midnight	518.194
10/16/95	Noon	518.201
	Midnight	518.150
10/17/95	Noon	518.137
	Midnight	518.112
10/18/95	Noon	518.175
	Midnight	518.125
10/19/95	Noon	518.131
	Midnight	518.074
10/20/95	Noon	518.131

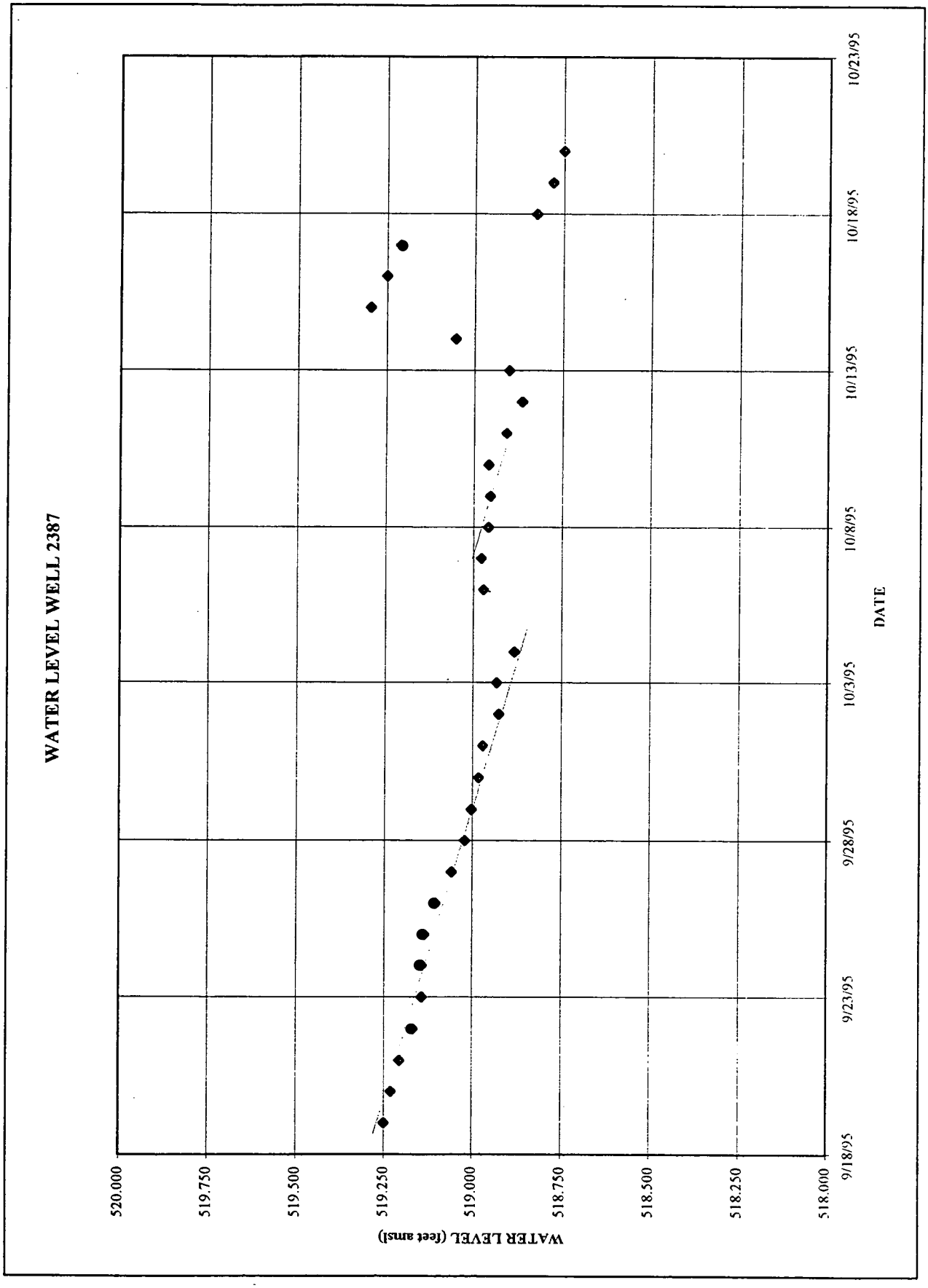

FIGURE D-1. WATER LEVELS IN WELL 2387 VS TIME

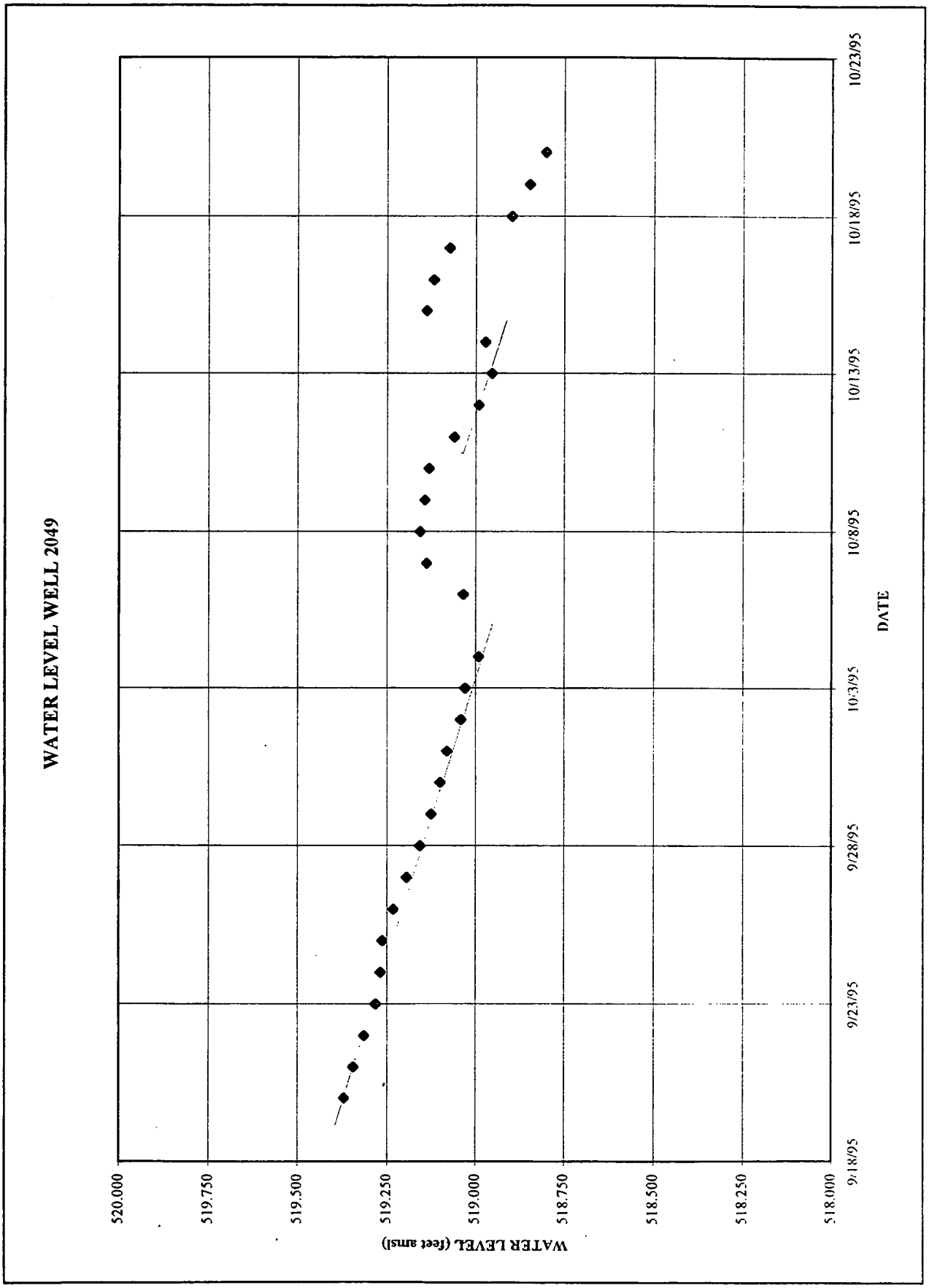

FIGURE D-2. WATER LEVELS IN WELL 2049 VS TIME

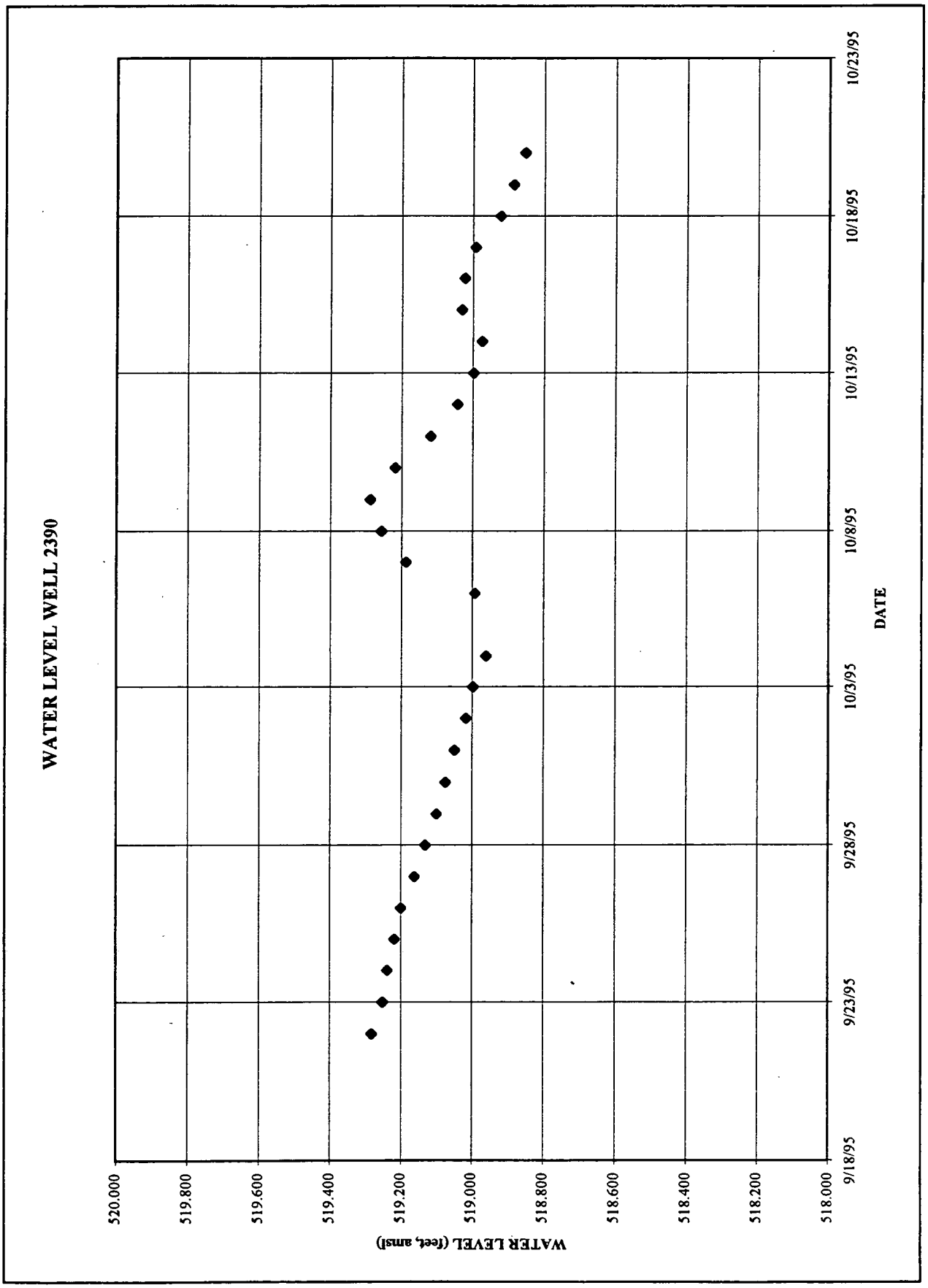

FIGURE D-3. WATER LEVELS IN WELL 2390 VS TIME

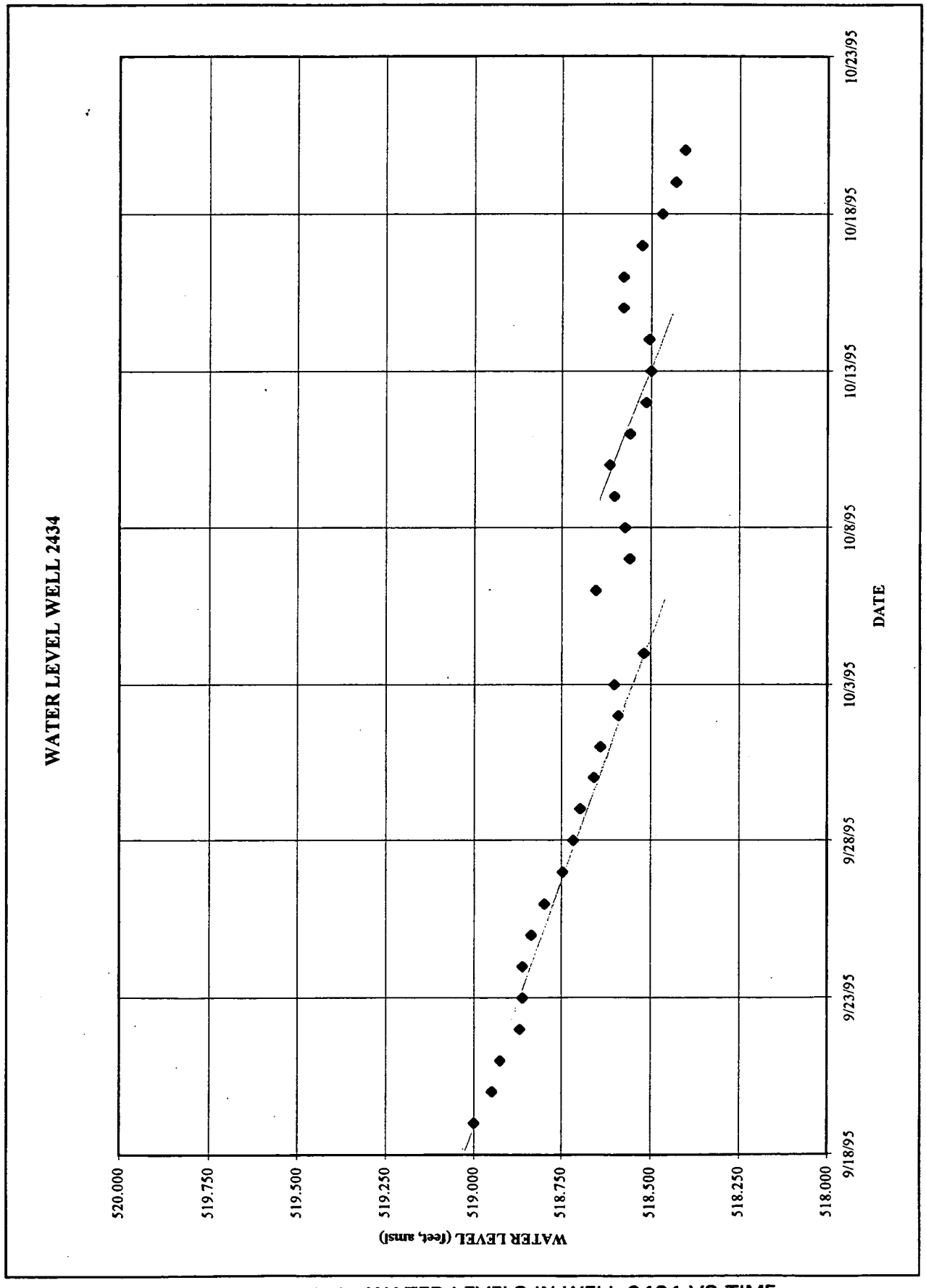

FIGURE D-4. WATER LEVELS IN WELL 2434 VS TIME

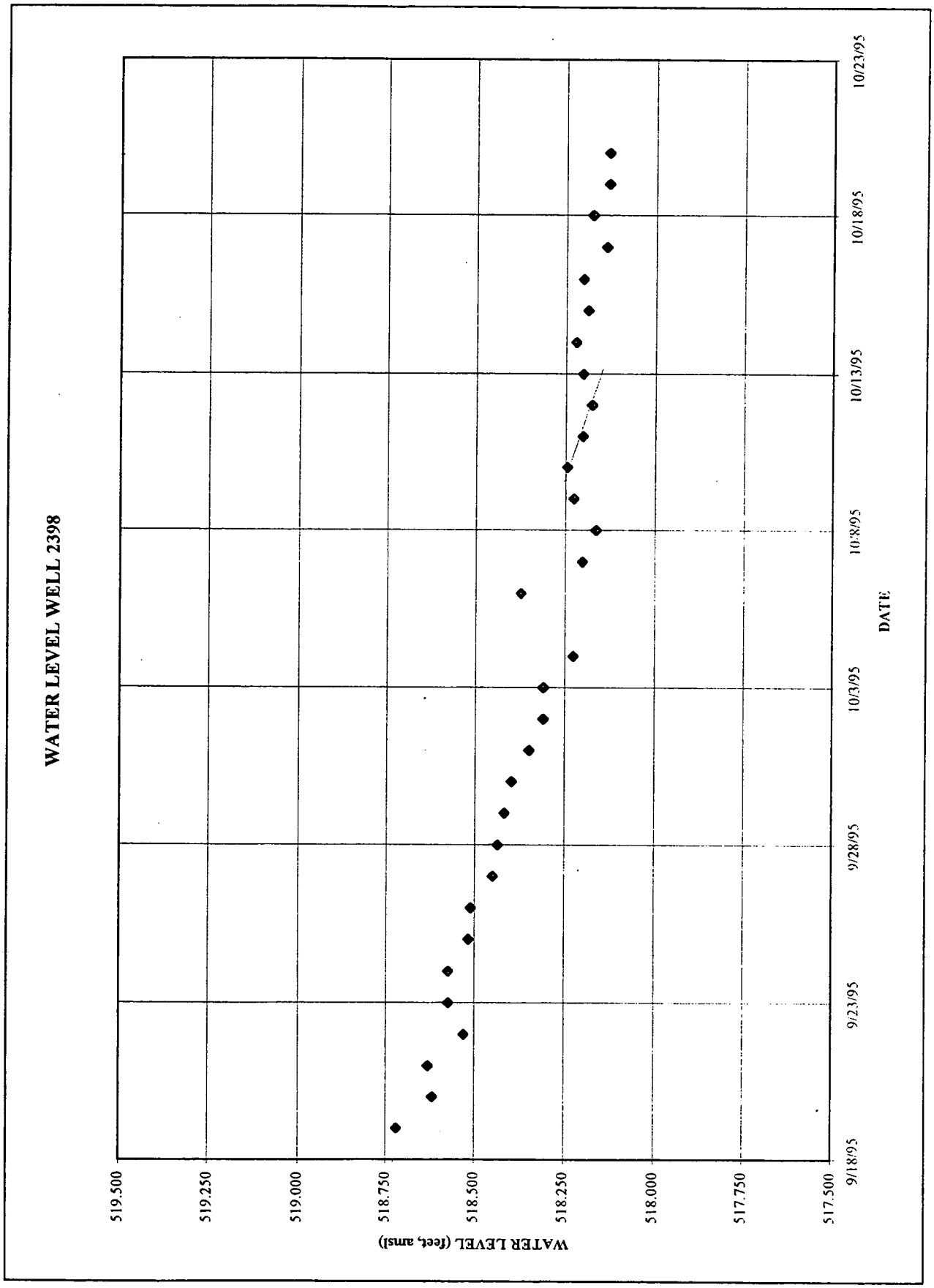

FIGURE D-5. WATER LEVELS IN WELL 2398 VS TIME

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Appendix E

APPENDIX E

SLUG TEST CALCULATIONS AND DATA

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Preinjection Slug Test 1	E-1 to E-3
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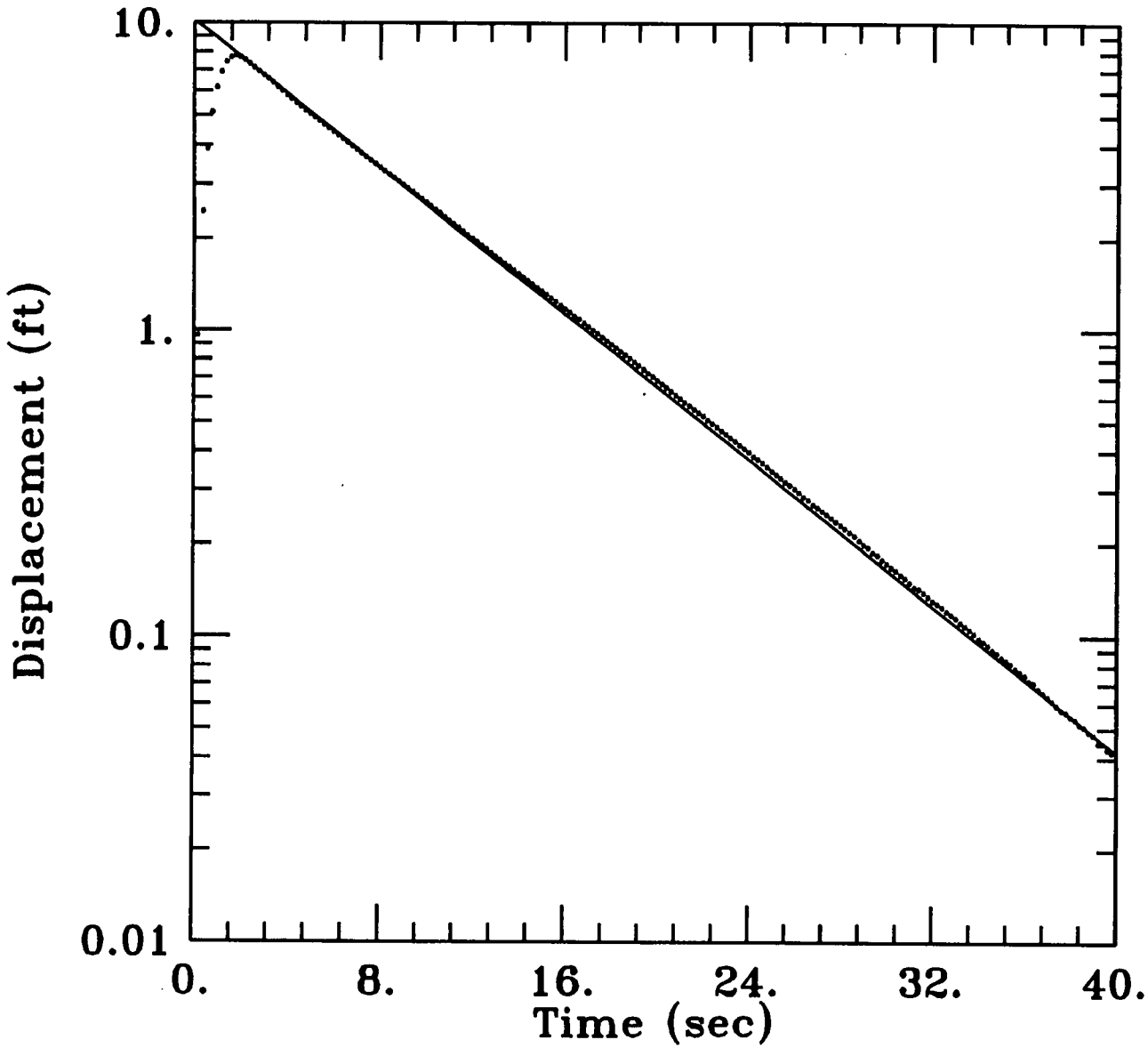
Postinjection Slug Test 1	E-10 to E-18
Postinjection Slug Test 2	E-19 to E-23
Postinjection Slug Test 3	E-24 to E-25



DATA SET:
PREVAC1.AQT
11/03/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

PROJECT DATA:
test date: 10/10/95
test well: 31550

TEST DATA:
H0 = 10. ft
rc = 0.5 ft
rw = 0.8333 ft
L = 20. ft
b = 135. ft
H = 31. ft

PARAMETER ESTIMATES:
K = 0.002795 ft/sec
y0 = 10.21 ft

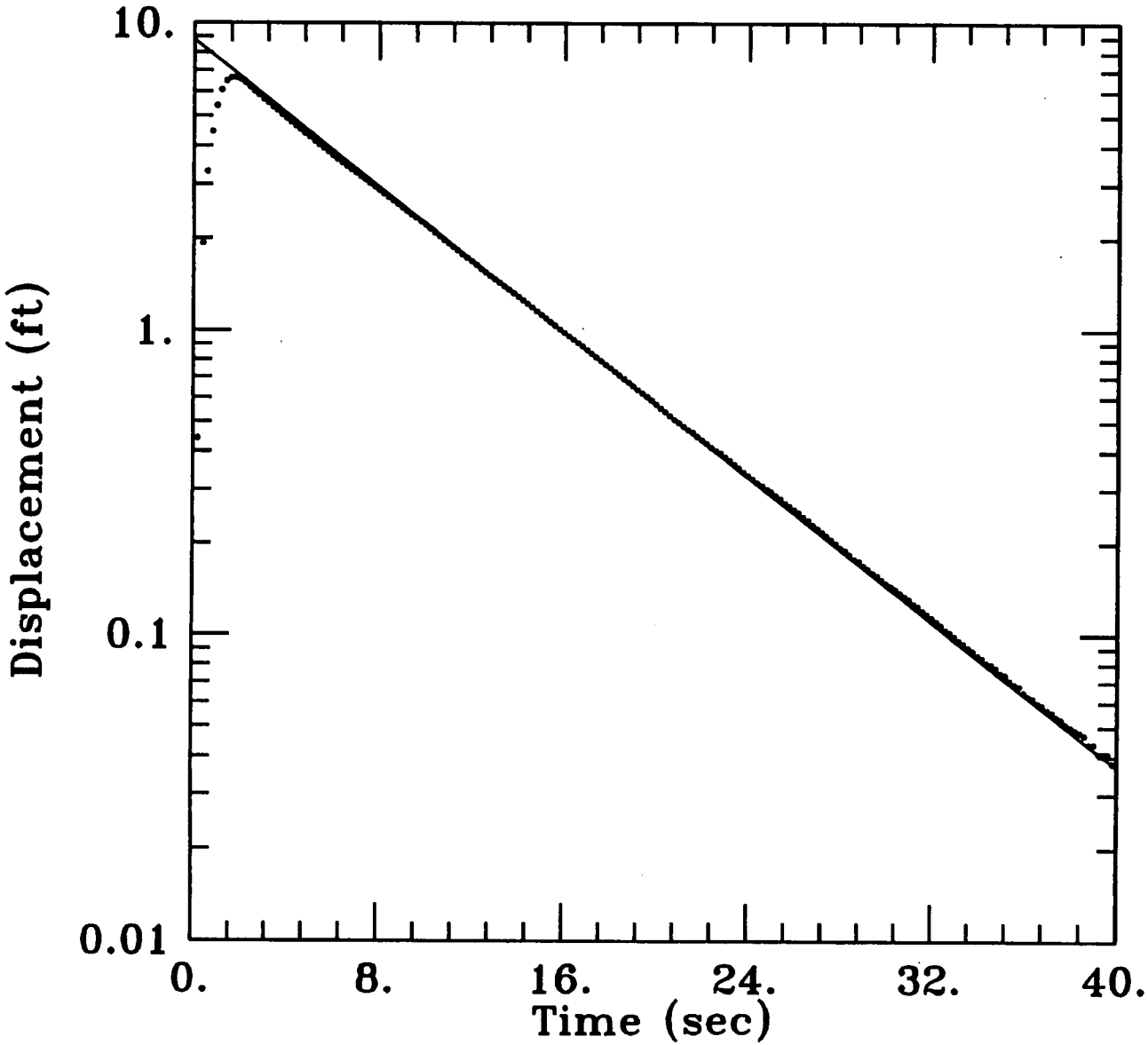
AQTESOLV

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
0.0	0.000	9.2	2.922	18.4	0.855	27.6	0.244
0.2	0.965	9.4	2.847	18.6	0.833	27.8	0.237
0.4	2.462	9.6	2.773	18.8	0.811	28.0	0.231
0.6	3.913	9.8	2.701	19.0	0.789	28.2	0.225
0.8	5.145	10.0	2.631	19.2	0.768	28.4	0.219
1.0	6.156	10.2	2.563	19.4	0.748	28.6	0.213
1.2	6.946	10.4	2.496	19.6	0.727	28.8	0.206
1.4	7.466	10.6	2.432	19.8	0.708	29.0	0.200
1.6	7.736	10.8	2.368	20.0	0.689	29.2	0.196
1.8	7.816	11.0	2.306	20.2	0.671	29.4	0.189
2.0	7.736	11.2	2.245	20.4	0.652	29.6	0.185
2.2	7.566	11.4	2.186	20.6	0.634	29.8	0.179
2.4	7.366	11.6	2.128	20.8	0.618	30.0	0.174
2.6	7.156	11.8	2.072	21.0	0.601	30.2	0.169
2.8	6.956	12.0	2.017	21.2	0.584	30.4	0.165
3.0	6.756	12.2	1.964	21.4	0.569	30.6	0.160
3.2	6.566	12.4	1.912	21.6	0.554	30.8	0.156
3.4	6.386	12.6	1.861	21.8	0.539	31.0	0.151
3.6	6.196	12.8	1.811	22.0	0.526	31.2	0.146
3.8	6.006	13.0	1.765	22.2	0.510	31.4	0.144
4.0	5.836	13.2	1.718	22.4	0.497	31.6	0.140
4.2	5.666	13.4	1.673	22.6	0.484	31.8	0.136
4.4	5.507	13.6	1.629	22.8	0.470	32.0	0.132
4.6	5.357	13.8	1.586	23.0	0.458	32.2	0.129
4.8	5.213	14.0	1.544	23.2	0.446	32.4	0.126
5.0	5.074	14.2	1.503	23.4	0.434	32.6	0.122
5.2	4.935	14.4	1.463	23.6	0.421	32.8	0.119
5.4	4.807	14.6	1.425	23.8	0.411	33.0	0.116
5.6	4.677	14.8	1.387	24.0	0.400	33.2	0.112
5.8	4.552	15.0	1.351	24.2	0.387	33.4	0.109
6.0	4.434	15.2	1.315	24.4	0.378	33.6	0.106
6.2	4.319	15.4	1.280	24.6	0.368	33.8	0.103
6.4	4.206	15.6	1.247	24.8	0.357	34.0	0.099
6.6	4.099	15.8	1.213	25.0	0.347	34.2	0.097
6.8	3.992	16.0	1.181	25.2	0.338	34.4	0.094
7.0	3.890	16.2	1.150	25.4	0.329	34.6	0.091
7.2	3.789	16.4	1.120	25.6	0.320	34.8	0.089
7.4	3.691	16.6	1.091	25.8	0.313	35.0	0.086
7.6	3.595	16.8	1.061	26.0	0.304	35.2	0.084
7.8	3.502	17.0	1.033	26.2	0.295	35.4	0.082
8.0	3.413	17.2	1.005	26.4	0.286	35.6	0.079
8.2	3.326	17.4	0.979	26.6	0.279	35.8	0.077
8.4	3.243	17.6	0.953	26.8	0.270	36.0	0.075
8.6	3.159	17.8	0.928	27.0	0.264	36.2	0.072
8.8	3.078	18.0	0.903	27.2	0.257	36.4	0.071
9.0	2.999	18.2	0.879	27.4	0.250	36.6	0.068

Time (sec)	Displt. (ft)
36.8	0.066
37.0	0.064
37.2	0.062
37.4	0.060
37.6	0.058
37.8	0.057
38.0	0.055
38.2	0.054
38.4	0.052
38.6	0.051
38.8	0.049
39.0	0.048
39.2	0.045
39.4	0.045
39.6	0.043
39.8	0.042
40.0	0.041
40.2	0.039
40.4	0.038
40.6	0.036
40.8	0.036
41.0	0.035
41.2	0.033
41.4	0.032
41.6	0.031
41.8	0.030
42.0	0.029
42.2	0.029
42.4	0.027
42.6	0.026
42.8	0.026
43.0	0.025
43.2	0.024
43.4	0.023
43.6	0.022
43.8	0.022
44.0	0.021
44.2	0.020
44.4	0.019
44.6	0.019
44.8	0.018
45.0	0.017
45.2	0.017
45.4	0.015
45.6	0.015
45.8	0.015

Time (sec)	Displt. (ft)
46.0	0.014
46.2	0.014
46.4	0.013
46.6	0.012
46.8	0.012
47.0	0.011
47.2	0.011
47.4	0.011
47.6	0.010
47.8	0.009
48.0	0.009
48.2	0.009
48.4	0.009
48.6	0.008
48.8	0.008
49.0	0.008
49.2	0.006
49.4	0.006
49.6	0.006
49.8	0.005
50.0	0.005
50.2	0.005
50.4	0.005
50.6	0.005
50.8	0.004
51.0	0.004
51.2	0.003
51.4	0.003
51.6	0.002
51.8	0.002
52.0	0.002
52.2	0.002
52.4	0.002
52.6	0.002
52.8	0.002
53.0	0.002
53.2	0.001
53.4	0.001
53.6	0.001

000263



DATA SET:
PREVAC2.CSV
11/03/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

PROJECT DATA:
test date: 10/10/95
test well: 31550

TEST DATA:
H0 = 10. ft
rc = 0.5 ft
rw = 0.8333 ft
L = 20. ft
b = 135. ft
H = 31. ft

PARAMETER ESTIMATES:
K = 0.002784 ft/sec
y0 = 8.809 ft

AQTESOLV

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
0.0	-	9.2	2.457	18.4	0.713	27.6	0.206
0.2	0.441	9.4	2.392	18.6	0.694	27.8	0.200
0.4	1.927	9.6	2.330	18.8	0.676	28.0	0.194
0.6	3.303	9.8	2.267	19.0	0.658	28.2	0.190
0.8	4.454	10.0	2.209	19.2	0.639	28.4	0.184
1.0	5.389	10.2	2.151	19.4	0.622	28.6	0.178
1.2	6.060	10.4	2.092	19.6	0.606	28.8	0.175
1.4	6.470	10.6	2.037	19.8	0.590	29.0	0.169
1.6	6.630	10.8	1.983	20.0	0.573	29.2	0.165
1.8	6.640	11.0	1.930	20.2	0.556	29.4	0.160
2.0	6.550	11.2	1.878	20.4	0.541	29.6	0.157
2.2	6.380	11.4	1.828	20.6	0.525	29.8	0.152
2.4	6.200	11.6	1.780	20.8	0.510	30.0	0.148
2.6	6.010	11.8	1.733	21.0	0.498	30.2	0.145
2.8	5.830	12.0	1.687	21.2	0.485	30.4	0.142
3.0	5.660	12.2	1.642	21.4	0.471	30.6	0.138
3.2	5.499	12.4	1.597	21.6	0.463	30.8	0.134
3.4	5.345	12.6	1.556	21.8	0.449	31.0	0.131
3.6	5.196	12.8	1.514	22.0	0.438	31.2	0.127
3.8	5.050	13.0	1.474	22.2	0.427	31.4	0.124
4.0	4.907	13.2	1.435	22.4	0.414	31.6	0.120
4.2	4.772	13.4	1.397	22.6	0.404	31.8	0.117
4.4	4.643	13.6	1.361	22.8	0.397	32.0	0.114
4.6	4.516	13.8	1.324	23.0	0.385	32.2	0.111
4.8	4.393	14.0	1.290	23.2	0.375	32.4	0.108
5.0	4.274	14.2	1.256	23.4	0.364	32.6	0.104
5.2	4.157	14.4	1.222	23.6	0.354	32.8	0.102
5.4	4.046	14.6	1.191	23.8	0.344	33.0	0.099
5.6	3.940	14.8	1.157	24.0	0.335	33.2	0.096
5.8	3.837	15.0	1.127	24.2	0.326	33.4	0.094
6.0	3.735	15.2	1.098	24.4	0.316	33.6	0.091
6.2	3.637	15.4	1.068	24.6	0.310	33.8	0.089
6.4	3.542	15.6	1.041	24.8	0.302	34.0	0.086
6.6	3.450	15.8	1.013	25.0	0.296	34.2	0.084
6.8	3.363	16.0	0.985	25.2	0.288	34.4	0.081
7.0	3.278	16.2	0.961	25.4	0.280	34.6	0.080
7.2	3.194	16.4	0.936	25.6	0.271	34.8	0.078
7.4	3.112	16.6	0.911	25.8	0.265	35.0	0.075
7.6	3.032	16.8	0.887	26.0	0.258	35.2	0.074
7.8	2.953	17.0	0.862	26.2	0.252	35.4	0.071
8.0	2.878	17.2	0.839	26.4	0.244	35.6	0.069
8.2	2.804	17.4	0.817	26.6	0.238	35.8	0.068
8.4	2.730	17.6	0.795	26.8	0.230	36.0	0.065
8.6	2.660	17.8	0.774	27.0	0.224	36.2	0.063
8.8	2.592	18.0	0.754	27.2	0.218	36.4	0.062
9.0	2.523	18.2	0.733	27.4	0.212	36.6	0.060

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
36.8	0.059	46.0	0.017	55.2	0.004
37.0	0.057	46.2	0.016	55.4	0.004
37.2	0.056	46.4	0.015	55.6	0.004
37.4	0.054	46.6	0.015	55.8	0.003
37.6	0.053	46.8	0.014	56.0	0.003
37.8	0.051	47.0	0.014	56.2	0.002
38.0	0.050	47.2	0.014	56.4	0.003
38.2	0.049	47.4	0.014	56.6	0.002
38.4	0.048	47.6	0.013	56.8	0.002
38.6	0.047	47.8	0.012	57.0	0.002
38.8	0.044	48.0	0.012	57.2	0.002
39.0	0.044	48.2	0.011	57.4	0.002
39.2	0.041	48.4	0.012	57.6	0.002
39.4	0.041	48.6	0.011	57.8	0.002
39.6	0.041	48.8	0.011	58.0	0.001
39.8	0.038	49.0	0.011	58.2	0.001
40.0	0.038	49.2	0.011	58.4	0.001
40.2	0.036	49.4	0.011		
40.4	0.035	49.6	0.010		
40.6	0.035	49.8	0.010		
40.8	0.034	50.0	0.009		
41.0	0.032	50.2	0.008		
41.2	0.032	50.4	0.008		
41.4	0.031	50.6	0.008		
41.6	0.030	50.8	0.008		
41.8	0.029	51.0	0.008		
42.0	0.029	51.2	0.008		
42.2	0.028	51.4	0.008		
42.4	0.026	51.6	0.008		
42.6	0.026	51.8	0.008		
42.8	0.026	52.0	0.007		
43.0	0.025	52.2	0.007		
43.2	0.024	52.4	0.007		
43.4	0.024	52.6	0.006		
43.6	0.023	52.8	0.005		
43.8	0.023	53.0	0.005		
44.0	0.021	53.2	0.005		
44.2	0.021	53.4	0.005		
44.4	0.020	53.6	0.005		
44.6	0.020	53.8	0.004		
44.8	0.020	54.0	0.004		
45.0	0.019	54.2	0.004		
45.2	0.019	54.4	0.004		
45.4	0.018	54.6	0.004		
45.6	0.017	54.8	0.004		
45.8	0.017	55.0	0.004		

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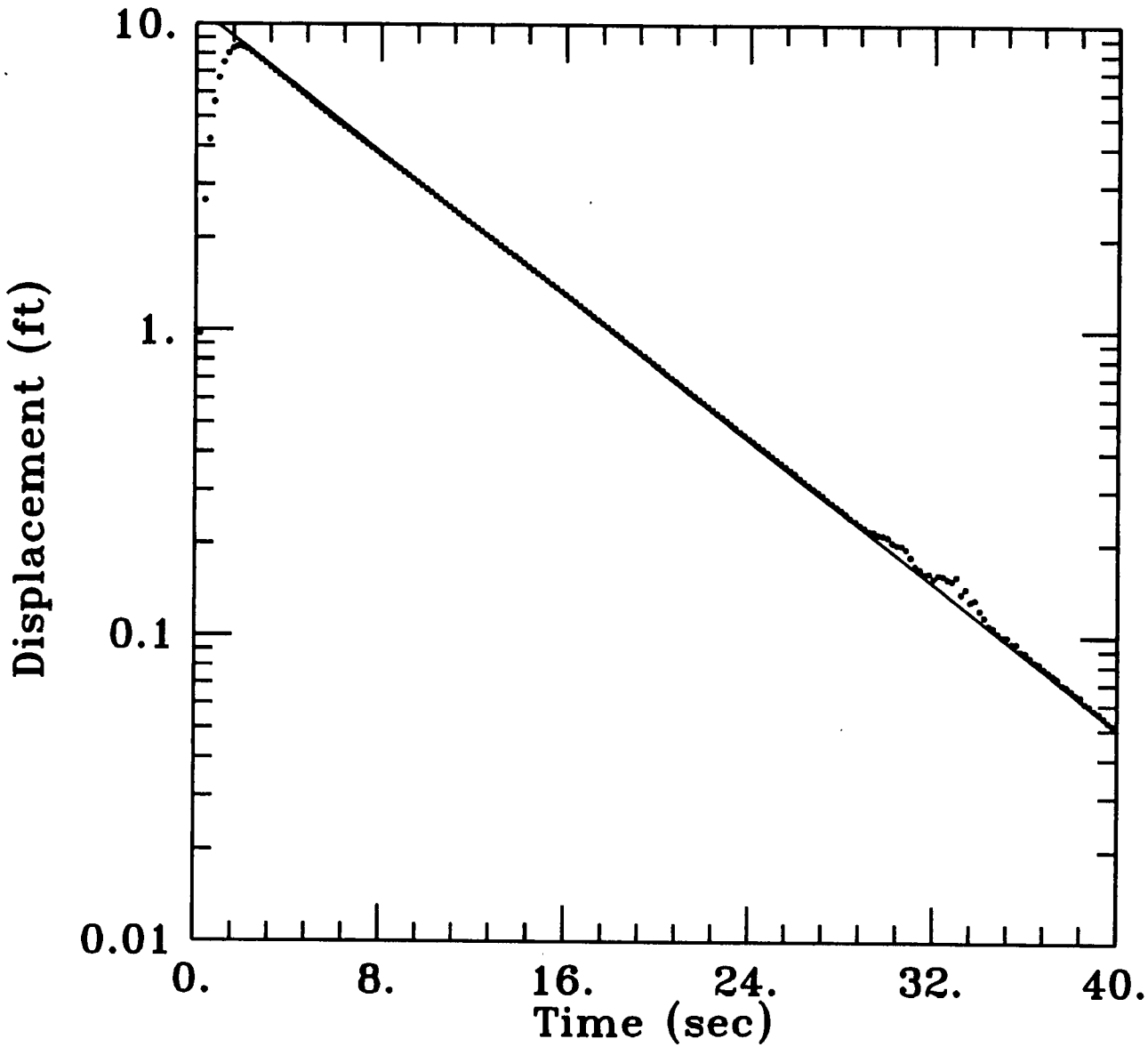

DATA SET:

11/03/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

PROJECT DATA:
test date: 10/10/95
test well: 31550

TEST DATA:
H0 = 10. ft
rc = 0.5 ft
rw = 0.8333 ft
L = 20. ft
b = 135. ft
H = 31. ft

PARAMETER ESTIMATES:
K = 0.002755 ft/sec
y0 = 11.32 ft

AQTESOLV

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
0.0	0.000	9.2	3.230	18.4	0.946	27.6	0.273
0.2	0.973	9.4	3.147	18.6	0.919	27.8	0.266
0.4	2.661	9.6	3.065	18.8	0.896	28.0	0.259
0.6	4.215	9.8	2.986	19.0	0.873	28.2	0.252
0.8	5.565	10.0	2.907	19.2	0.849	28.4	0.244
1.0	6.670	10.2	2.830	19.4	0.826	28.6	0.239
1.2	7.500	10.4	2.757	19.6	0.805	28.8	0.231
1.4	8.030	10.6	2.684	19.8	0.783	29.0	0.227
1.6	8.340	10.8	2.614	20.0	0.762	29.2	0.221
1.8	8.460	11.0	2.544	20.2	0.743	29.4	0.220
2.0	8.420	11.2	2.477	20.4	0.722	29.6	0.215
2.2	8.300	11.4	2.413	20.6	0.703	29.8	0.214
2.4	8.100	11.6	2.349	20.8	0.684	30.0	0.211
2.6	7.880	11.8	2.289	21.0	0.666	30.2	0.203
2.8	7.660	12.0	2.228	21.2	0.648	30.4	0.199
3.0	7.450	12.2	2.170	21.4	0.630	30.6	0.198
3.2	7.240	12.4	2.113	21.6	0.614	30.8	0.193
3.4	7.040	12.6	2.058	21.8	0.598	31.0	0.182
3.6	6.850	12.8	2.003	22.0	0.583	31.2	0.170
3.8	6.670	13.0	1.951	22.2	0.567	31.4	0.166
4.0	6.480	13.2	1.899	22.4	0.552	31.6	0.160
4.2	6.300	13.4	1.849	22.6	0.537	31.8	0.161
4.4	6.120	13.6	1.800	22.8	0.523	32.0	0.155
4.6	5.940	13.8	1.753	23.0	0.510	32.2	0.159
4.8	5.780	14.0	1.706	23.2	0.496	32.4	0.158
5.0	5.610	14.2	1.661	23.4	0.483	32.6	0.154
5.2	5.462	14.4	1.617	23.6	0.470	32.8	0.152
5.4	5.319	14.6	1.574	23.8	0.458	33.0	0.157
5.6	5.175	14.8	1.533	24.0	0.446	33.2	0.138
5.8	5.038	15.0	1.492	24.2	0.434	33.4	0.143
6.0	4.905	15.2	1.453	24.4	0.423	33.6	0.130
6.2	4.776	15.4	1.414	24.6	0.412	33.8	0.132
6.4	4.650	15.6	1.377	24.8	0.401	34.0	0.122
6.6	4.528	15.8	1.341	25.0	0.390	34.2	0.116
6.8	4.413	16.0	1.306	25.2	0.380	34.4	0.109
7.0	4.303	16.2	1.272	25.4	0.370	34.6	0.107
7.2	4.194	16.4	1.239	25.6	0.360	34.8	0.103
7.4	4.075	16.6	1.205	25.8	0.350	35.0	0.100
7.6	3.976	16.8	1.173	26.0	0.342	35.2	0.100
7.8	3.876	17.0	1.142	26.2	0.331	35.4	0.095
8.0	3.776	17.2	1.112	26.4	0.322	35.6	0.095
8.2	3.680	17.4	1.082	26.6	0.313	35.8	0.090
8.4	3.585	17.6	1.053	26.8	0.305	36.0	0.089
8.6	3.492	17.8	1.026	27.0	0.298	36.2	0.086
8.8	3.402	18.0	0.998	27.2	0.290	36.4	0.083
9.0	3.316	18.2	0.972	27.4	0.281	36.6	0.082

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
36.8	0.079	46.0	0.020	55.2	0.004
37.0	0.077	46.2	0.020	55.4	0.005
37.2	0.075	46.4	0.020	55.6	0.006
37.4	0.073	46.6	0.019	55.8	0.003
37.6	0.070	46.8	0.018	56.0	0.003
37.8	0.069	47.0	0.017	56.2	0.002
38.0	0.067	47.2	0.016	56.4	0.003
38.2	0.065	47.4	0.017	56.6	0.001
38.4	0.064	47.6	0.016	56.8	0.001
38.6	0.061	47.8	0.015	57.0	0.001
38.8	0.060	48.0	0.015	57.2	0.001
39.0	0.058	48.2	0.013	57.4	0.001
39.2	0.057	48.4	0.013	57.6	0.001
39.4	0.055	48.6	0.013	57.8	0.001
39.6	0.053	48.8	0.013		
39.8	0.052	49.0	0.013		
40.0	0.050	49.2	0.012		
40.2	0.049	49.4	0.012		
40.4	0.047	49.6	0.010		
40.6	0.047	49.8	0.010		
40.8	0.045	50.0	0.010		
41.0	0.043	50.2	0.010		
41.2	0.043	50.4	0.010		
41.4	0.041	50.6	0.010		
41.6	0.040	50.8	0.009		
41.8	0.040	51.0	0.008		
42.0	0.038	51.2	0.007		
42.2	0.036	51.4	0.007		
42.4	0.036	51.6	0.007		
42.6	0.035	51.8	0.007		
42.8	0.033	52.0	0.006		
43.0	0.032	52.2	0.006		
43.2	0.032	52.4	0.007		
43.4	0.030	52.6	0.007		
43.6	0.030	52.8	0.007		
43.8	0.029	53.0	0.007		
44.0	0.028	53.2	0.007		
44.2	0.027	53.4	0.008		
44.4	0.026	53.6	0.006		
44.6	0.026	53.8	0.006		
44.8	0.025	54.0	0.004		
45.0	0.024	54.2	0.004		
45.2	0.023	54.4	0.004		
45.4	0.023	54.6	0.004		
45.6	0.022	54.8	0.003		
45.8	0.021	55.0	0.003		

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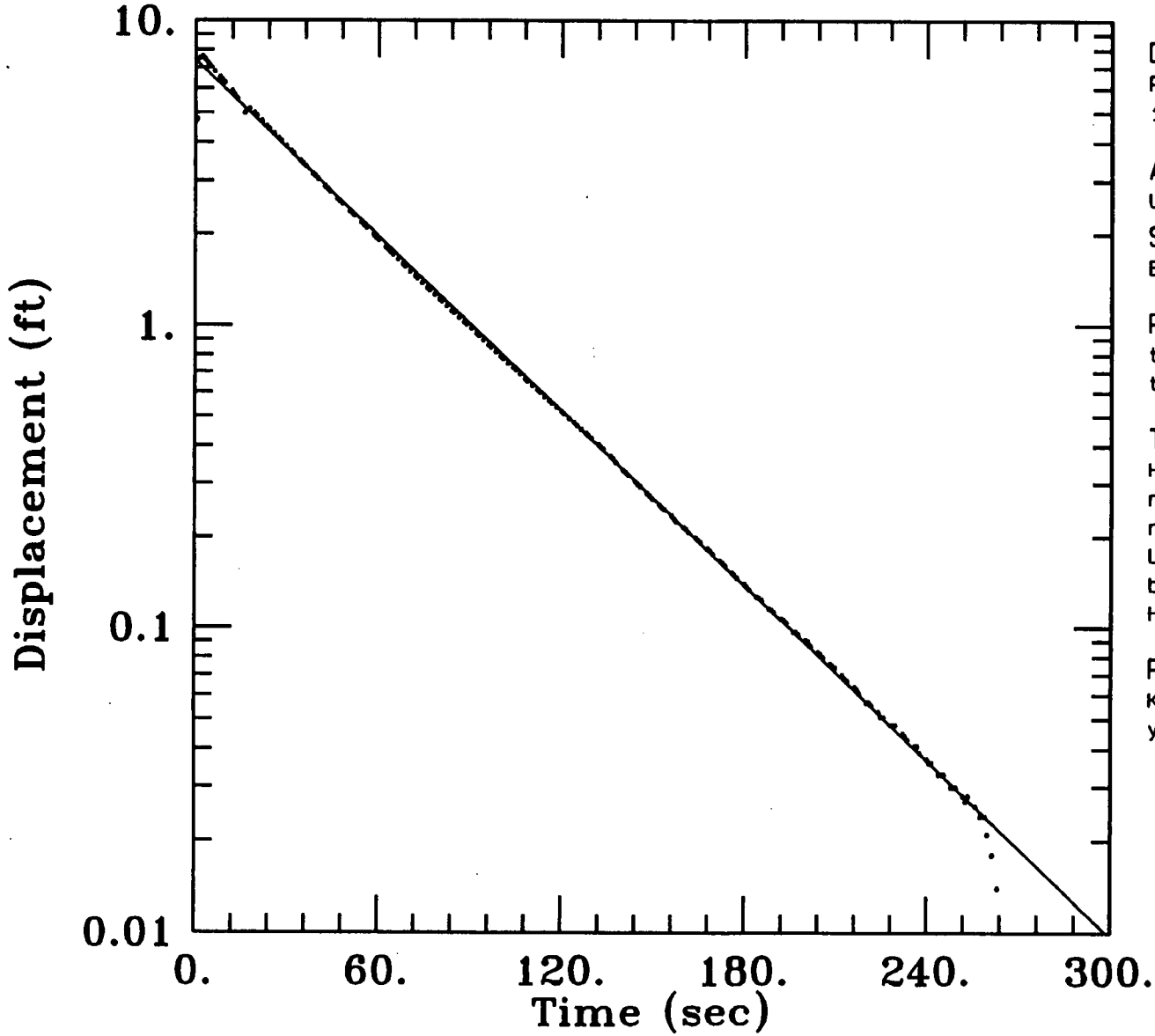


DATA SET:
POSTVAC1.AQT
11/03/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

PROJECT DATA:
test date: 10/17/95
test well: 31550 INJECTION WELL

TEST DATA:
H0 = 10. ft
rc = 0.5 ft
rw = 0.8333 ft
L = 20. ft
b = 135. ft
H = 31. ft

PARAMETER ESTIMATES:
K = 0.0004501 ft/sec
y0 = 7.405 ft

AQTESOLV

POSTVAC1 1

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
0.0	0.000	9.2	6.340	18.4	5.015	27.6	4.093
0.2	0.477	9.4	6.300	18.6	4.955	27.8	4.074
0.4	2.119	9.6	6.270	18.8	4.890	28.0	4.056
0.6	3.492	9.8	6.240	19.0	4.902	28.2	4.037
0.8	4.760	10.0	6.210	19.2	5.014	28.4	4.018
1.0	5.910	10.2	6.180	19.4	4.969	28.6	4.000
1.2	6.810	10.4	6.140	19.6	4.938	28.8	3.981
1.4	7.310	10.6	6.110	19.8	4.925	29.0	3.962
1.6	7.560	10.8	6.080	20.0	4.893	29.2	3.945
1.8	7.730	11.0	6.050	20.2	4.873	29.4	3.926
2.0	7.790	11.2	6.020	20.4	4.848	29.6	3.907
2.2	7.740	11.4	5.990	20.6	4.824	29.8	3.889
2.4	7.660	11.6	5.960	20.8	4.801	30.0	3.872
2.6	7.610	11.8	5.930	21.0	4.778	30.2	3.853
2.8	7.570	12.0	5.900	21.2	4.756	30.4	3.834
3.0	7.520	12.2	5.870	21.4	4.731	30.6	3.817
3.2	7.480	12.4	5.810	21.6	4.709	30.8	3.800
3.4	7.430	12.6	5.730	21.8	4.687	31.0	3.781
3.6	7.390	12.8	5.720	22.0	4.665	31.2	3.763
3.8	7.340	13.0	5.680	22.2	4.642	31.4	3.746
4.0	7.300	13.2	5.630	22.4	4.621	31.6	3.728
4.2	7.260	13.4	5.640	22.6	4.598	31.8	3.710
4.4	7.210	13.6	5.580	22.8	4.576	32.0	3.693
4.6	7.170	13.8	5.630	23.0	4.554	32.2	3.675
4.8	7.130	14.0	5.650	23.2	4.532	32.4	3.659
5.0	7.090	14.2	5.580	23.4	4.511	32.6	3.641
5.2	7.050	14.4	5.530	23.6	4.490	32.8	3.624
5.4	7.010	14.6	5.460	23.8	4.468	33.0	3.607
5.6	6.980	14.8	5.390	24.0	4.447	33.2	3.590
5.8	6.940	15.0	5.330	24.2	4.427	33.4	3.573
6.0	6.900	15.2	5.260	24.4	4.407	33.6	3.556
6.2	6.860	15.4	5.190	24.6	4.387	33.8	3.539
6.4	6.830	15.6	5.130	24.8	4.365	34.0	3.523
6.6	6.790	15.8	5.070	25.0	4.347	34.2	3.507
6.8	6.760	16.0	5.004	25.2	4.326	34.4	3.490
7.0	6.720	16.2	4.945	25.4	4.307	34.6	3.474
7.2	6.680	16.4	4.887	25.6	4.287	34.8	3.458
7.4	6.650	16.6	4.832	25.8	4.267	35.0	3.441
7.6	6.610	16.8	4.942	26.0	4.247	35.2	3.425
7.8	6.580	17.0	5.220	26.2	4.228	35.4	3.409
8.0	6.540	17.2	5.260	26.4	4.209	35.6	3.393
8.2	6.510	17.4	5.180	26.6	4.190	35.8	3.376
8.4	6.470	17.6	5.170	26.8	4.170	36.0	3.360
8.6	6.440	17.8	5.130	27.0	4.150	36.2	3.345
8.8	6.410	18.0	5.130	27.2	4.132	36.4	3.329
9.0	6.370	18.2	5.090	27.4	4.113	36.6	3.313

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
36.8	3.298	46.0	2.657	55.2	2.144	64.4	1.736
37.0	3.283	46.2	2.645	55.4	2.135	64.6	1.727
37.2	3.267	46.4	2.633	55.6	2.124	64.8	1.718
37.4	3.251	46.6	2.620	55.8	2.114	65.0	1.712
37.6	3.237	46.8	2.608	56.0	2.104	65.2	1.703
37.8	3.222	47.0	2.596	56.2	2.095	65.4	1.696
38.0	3.207	47.2	2.585	56.4	2.086	65.6	1.688
38.2	3.191	47.4	2.572	56.6	2.076	65.8	1.680
38.4	3.176	47.6	2.560	56.8	2.067	66.0	1.673
38.6	3.161	47.8	2.549	57.0	2.057	66.2	1.665
38.8	3.146	48.0	2.537	57.2	2.046	66.4	1.659
39.0	3.131	48.2	2.524	57.4	2.037	66.6	1.650
39.2	3.117	48.4	2.513	57.6	2.028	66.8	1.644
39.4	3.101	48.6	2.501	57.8	2.019	67.0	1.635
39.6	3.088	48.8	2.490	58.0	2.010	67.2	1.629
39.8	3.073	49.0	2.478	58.2	2.000	67.4	1.621
40.0	3.059	49.2	2.466	58.4	1.991	67.6	1.613
40.2	3.044	49.4	2.454	58.6	1.982	67.8	1.606
40.4	3.030	49.6	2.444	58.8	1.972	68.0	1.598
40.6	3.016	49.8	2.432	59.0	1.964	68.2	1.592
40.8	3.001	50.0	2.420	59.2	1.956	68.4	1.584
41.0	2.987	50.2	2.410	59.4	1.946	68.6	1.577
41.2	2.973	50.4	2.398	59.6	1.938	68.8	1.570
41.4	2.958	50.6	2.387	59.8	1.929	69.0	1.564
41.6	2.945	50.8	2.375	60.0	1.920	69.2	1.556
41.8	2.930	51.0	2.365	60.2	1.911	69.4	1.549
42.0	2.918	51.2	2.355	60.4	1.901	69.6	1.542
42.2	2.903	51.4	2.343	60.6	1.893	69.8	1.534
42.4	2.890	51.6	2.332	60.8	1.885	70.0	1.528
42.6	2.875	51.8	2.322	61.0	1.876	70.2	1.521
42.8	2.862	52.0	2.310	61.2	1.867	70.4	1.514
43.0	2.850	52.2	2.300	61.4	1.858	70.6	1.507
43.2	2.835	52.4	2.289	61.6	1.850	70.8	1.500
43.4	2.823	52.6	2.279	61.8	1.842	71.0	1.494
43.6	2.809	52.8	2.268	62.0	1.834	71.2	1.487
43.8	2.796	53.0	2.258	62.2	1.824	71.4	1.481
44.0	2.784	53.2	2.246	62.4	1.817	71.6	1.474
44.2	2.771	53.4	2.237	62.6	1.809	71.8	1.467
44.4	2.757	53.6	2.225	62.8	1.800	72.0	1.461
44.6	2.745	53.8	2.215	63.0	1.792	72.2	1.454
44.8	2.732	54.0	2.205	63.2	1.784	72.4	1.448
45.0	2.718	54.2	2.195	63.4	1.776	72.6	1.441
45.2	2.707	54.4	2.184	63.6	1.767	72.8	1.434
45.4	2.695	54.6	2.174	63.8	1.759	73.0	1.429
45.6	2.683	54.8	2.165	64.0	1.751	73.2	1.421
45.8	2.669	55.0	2.154	64.2	1.743	73.4	1.417

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
73.6	1.409	82.6	1.155	91.6	0.951	100.6	0.783
73.8	1.403	82.8	1.151	91.8	0.949	100.8	0.779
74.0	1.397	83.0	1.145	92.0	0.943	101.0	0.776
74.2	1.391	83.2	1.139	92.2	0.940	101.2	0.773
74.4	1.385	83.4	1.134	92.4	0.936	101.4	0.769
74.6	1.378	83.6	1.131	92.6	0.933	101.6	0.766
74.8	1.372	83.8	1.126	92.8	0.928	101.8	0.763
75.0	1.366	84.0	1.120	93.0	0.923	102.0	0.760
75.2	1.360	84.2	1.115	93.2	0.920	102.2	0.757
75.4	1.354	84.4	1.111	93.4	0.916	102.4	0.754
75.6	1.347	84.6	1.106	93.6	0.913	102.6	0.751
75.8	1.342	84.8	1.101	93.8	0.908	102.8	0.748
76.0	1.335	85.0	1.097	94.0	0.905	103.0	0.745
76.2	1.330	85.2	1.091	94.2	0.900	103.2	0.741
76.4	1.323	85.4	1.087	94.4	0.897	103.4	0.738
76.6	1.318	85.6	1.082	94.6	0.891	103.6	0.734
76.8	1.312	85.8	1.078	94.8	0.889	103.8	0.731
77.0	1.307	86.0	1.074	95.0	0.885	104.0	0.728
77.2	1.300	86.2	1.068	95.2	0.880	104.2	0.725
77.4	1.295	86.4	1.065	95.4	0.877	104.4	0.721
77.6	1.289	86.6	1.060	95.6	0.873	104.6	0.718
77.8	1.283	86.8	1.055	95.8	0.870	104.8	0.714
78.0	1.277	87.0	1.051	96.0	0.865	105.0	0.712
78.2	1.273	87.2	1.046	96.2	0.862	105.2	0.708
78.4	1.266	87.4	1.042	96.4	0.858	105.4	0.705
78.6	1.262	87.6	1.038	96.6	0.854	105.6	0.702
78.8	1.255	87.8	1.033	96.8	0.850	105.8	0.699
79.0	1.250	88.0	1.028	97.0	0.847	106.0	0.697
79.2	1.246	88.2	1.025	97.2	0.843	106.2	0.693
79.4	1.240	88.4	1.020	97.4	0.839	106.4	0.692
79.6	1.234	88.6	1.017	97.6	0.836	106.6	0.687
79.8	1.228	88.8	1.012	97.8	0.832	106.8	0.684
80.0	1.224	89.0	1.008	98.0	0.828	107.0	0.682
80.2	1.218	89.2	1.003	98.2	0.825	107.2	0.679
80.4	1.213	89.4	0.999	98.4	0.822	107.4	0.676
80.6	1.207	89.6	0.994	98.6	0.818	107.6	0.673
80.8	1.203	89.8	0.991	98.8	0.814	107.8	0.670
81.0	1.197	90.0	0.986	99.0	0.811	108.0	0.667
81.2	1.190	90.2	0.982	99.2	0.807	108.2	0.664
81.4	1.186	90.4	0.979	99.4	0.804	108.4	0.662
81.6	1.180	90.6	0.973	99.6	0.800	108.6	0.659
81.8	1.175	90.8	0.969	99.8	0.797	108.8	0.656
82.0	1.170	91.0	0.965	100.0	0.794	109.0	0.652
82.2	1.164	91.2	0.960	100.2	0.791	109.2	0.649
82.4	1.160	91.4	0.956	100.4	0.786	109.4	0.647

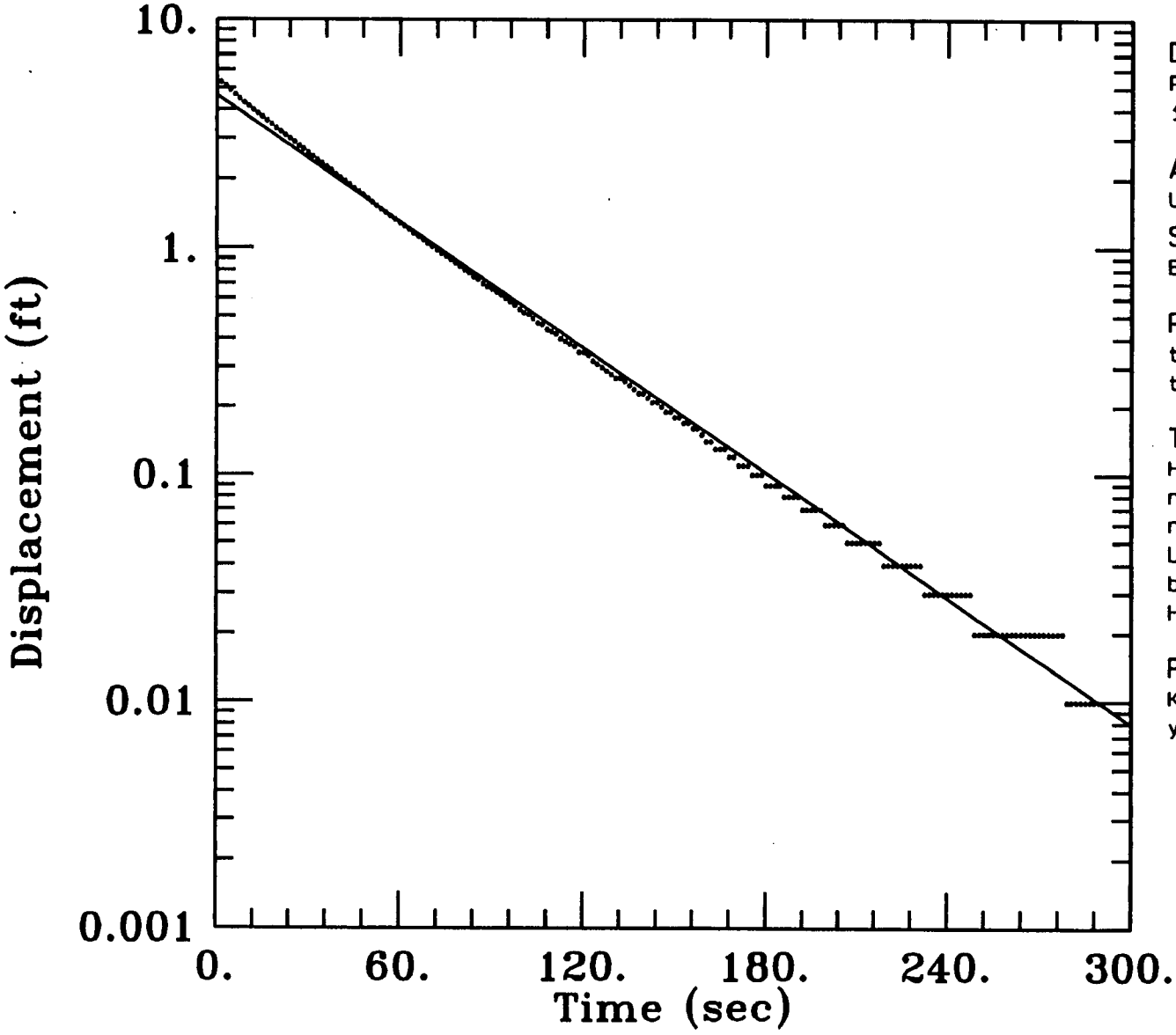
Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
109.6	0.643	118.8	0.532	128.0	0.440	137.2	0.359
109.8	0.641	119.0	0.529	128.2	0.438	137.4	0.358
110.0	0.638	119.2	0.527	128.4	0.435	137.6	0.355
110.2	0.636	119.4	0.525	128.6	0.434	137.8	0.355
110.4	0.633	119.6	0.522	128.8	0.432	138.2	0.351
110.6	0.631	119.8	0.520	129.0	0.430	138.4	0.349
110.8	0.629	120.0	0.518	129.2	0.428	138.6	0.347
111.0	0.626	120.2	0.515	129.4	0.427	138.8	0.346
111.2	0.623	120.4	0.514	129.6	0.425	139.0	0.343
111.4	0.621	120.6	0.512	129.8	0.423	139.2	0.342
111.6	0.619	120.8	0.510	130.0	0.421	139.4	0.339
111.8	0.614	121.0	0.508	130.2	0.420	139.6	0.339
112.0	0.613	121.2	0.506	130.4	0.417	139.8	0.335
112.2	0.609	121.4	0.504	130.6	0.416	140.0	0.334
112.4	0.606	121.6	0.502	130.8	0.414	140.2	0.333
112.6	0.606	121.8	0.500	131.0	0.413	140.4	0.331
112.8	0.601	122.0	0.498	131.2	0.411	140.6	0.331
113.0	0.598	122.2	0.496	131.4	0.409	140.8	0.328
113.2	0.597	122.4	0.493	131.6	0.407	141.0	0.326
113.4	0.593	122.6	0.492	131.8	0.406	141.2	0.324
113.6	0.592	122.8	0.489	132.0	0.405	141.4	0.319
113.8	0.589	123.0	0.487	132.2	0.401	141.6	0.321
114.0	0.588	123.2	0.486	132.4	0.401	141.8	0.320
114.2	0.583	123.4	0.483	132.6	0.398	142.0	0.318
114.4	0.581	123.6	0.481	132.8	0.397	142.2	0.317
114.6	0.581	123.8	0.479	133.0	0.395	142.4	0.315
114.8	0.575	124.0	0.477	133.2	0.394	142.6	0.315
115.0	0.574	124.2	0.475	133.4	0.392	142.8	0.312
115.2	0.572	124.4	0.472	133.6	0.391	143.0	0.312
115.4	0.570	124.6	0.471	133.8	0.388	143.2	0.310
115.6	0.567	124.8	0.468	134.0	0.386	143.4	0.309
115.8	0.563	125.0	0.467	134.2	0.386	143.6	0.307
116.0	0.564	125.2	0.465	134.4	0.383	143.8	0.306
116.2	0.560	125.4	0.463	134.6	0.382	144.0	0.305
116.4	0.557	125.6	0.462	134.8	0.380	144.2	0.302
116.6	0.557	125.8	0.459	135.0	0.379	144.4	0.302
116.8	0.553	126.0	0.458	135.2	0.377	144.6	0.300
117.0	0.552	126.2	0.456	135.4	0.376	144.8	0.299
117.2	0.549	126.4	0.453	135.6	0.373	145.0	0.298
117.4	0.547	126.6	0.453	135.8	0.371	145.2	0.296
117.6	0.546	126.8	0.450	136.0	0.371	145.4	0.296
117.8	0.542	127.0	0.448	136.2	0.368	145.6	0.294
118.0	0.540	127.2	0.447	136.4	0.368	145.8	0.293
118.2	0.538	127.4	0.444	136.6	0.364	146.0	0.291
118.4	0.537	127.6	0.444	136.8	0.364	146.2	0.290
118.6	0.533	127.8	0.441	137.0	0.361	146.4	0.289

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
146.6	0.287	155.8	0.236	165.0	0.194	174.2	0.158
146.8	0.287	156.0	0.236	165.2	0.193	174.4	0.158
147.0	0.285	156.2	0.233	165.4	0.193	174.6	0.158
147.2	0.284	156.4	0.232	165.6	0.192	175.0	0.156
147.4	0.282	156.6	0.232	165.8	0.192	175.2	0.155
147.6	0.282	156.8	0.231	166.0	0.192	175.4	0.155
147.8	0.280	157.0	0.229	166.2	0.190	175.6	0.154
148.0	0.279	157.2	0.229	166.4	0.189	175.8	0.153
148.2	0.278	157.4	0.228	166.6	0.187	176.0	0.153
148.4	0.275	157.6	0.226	166.8	0.186	176.2	0.152
148.6	0.275	157.8	0.226	167.0	0.186	176.4	0.152
148.8	0.274	158.0	0.225	167.2	0.186	176.6	0.150
149.0	0.273	158.2	0.223	167.4	0.184	176.8	0.150
149.2	0.272	158.4	0.223	167.6	0.185	177.0	0.150
149.4	0.269	158.6	0.222	167.8	0.183	177.2	0.149
149.6	0.269	158.8	0.221	168.0	0.183	177.4	0.149
149.8	0.268	159.0	0.220	168.2	0.180	177.6	0.147
150.0	0.266	159.2	0.219	168.4	0.180	177.8	0.147
150.2	0.266	159.4	0.218	168.6	0.180	178.0	0.147
150.4	0.264	159.6	0.217	168.8	0.180	178.2	0.146
150.6	0.263	159.8	0.216	169.0	0.179	178.4	0.145
150.8	0.262	160.0	0.216	169.2	0.178	178.6	0.143
151.0	0.261	160.2	0.214	169.4	0.177	178.8	0.143
151.2	0.260	160.4	0.214	169.6	0.176	179.0	0.143
151.4	0.258	160.6	0.213	169.8	0.175	179.2	0.143
151.6	0.257	160.8	0.213	170.0	0.174	179.4	0.141
151.8	0.256	161.0	0.211	170.2	0.174	179.6	0.140
152.0	0.256	161.2	0.210	170.4	0.174	179.8	0.140
152.2	0.254	161.4	0.209	170.6	0.171	180.0	0.140
152.4	0.253	161.6	0.208	170.8	0.173	180.2	0.139
152.6	0.252	161.8	0.208	171.0	0.171	180.4	0.138
152.8	0.251	162.0	0.207	171.2	0.170	180.6	0.137
153.0	0.250	162.2	0.206	171.4	0.170	180.8	0.137
153.2	0.249	162.4	0.205	171.6	0.169	181.0	0.137
153.4	0.248	162.6	0.205	171.8	0.168	181.2	0.137
153.6	0.247	162.8	0.204	172.0	0.167	181.4	0.135
153.8	0.246	163.0	0.203	172.2	0.167	181.6	0.134
154.0	0.245	163.2	0.202	172.4	0.166	181.8	0.134
154.2	0.244	163.4	0.202	172.6	0.165	182.0	0.134
154.4	0.243	163.6	0.202	172.8	0.164	182.2	0.133
154.6	0.242	163.8	0.199	173.0	0.164	182.4	0.133
154.8	0.241	164.0	0.199	173.2	0.162	182.6	0.130
155.0	0.240	164.2	0.199	173.4	0.162	182.8	0.131
155.2	0.239	164.4	0.197	173.6	0.161	183.0	0.131
155.4	0.238	164.6	0.196	173.8	0.159	183.2	0.130
155.6	0.236	164.8	0.196	174.0	0.161	183.4	0.130

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
183.6	0.127	192.8	0.106	202.0	0.087	211.4	0.070
183.8	0.128	193.0	0.105	202.2	0.087	211.8	0.070
184.0	0.127	193.2	0.104	202.6	0.085	212.0	0.070
184.2	0.127	193.4	0.104	202.8	0.085	212.2	0.070
184.4	0.127	193.6	0.104	203.0	0.085	212.4	0.069
184.6	0.127	193.8	0.103	203.2	0.084	212.6	0.069
184.8	0.126	194.0	0.103	203.4	0.084	212.8	0.068
185.0	0.124	194.2	0.103	203.6	0.084	213.0	0.069
185.2	0.126	194.4	0.101	203.8	0.084	213.2	0.067
185.4	0.123	194.6	0.100	204.0	0.083	213.4	0.067
185.6	0.124	194.8	0.100	204.2	0.082	213.6	0.067
185.8	0.123	195.0	0.100	204.4	0.082	213.8	0.067
186.0	0.124	195.2	0.100	204.6	0.081	214.0	0.067
186.2	0.122	195.4	0.100	204.8	0.082	214.2	0.067
186.4	0.121	195.6	0.100	205.0	0.082	214.4	0.066
186.6	0.121	195.8	0.099	205.2	0.081	214.6	0.066
186.8	0.119	196.0	0.097	205.4	0.081	214.8	0.066
187.0	0.120	196.2	0.097	205.6	0.080	215.0	0.066
187.2	0.119	196.4	0.097	205.8	0.080	215.2	0.066
187.4	0.119	196.6	0.097	206.0	0.080	215.4	0.064
187.6	0.117	196.8	0.097	206.2	0.079	215.6	0.066
187.8	0.117	197.0	0.097	206.4	0.079	215.8	0.064
188.0	0.116	197.2	0.097	206.6	0.078	216.0	0.064
188.2	0.116	197.4	0.094	206.8	0.078	216.2	0.064
188.4	0.116	197.6	0.095	207.0	0.078	216.4	0.063
188.6	0.115	197.8	0.094	207.2	0.078	216.6	0.063
188.8	0.115	198.0	0.094	207.4	0.077	216.8	0.063
189.0	0.115	198.2	0.094	207.6	0.076	217.0	0.063
189.2	0.114	198.4	0.094	207.8	0.076	217.2	0.062
189.4	0.113	198.6	0.094	208.0	0.076	217.4	0.061
189.6	0.113	198.8	0.094	208.2	0.076	217.6	0.061
189.8	0.112	199.0	0.093	208.4	0.075	217.8	0.061
190.0	0.113	199.2	0.091	208.6	0.075	218.0	0.061
190.2	0.111	199.4	0.091	208.8	0.075	218.2	0.061
190.4	0.110	199.6	0.091	209.0	0.075	218.4	0.060
190.6	0.110	199.8	0.091	209.2	0.074	218.6	0.060
190.8	0.110	200.0	0.091	209.4	0.074	218.8	0.060
191.0	0.110	200.2	0.090	209.6	0.074	219.0	0.060
191.2	0.109	200.4	0.090	209.8	0.073	219.2	0.059
191.4	0.109	200.6	0.089	210.0	0.073	219.4	0.058
191.6	0.107	200.8	0.090	210.2	0.073	219.6	0.058
191.8	0.109	201.0	0.088	210.4	0.072	219.8	0.057
192.0	0.107	201.2	0.088	210.6	0.072	220.0	0.057
192.2	0.107	201.4	0.088	210.8	0.071	220.2	0.057
192.4	0.107	201.6	0.087	211.0	0.072	220.4	0.057
192.6	0.106	201.8	0.087	211.2	0.071	220.6	0.057

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
220.8	0.057	230.0	0.047	239.2	0.038	248.4	0.030
221.0	0.057	230.2	0.048	239.4	0.038	248.6	0.030
221.2	0.056	230.4	0.046	239.6	0.038	248.8	0.030
221.4	0.054	230.6	0.047	239.8	0.038	249.0	0.030
221.6	0.056	230.8	0.047	240.0	0.037	249.2	0.030
221.8	0.054	231.0	0.045	240.2	0.037	249.4	0.030
222.0	0.054	231.2	0.045	240.4	0.036	249.6	0.030
222.2	0.054	231.4	0.045	240.6	0.036	249.8	0.030
222.4	0.054	231.6	0.045	240.8	0.036	250.0	0.029
222.6	0.054	231.8	0.045	241.0	0.036	250.2	0.029
222.8	0.054	232.0	0.045	241.2	0.036	250.4	0.029
223.0	0.054	232.2	0.044	241.4	0.036	250.6	0.027
223.2	0.054	232.4	0.045	241.6	0.036	250.8	0.029
223.4	0.054	232.6	0.045	241.8	0.036	251.0	0.027
223.6	0.054	232.8	0.044	242.0	0.035	251.2	0.029
223.8	0.054	233.0	0.044	242.2	0.035	251.4	0.028
224.0	0.053	233.2	0.044	242.4	0.035	251.6	0.027
224.2	0.054	233.4	0.044	242.6	0.035	251.8	0.028
224.4	0.053	233.6	0.043	242.8	0.035	252.0	0.028
224.6	0.052	233.8	0.042	243.0	0.035	252.2	0.028
224.8	0.051	234.0	0.042	243.2	0.035	252.4	0.027
225.0	0.051	234.2	0.042	243.4	0.034	252.6	0.028
225.2	0.051	234.4	0.042	243.6	0.034	252.8	0.027
225.4	0.051	234.6	0.042	243.8	0.034	253.0	0.027
225.6	0.051	234.8	0.042	244.0	0.033	253.2	0.027
225.8	0.051	235.0	0.042	244.2	0.033	253.4	0.027
226.0	0.051	235.2	0.041	244.4	0.033	253.6	0.028
226.2	0.051	235.4	0.041	244.6	0.033	253.8	0.027
226.4	0.051	235.6	0.041	244.8	0.033	254.0	0.027
226.6	0.051	235.8	0.041	245.0	0.033	254.2	0.027
226.8	0.051	236.0	0.041	245.2	0.033	254.4	0.027
227.0	0.050	236.2	0.041	245.4	0.033	254.6	0.027
227.2	0.050	236.4	0.041	245.6	0.033	254.8	0.026
227.4	0.050	236.6	0.041	245.8	0.033	255.0	0.027
227.6	0.050	236.8	0.041	246.0	0.032	255.2	0.026
227.8	0.050	237.0	0.040	246.2	0.033	255.4	0.026
228.0	0.048	237.2	0.040	246.4	0.032	255.6	0.026
228.2	0.048	237.4	0.040	246.6	0.032	255.8	0.026
228.4	0.049	237.6	0.039	246.8	0.032	256.0	0.026
228.6	0.048	237.8	0.039	247.0	0.031	256.2	0.026
228.8	0.048	238.0	0.039	247.2	0.031	256.4	0.026
229.0	0.048	238.2	0.038	247.4	0.031	256.6	0.026
229.2	0.048	238.4	0.038	247.6	0.031	256.8	0.026
229.4	0.048	238.6	0.038	247.8	0.031	257.0	0.024
229.6	0.048	238.8	0.038	248.0	0.030	257.2	0.026
229.8	0.048	239.0	0.038	248.2	0.030	257.4	0.024

Time (sec)	Displt. (ft)
257.6	0.024
257.8	0.024
258.0	0.024
258.2	0.025
258.4	0.024
258.6	0.024
258.8	0.024
259.0	0.024
259.2	0.024
259.4	0.024
259.6	0.024
259.8	0.022
260.0	0.021
260.2	0.021
260.4	0.021
260.6	0.020
260.8	0.020
261.0	0.020
261.2	0.019
261.4	0.018
261.6	0.018
261.8	0.018
262.0	0.017
262.2	0.017
262.4	0.018
262.6	0.016
262.8	0.015
263.0	0.015
263.2	0.014
263.4	0.014
263.6	0.014
263.8	0.013
264.0	0.012
264.2	0.012
264.4	0.011
264.6	0.011
264.8	0.011
265.0	0.011
265.2	0.011
265.4	0.011
265.6	0.011
265.8	0.010
266.0	0.009
266.2	0.008
266.4	0.008
266.6	0.007
266.8	0.008
267.0	0.008
267.2	0.008
267.4	0.008
267.6	0.008
267.8	0.008
268.0	0.007
268.2	0.007
268.4	0.005
268.6	0.005
268.8	0.005
269.0	0.005
269.2	0.004
269.4	0.005
269.6	0.005
269.8	0.005
270.0	0.005
270.2	0.005
270.4	0.005
270.6	0.005
270.8	0.005
271.0	0.004
271.2	0.005
271.4	0.005
271.6	0.004
271.8	0.005
272.0	0.005
272.2	0.005
272.4	0.005
272.6	0.004
272.8	0.003
273.0	0.004
273.2	0.002
273.4	0.002
273.6	0.002
273.8	0.002
274.0	0.001
274.2	0.001
274.4	0.001
274.6	0.001
274.8	0.001
275.0	0.001
275.2	0.000
275.4	0.001
275.6	0.000



DATA SET:
POSTVAC2.AQT
11/03/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

PROJECT DATA:
test date: 10/17/95
test well: 31550 INJECTION WELL

TEST DATA:
H0 = 10. ft
rc = 0.5 ft
rw = 0.8333 ft
L = 20. ft
b = 135. ft
H = 31. ft

PARAMETER ESTIMATES:
K = 0.0004316 ft/sec
y0 = 4.646 ft

AQTESOLV

00022878

7396

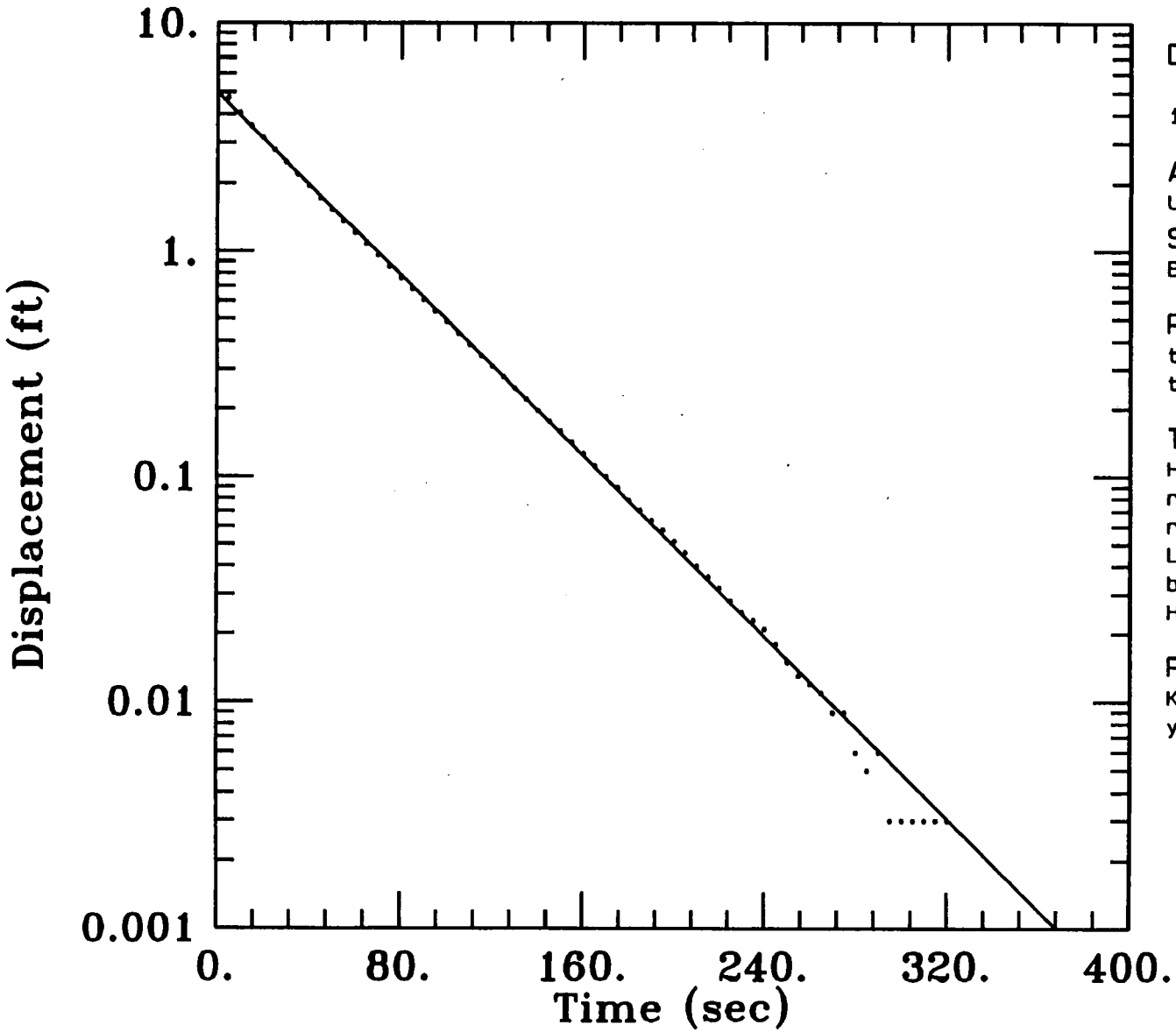
Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
0.0	0.000	23.0	3.080	46.0	1.790	69.0	1.050
0.5	1.800	23.5	3.050	46.5	1.770	69.5	1.040
1.0	4.100	24.0	3.010	47.0	1.750	70.0	1.030
1.5	5.320	24.5	2.970	47.5	1.730	70.5	1.020
2.0	5.310	25.0	2.940	48.0	1.710	71.0	1.000
2.5	5.220	25.5	2.910	48.5	1.690	71.5	0.990
3.0	5.130	26.0	2.860	49.0	1.670	72.0	0.980
3.5	5.050	26.5	2.810	49.5	1.650	72.5	0.970
4.0	4.970	27.0	2.800	50.0	1.630	73.0	0.960
4.5	4.900	27.5	2.780	50.5	1.610	73.5	0.950
5.0	4.830	28.0	2.740	51.0	1.590	74.0	0.940
5.5	4.760	28.5	2.710	51.5	1.570	74.5	0.930
6.0	4.690	29.0	2.680	52.0	1.550	75.0	0.920
6.5	4.630	29.5	2.650	52.5	1.530	75.5	0.910
7.0	4.570	30.0	2.610	53.0	1.520	76.0	0.900
7.5	4.510	30.5	2.580	53.5	1.500	76.5	0.890
8.0	4.450	31.0	2.550	54.0	1.480	77.0	0.880
8.5	4.400	31.5	2.520	54.5	1.470	77.5	0.870
9.0	4.340	32.0	2.490	55.0	1.450	78.0	0.860
9.5	4.290	32.5	2.460	55.5	1.430	78.5	0.850
10.0	4.240	33.0	2.430	56.0	1.410	79.0	0.840
10.5	4.180	33.5	2.410	56.5	1.400	79.5	0.830
11.0	4.130	34.0	2.380	57.0	1.380	80.0	0.820
11.5	4.080	34.5	2.350	57.5	1.370	80.5	0.810
12.0	4.030	35.0	2.320	58.0	1.350	81.0	0.800
12.5	3.980	35.5	2.290	58.5	1.340	81.5	0.790
13.0	3.940	36.0	2.270	59.0	1.320	82.0	0.780
13.5	3.890	36.5	2.240	59.5	1.310	82.5	0.780
14.0	3.840	37.0	2.210	60.0	1.290	83.0	0.770
14.5	3.800	37.5	2.190	60.5	1.280	83.5	0.760
15.0	3.750	38.0	2.160	61.0	1.260	84.0	0.750
15.5	3.700	38.5	2.140	61.5	1.250	84.5	0.740
16.0	3.660	39.0	2.110	62.0	1.230	85.0	0.730
16.5	3.610	39.5	2.080	62.5	1.220	85.5	0.730
17.0	3.570	40.0	2.060	63.0	1.210	86.0	0.720
17.5	3.520	40.5	2.040	63.5	1.190	86.5	0.710
18.0	3.480	41.0	2.010	64.0	1.180	87.0	0.700
18.5	3.440	41.5	1.990	64.5	1.160	87.5	0.690
19.0	3.400	42.0	1.970	65.0	1.150	88.0	0.690
19.5	3.350	42.5	1.940	65.5	1.140	88.5	0.680
20.0	3.310	43.0	1.920	66.0	1.130	89.0	0.670
20.5	3.270	43.5	1.900	66.5	1.110	89.5	0.660
21.0	3.230	44.0	1.870	67.0	1.100	90.0	0.660
21.5	3.200	44.5	1.850	67.5	1.090	90.5	0.650
22.0	3.160	45.0	1.830	68.0	1.070	91.0	0.640
22.5	3.120	45.5	1.810	68.5	1.060	91.5	0.640

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
92.0	0.630	115.0	0.380	138.0	0.230	161.0	0.140
92.5	0.620	115.5	0.380	138.5	0.230	161.5	0.140
93.0	0.620	116.0	0.370	139.0	0.230	162.0	0.140
93.5	0.610	116.5	0.370	139.5	0.230	162.5	0.140
94.0	0.600	117.0	0.370	140.0	0.230	163.0	0.140
94.5	0.600	117.5	0.360	140.5	0.220	163.5	0.130
95.0	0.590	118.0	0.360	141.0	0.220	164.0	0.130
95.5	0.580	118.5	0.350	141.5	0.220	164.5	0.130
96.0	0.580	119.0	0.350	142.0	0.220	165.0	0.130
96.5	0.570	119.5	0.350	142.5	0.210	165.5	0.130
97.0	0.560	120.0	0.350	143.0	0.210	166.0	0.130
97.5	0.560	120.5	0.340	143.5	0.210	166.5	0.130
98.0	0.550	121.0	0.340	144.0	0.210	167.0	0.130
98.5	0.550	121.5	0.340	144.5	0.200	167.5	0.120
99.0	0.540	122.0	0.330	145.0	0.200	168.0	0.120
99.5	0.530	122.5	0.330	145.5	0.200	168.5	0.120
100.0	0.530	123.0	0.320	146.0	0.200	169.0	0.120
100.5	0.520	123.5	0.320	146.5	0.200	169.5	0.120
101.0	0.520	124.0	0.320	147.0	0.190	170.0	0.120
101.5	0.510	124.5	0.310	147.5	0.190	170.5	0.120
102.0	0.510	125.0	0.310	148.0	0.190	171.0	0.110
102.5	0.500	125.5	0.310	148.5	0.190	171.5	0.110
103.0	0.490	126.0	0.300	149.0	0.190	172.0	0.110
103.5	0.490	126.5	0.300	149.5	0.180	172.5	0.110
104.0	0.480	127.0	0.300	150.0	0.180	173.0	0.110
104.5	0.480	127.5	0.290	150.5	0.180	173.5	0.110
105.0	0.470	128.0	0.290	151.0	0.180	174.0	0.110
105.5	0.470	128.5	0.290	151.5	0.180	174.5	0.110
106.0	0.460	129.0	0.280	152.0	0.180	175.0	0.110
106.5	0.460	129.5	0.280	152.5	0.170	175.5	0.100
107.0	0.450	130.0	0.280	153.0	0.170	176.0	0.100
107.5	0.450	130.5	0.270	153.5	0.170	176.5	0.100
108.0	0.440	131.0	0.270	154.0	0.170	177.0	0.100
108.5	0.440	131.5	0.270	154.5	0.170	177.5	0.100
109.0	0.440	132.0	0.270	155.0	0.160	178.0	0.100
109.5	0.430	132.5	0.260	155.5	0.160	178.5	0.100
110.0	0.430	133.0	0.260	156.0	0.160	179.0	0.100
110.5	0.420	133.5	0.260	156.5	0.160	179.5	0.100
111.0	0.420	134.0	0.260	157.0	0.160	180.0	0.090
111.5	0.410	134.5	0.250	157.5	0.160	180.5	0.090
112.0	0.410	135.0	0.250	158.0	0.150	181.0	0.090
112.5	0.400	135.5	0.250	158.5	0.150	181.5	0.090
113.0	0.400	136.0	0.250	159.0	0.150	182.0	0.090
113.5	0.400	136.5	0.240	159.5	0.150	182.5	0.090
114.0	0.390	137.0	0.240	160.0	0.150	183.0	0.090
114.5	0.390	137.5	0.240	160.5	0.140	183.5	0.090

Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)	Time (sec)	Displt. (ft)
184.0	0.090	207.0	0.050	230.0	0.040	253.0	0.020
184.5	0.090	207.5	0.050	230.5	0.040	253.5	0.020
185.0	0.080	208.0	0.050	231.0	0.040	254.0	0.020
185.5	0.080	208.5	0.050	231.5	0.030	254.5	0.020
186.0	0.080	209.0	0.050	232.0	0.030	255.0	0.020
186.5	0.080	209.5	0.050	232.5	0.030	255.5	0.020
187.0	0.080	210.0	0.050	233.0	0.030	256.0	0.020
187.5	0.080	210.5	0.050	233.5	0.030	256.5	0.020
188.0	0.080	211.0	0.050	234.0	0.030	257.0	0.020
188.5	0.080	211.5	0.050	234.5	0.030	257.5	0.020
189.0	0.080	212.0	0.050	235.0	0.030	258.0	0.020
189.5	0.080	212.5	0.050	235.5	0.030	258.5	0.020
190.0	0.080	213.0	0.050	236.0	0.030	259.0	0.020
190.5	0.080	213.5	0.050	236.5	0.030	259.5	0.020
191.0	0.070	214.0	0.050	237.0	0.030	260.0	0.020
191.5	0.070	214.5	0.050	237.5	0.030	260.5	0.020
192.0	0.070	215.0	0.050	238.0	0.030	261.0	0.020
192.5	0.070	215.5	0.050	238.5	0.030	261.5	0.020
193.0	0.070	216.0	0.050	239.0	0.030	262.0	0.020
193.5	0.070	216.5	0.050	239.5	0.030	262.5	0.020
194.0	0.070	217.0	0.050	240.0	0.030	263.0	0.020
194.5	0.070	217.5	0.050	240.5	0.030	263.5	0.020
195.0	0.070	218.0	0.050	241.0	0.030	264.0	0.020
195.5	0.070	218.5	0.040	241.5	0.030	264.5	0.020
196.0	0.070	219.0	0.040	242.0	0.030	265.0	0.020
196.5	0.070	219.5	0.040	242.5	0.030	265.5	0.020
197.0	0.070	220.0	0.040	243.0	0.030	266.0	0.020
197.5	0.070	220.5	0.040	243.5	0.030	266.5	0.020
198.0	0.070	221.0	0.040	244.0	0.030	267.0	0.020
198.5	0.060	221.5	0.040	244.5	0.030	267.5	0.020
199.0	0.060	222.0	0.040	245.0	0.030	268.0	0.020
199.5	0.060	222.5	0.040	245.5	0.030	268.5	0.020
200.0	0.060	223.0	0.040	246.0	0.030	269.0	0.020
200.5	0.060	223.5	0.040	246.5	0.030	269.5	0.020
201.0	0.060	224.0	0.040	247.0	0.030	270.0	0.020
201.5	0.060	224.5	0.040	247.5	0.030	270.5	0.020
202.0	0.060	225.0	0.040	248.0	0.030	271.0	0.020
202.5	0.060	225.5	0.040	248.5	0.030	271.5	0.020
203.0	0.060	226.0	0.040	249.0	0.020	272.0	0.020
203.5	0.060	226.5	0.040	249.5	0.020	272.5	0.020
204.0	0.060	227.0	0.040	250.0	0.020	273.0	0.020
204.5	0.060	227.5	0.040	250.5	0.020	273.5	0.020
205.0	0.060	228.0	0.040	251.0	0.020	274.0	0.020
205.5	0.060	228.5	0.040	251.5	0.020	274.5	0.020
206.0	0.060	229.0	0.040	252.0	0.020	275.0	0.020
206.5	0.060	229.5	0.040	252.5	0.020	275.5	0.020

000281

Time (sec)	Displt. (ft)
276.0	0.020
276.5	0.020
277.0	0.020
277.5	0.020
278.0	0.020
278.5	0.020
279.0	0.010
279.5	0.010
280.0	0.010
280.5	0.010
281.0	0.010
281.5	0.010
282.0	0.010
282.5	0.010
283.0	0.010
283.5	0.010
284.0	0.010
284.5	0.010
285.0	0.010
285.5	0.010
286.0	0.010
286.5	0.010
287.0	0.010
287.5	0.010
288.0	0.010
288.5	0.010
289.0	0.010
289.5	0.010
290.0	0.010



DATA SET:

11/03/95

AQUIFER MODEL:
Unconfined

SOLUTION METHOD:
Bouwer-Rice

PROJECT DATA:
test date: 10/17/95
test well: 31550 INJECTION WELL

TEST DATA:
H0 = 10. ft
rc = 0.5 ft
rw = 0.8333 ft
L = 20. ft
b = 135. ft
H = 31. ft

PARAMETER ESTIMATES:
K = 0.0004703 ft/sec
y0 = 4.995 ft

AQTESOLV

000283

Time (sec)	Displt. (ft)
5.0	4.769
10.0	4.084
15.0	3.588
20.0	3.174
25.0	2.813
30.0	2.495
35.0	2.209
40.0	1.959
45.0	1.736
50.0	1.542
55.0	1.369
60.0	1.217
65.0	1.082
70.0	0.963
75.0	0.859
80.0	0.764
85.0	0.683
90.0	0.610
95.0	0.543
100.0	0.487
105.0	0.435
110.0	0.387
115.0	0.347
120.0	0.310
125.0	0.278
130.0	0.248
135.0	0.221
140.0	0.197
145.0	0.176
150.0	0.159
155.0	0.142
160.0	0.127
165.0	0.112
170.0	0.100
175.0	0.090
180.0	0.079
185.0	0.071
190.0	0.064
195.0	0.058
200.0	0.052
205.0	0.046
210.0	0.040
215.0	0.036
220.0	0.032
225.0	0.028
230.0	0.025

Time (sec)	Displt. (ft)
235.0	0.023
240.0	0.021
245.0	0.018
250.0	0.015
255.0	0.013
260.0	0.012
265.0	0.011
270.0	0.009
275.0	0.009
280.0	0.006
285.0	0.005
290.0	0.006
295.0	0.003
300.0	0.003
305.0	0.003
310.0	0.003
315.0	0.003
320.0	0.003
325.0	0.000
330.0	0.000
335.0	0.000
340.0	0.000
345.0	0.000