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**ONONDAGA LAKE PRE-DESIGN INVESTIGATION:  
WASTEBED 13 SETTLEMENT PILOT STUDY  
MONITORING DATA – YEAR 3  
Onondaga County, New York**

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**JULY 2009**

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## **SECTION 1**

### **PROJECT BACKGROUND**

#### **1.1 INTRODUCTION**

This *Onondaga Lake Pre-Design Investigation: Wastebed 13 Settlement Pilot Study Monitoring Data – Year 3 (Year-3 Data Report)* presents the third year of monitoring data (i.e., November 2007 through October 2008) for the Phase I Pre-Design Investigation (PDI) Wastebed 13 Settlement Pilot Study (Pilot Study). This monitoring was performed by Parsons on behalf of Honeywell International, Inc. (Honeywell) to support future Onondaga Lake remediation activities associated with requirements of the Consent Decree (United States District Court, Northern District of New York, 2007) (89-CV-815) that Honeywell entered into with the New York State Department of Environmental Conservation (NYSDEC). This monitoring was performed in accordance with the schedule proposed in the *Onondaga Lake Pre-Design Investigation: Wastebed 13 Settlement Pilot Study Monitoring Data – Year 2 (Year-2 Data Report)* prepared by Parsons (2008a).

A major component of the NYSDEC's and United States Environmental Protection Agency's (USEPA) selected remedy for Onondaga Lake, as specified in the Record of Decision for the Onondaga Lake Bottom Subsite of the Onondaga Lake Superfund Site (NYSDEC and USEPA, 2005), includes the removal (i.e., dredging) and onsite consolidation of the majority of the removed sediments. Therefore, an onsite sediment consolidation area (SCA) is required. As discussed and concluded in the *Onondaga Lake SCA Siting Evaluation* (Parsons, 2006), Wastebed 13 is the recommended SCA location based on an evaluation of access considerations, capacity, current and future site use, geotechnical considerations, and potential community impacts. Several pre-design investigation activities have been performed at Wastebed 13, including the Pilot Study. Following this brief introduction, this section provides the site and Pilot Study background information, as well as the general organization for the remainder of this report.

#### **1.2 SITE AND PILOT STUDY BACKGROUND INFORMATION**

As indicated previously, the Pilot Study is located on Wastebed 13, which was originally designed as a settling basin for the disposal of Solvay waste, a by-product of sodium carbonate (soda ash) production via the Solvay process (i.e., process by which soda ash is formed from salt, limestone, carbon dioxide, and ammonia). Solvay waste is a combination of process residuals, unreacted material, and mineral salts that was deposited in a slurry. Solvay waste was produced by Honeywell's predecessor Allied Chemical between 1881 and 1986, and Wastebed 13 received the material from 1973 to 1985.

Wastebed 13 is located in the Town of Camillus, Onondaga County, New York (Figure 1.1). Wastebed 13 occupies approximately 163 acres and is bordered to the north by Ninemile Creek

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and CSX Railroad tracks; to the west by an Onondaga County Garage property, a former gravel excavation owned by Honeywell, and a few residential properties; and to the east and south by Wastebeds 12 and 14, respectively (Figure 1.2).

Additional background information, including site history and details regarding previous investigations, is available in the *Onondaga Lake Pre-Design Investigation: Wastebed 13 Settlement Pilot Study Data Summary Report (Summary Report)* prepared by Parsons and Geosyntec (2008b). As discussed in this report, the purpose of the Pilot Study was to evaluate potential Solvay waste behavior during the anticipated SCA design phases (i.e., construction, operation, and closure). Therefore, the Pilot Study included cone penetrometer testing, geotechnical sampling, laboratory testing, instrument installation, test plot construction, and monitoring. The monitoring of extensometers, 30-ft grid, and settlement profilers was completed during the first year of monitoring, and the corresponding data were provided in the *Summary Report* (Parsons and Geosyntec, 2008b), which also contains detailed descriptions of the pre-construction, construction, and monitoring activities associated with the Pilot Study. The monitoring of inclinometers was concluded at the end of the second-year monitoring as described in the *Year-2 Data Report* (Parsons, 2008a).

### **1.3 REPORT ORGANIZATION**

Following this Introductory section, Section 2 summarizes the data (i.e., the piezometer and settlement plate data) collected during the third year of monitoring. Section 3 contains references. In addition, Appendix A provides the field piezometer data.

## **SECTION 2**

### **MONITORING**

#### **2.1 OVERVIEW**

This section summarizes the piezometer and settlement plate data collected during the third year of Pilot Study monitoring. In addition, the monitoring schedule for next year is proposed. The Pilot Study location and instrumentation layout are provided in Figures 2.1 and 2.2, respectively. As described in Section 4.4 of the *Summary Report* (Parsons and Geosyntec, 2008b), the inclinometer readings showed some bending during fill placement due to Solvay waste settlement (i.e., not lateral movement); therefore, inclinometer monitoring was not included in future monitoring activities (see Section 2.5 of *Year-2 Data Report* [Parsons, 2008a]).

#### **2.2 PIEZOMETERS**

The piezometers were measured approximately every three months from November 2007 through October 2008, as proposed in the *Year-2 Data Report* (Parsons, 2008a). One additional measurement was taken in December 2007 to coincide with monitoring of the Phase II PDI piezometers. The measurements from those piezometers are provided as a separate submittal on a quarterly basis.

The Pilot Study piezometer data are provided in Appendix A. Figures 2.3 through 2.7 show the changes in water level with time for the different piezometer depths (with respect to baseline water levels). Precipitation data are also included on these figures. The precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport). For informational purposes, Appendix A and the figures include all data collected from September 2005 (i.e., the beginning of the Pilot Study) through the last monitoring event in Year 3 (i.e., September 2008).

As indicated in the *Summary Report* (Parsons and Geosyntec, 2008b), O'Brien and Gere installed three standpipe piezometers (i.e., BA-1S, PZ-01A, and PZ-01B) in 2004 in Wastebed 13. The approximate depths for BA-1S, PZ-01A, and PZ-01B are 20 ft, 47 ft, and 61.5 ft below the top of casing, respectively. Because of the proximity of these piezometers to the test plot, they have been monitored at the same frequency as the Pilot Study piezometers to obtain background water level data. These data are also provided in Appendix A.

#### **2.3 SETTLEMENT PLATES**

The settlement plates were measured approximately every three months during the third year of Pilot Study monitoring, as proposed in the *Year-2 Data Report* (Parsons, 2008a). The settlement plate data are summarized in Table 2.1 and Figure 2.8. For informational purposes,

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all data collected from September 2005 (i.e., the beginning of the Pilot Study) through September 2008 (i.e., the last monitoring event in Year 3) are included in Table 2.1 and Figure 2.8.

## **2.4 FUTURE MONITORING**

The last monitoring event during the third year was completed in September 2008, and the third year of monitoring ended in October 2008. Because the Pilot Study is still providing useful information, the following additional monitoring activities, which are consistent with Year 3, are proposed between October 2008 and September 2009:

- Piezometer measurements every three months (i.e., quarterly). This monitoring will occur concurrently with monitoring of the Phase II piezometers; and
- Settlement plate measurements every three months (i.e., quarterly).

The data associated with the piezometers and settlement plates installed as part of Phase I, along with the data associated with the piezometers installed as part of Phase II, will be submitted to the NYSDEC on a quarterly basis. Therefore, a summary report will not be submitted at the end of the Year 4 monitoring period.

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## **SECTION 3**

### **REFERENCES**

NYSDEC and USEPA. 2005. *Record of Decision Onondaga Lake Bottom Subsite of the Onondaga Lake Superfund Site*. Town of Geddes and Salina, Villages of Solvay and Liverpool, and City of Syracuse, Onondaga County, New York.

Parsons. 2006. *Onondaga Lake Sediment Consolidation Area (SCA) Siting Evaluation*. Onondaga County, New York.

Parsons. 2008a. *Onondaga Lake Pre-Design Investigation: Wastebed 13 Settlement Pilot Study Monitoring Data – Year 2*. Onondaga County, New York.

Parsons in association with Geosyntec. 2008b. *Onondaga Lake Pre-Design Investigation: Wastebed 13 Settlement Pilot Study Data Summary Report*. Onondaga County, New York.

United States District Court, Northern District of New York. 2006. State of New York and Denise M. Sheehan against Honeywell International, Inc. Consent Decree between the State of New York and Honeywell International, Inc. Senior Judge Scullin. Dated October 11, 2006. Filed January 4, 2007.

**TABLES**

**Table 2.1**  
**Settlement Plate Data Summary**

Date	10/7/2005	10/25/2005	11/2/2005	11/21/2005	12/6/2005	12/23/2005	1/4/2006	1/19/2006	2/1/2006	2/16/2006	3/2/2006	3/8/2006	3/16/2006
Time Elapsed (days)	0	18	26	45	60	77	89	104	117	132	146	152	160
SP-1	0	-18.68	NA	-26.96	-28.21	-30.12	-30.62	-31.12	-31.37	-31.62	-31.87	-32.24	
SP-2	0	-18.80	NA	-26.56	-28.06	-28.97	-29.47	-29.84	-29.97	-30.22	-30.22	-30.60	-30.72
SP-3	0	-20.48	NA	-26.65	-27.90	-29.56	-29.81	-29.31	-30.56	-30.68	-30.69	-30.94	-31.06
SP-4	0	-16.16	NA	-23.87	-26.12	-27.78	-28.28	-28.66	-28.91	-29.15	-29.16	-29.53	-29.53
SP-5	0	-16.28	NA	-21.69	-22.19	-23.35	-23.60	-23.85	-23.98	-24.10	-24.10	-24.35	-24.35
SP-6	0	-17.36	NA	-23.29	-24.29	-24.95	-25.45	-25.83	-25.95	-26.08	-26.08	-26.45	-26.58
SP-7	0	-11.48	NA	-15.17	-15.67	-16.08	-16.33	-16.58	-16.58	-16.70	-16.83	-17.08	-17.08
SP-8	0	-15.68	NA	-22.39	-23.14	-24.30	-24.80	-25.05	-25.18	-25.42	-25.42	-25.68	-25.80
SP-9	0	-11.36	NA	-14.75	-15.75	-16.66	-17.16	-17.29	-17.41	-17.66	-17.79	-18.04	-18.04
SP-10	0	-14.24	NA	-10.74	-21.99	-23.40	-23.90	-24.15	-24.28	-24.65	-24.52	-24.90	-24.90
SP-11	0	-6.32	NA	-8.57	-9.32	-9.48	-9.48	-9.48	-9.73	-9.86	-9.73	-9.98	-9.98
SP-12	0	-11.12	NA	-15.11	-16.36	-17.02	-17.27	-17.52	-17.52	-17.77	-17.65	-18.02	-18.02
SP-13	0	NA	-0.21	-0.21	-0.46	-0.21	-0.33	-0.46	-0.46	-0.46	-0.58	-0.46	-0.33
SP-14	0	NA	-0.10	-0.10	-0.35	-0.10	-0.23	-0.35	-0.23	-0.10	-0.35	-0.23	-0.23
SP-15	0	NA	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.16	-0.29	-0.16	-0.03
SP-16	0	-12.80	NA	-17.11	-18.36	-18.77	-19.02	-19.27	-19.27	-19.39	-19.39	-19.77	-19.77
SP-17 (buried)	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SP-18	0	NA	-0.47	-0.47	-0.47	-0.47	-0.59	-0.72	-0.72	-0.59	-0.60	-0.60	-0.72
SP-19	0	NA	-0.12	-0.12	-0.12	0.13	-0.24	-0.24	-0.12	-0.12	-0.12	-0.12	-0.12
SP-20	0	-14.96	NA	-19.58	-20.83	-21.74	-21.99	-22.24	-22.24	-22.49	-22.49	-22.74	-22.74

Date	3/31/2006	4/13/2006	4/26/2006	5/11/2006	5/25/2006	6/8/2006	6/22/2006	7/6/2006	7/20/2006	8/3/2006	8/17/2006	8/31/2006	9/14/2006
Time Elapsed (days)	175	188	201	216	230	244	258	272	286	300	314	328	342
SP-1	-32.25	-32.50	-32.62	-32.75	-33.25	-33.37	-33.62	-33.87	-34.12	-34.24	-34.50	-34.75	-34.87
SP-2	-31.10	-31.10	-31.22	-31.35	-31.85	-31.85	-32.22	-32.47	-32.84	-32.97	-33.10	-33.35	-33.47
SP-3	-31.19	-31.43	-31.56	-31.56	-32.06	-32.06	-32.19	-32.68	-32.68	-32.81	-32.94	-33.31	-33.31
SP-4	-29.91	-30.16	-30.28	-30.41	-30.78	-30.91	-31.16	-31.53	-31.78	-31.91	-32.03	-32.28	-32.41
SP-5	-24.73	-24.73	-24.85	-24.85	-25.35	-25.35	-25.48	-25.85	-25.97	-26.10	-26.35	-26.48	-26.48
SP-6	-26.95	-26.95	-27.08	-27.20	-27.70	-27.70	-27.95	-28.20	-28.83	-28.83	-29.08	-29.20	-29.20
SP-7	-17.08	-17.20	-17.33	-17.33	-17.70	-17.78	-17.83	-18.08	-17.95	-18.21	-18.33	-18.58	-18.58
SP-8	-26.18	-26.17	-26.42	-26.55	-26.80	-26.80	-27.18	-27.43	-27.43	-27.67	-27.80	-28.05	-28.05
SP-9	-18.29	-18.29	-18.53	-18.66	-19.04	-19.04	-19.29	-19.54	-19.54	-19.66	-20.04	-20.16	-20.16
SP-10	-25.28	-25.40	-25.52	-25.65	-26.15	-26.15	-26.65	-26.77	-27.15	-27.28	-27.53	-27.65	-27.77
SP-11	-10.11	-10.11	-10.23	-10.23	-10.61	-10.48	-10.48	-10.86	-10.86	-10.98	-11.11	-11.36	-11.36
SP-12	-18.40	-18.40	-18.52	-18.65	-19.27	-19.15	-19.39	-19.64	-20.27	-20.27	-20.40	-20.65	-20.65
SP-13	-0.46	-0.46	-0.46	-0.46	-0.58	-0.46	-0.46	-0.58	-0.71	-0.58	-0.46	-0.71	-0.71
SP-14	-0.10	-0.10	-0.10	-0.10	-0.23	0.02	0.02	-0.10	0.03	0.02	0.15	0.03	0.03
SP-15	-0.16	-0.04	-0.03	-0.03	-0.16	0.09	0.21	0.09	0.09	0.21	0.22	0.09	0.09
SP-16	-19.90	-19.90	-20.02	-20.02	-20.40	-20.39	-20.52	-20.89	-20.89	-21.02	-21.15	-21.40	-21.40
SP-17 (buried)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SP-18	-0.72	-0.72	-0.72	-0.72	-0.97	-0.72	-0.72	-0.97	-0.97	-0.97	-0.97	-1.22	-1.22
SP-19	-0.12	-0.12	-0.12	-0.12	-0.25	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12
SP-20	-23.12	-23.11	-23.36	-23.49	-23.86	-23.86	-24.12	-24.37	-24.86	-24.99	-25.12	-25.37	-25.36

**Table 2.1**  
**Settlement Plate Data Summary**

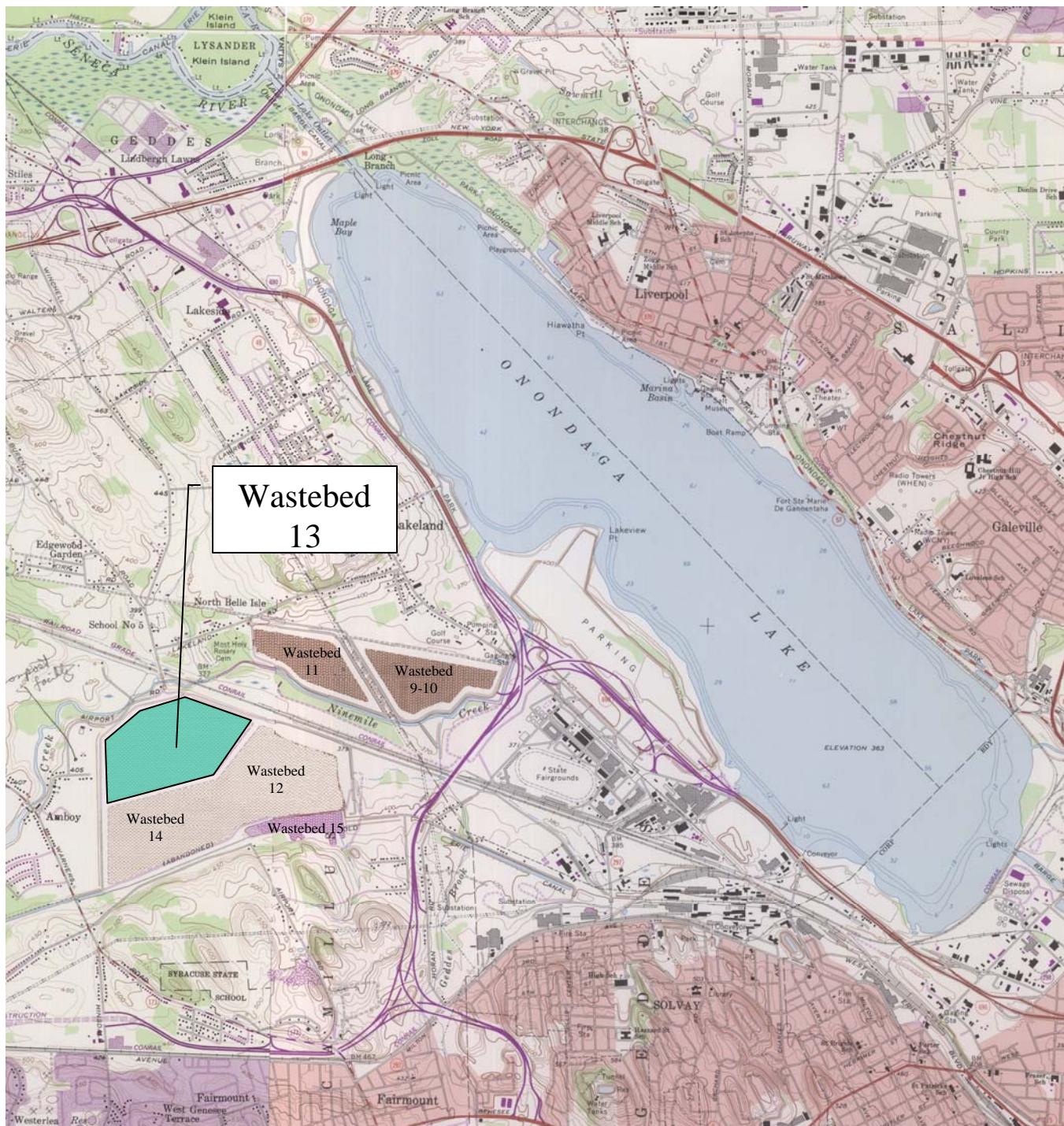
Date	9/28/2006	10/12/2006	10/26/2006	11/8/2006	11/15/2006	12/6/2006	1/11/2007	3/21/2007	5/10/2007	7/12/2007	9/20/2007	11/6/2007	1/10/2008
Time Elapsed (days)	356	370	384	397.0	404	425	461	530	580	643	713	760	825.0
SP-1	-34.99	-35.24	-35.50	-35.50	-35.62	-35.74	-35.74	-36.25	-36.25	-36.12	-36.49	-36.87	-37.12
SP-2	-33.72	-33.85	-34.10	-33.97	-34.10	-34.22	-34.22	-34.72	-34.85	-34.72	-35.10	-35.35	-35.60
SP-3	-33.56	-33.68	-34.06	-33.81	-34.06	-34.18	-34.18	-34.44	-34.56	-34.31	-34.69	-35.06	-35.31
SP-4	-32.66	-32.90	-33.16	-33.16	-33.28	-33.28	-33.41	-33.78	-33.78	-33.78	-34.03	-34.53	-34.78
SP-5	-26.72	-26.85	-26.98	-26.98	-27.10	-27.23	-27.10	-27.48	-27.47	-27.35	-27.48	-27.73	-27.98
SP-6	-29.45	-29.70	-29.83	-29.83	-29.95	-29.95	-29.95	-30.45	-30.58	-30.58	-30.95	-31.08	-31.33
SP-7	-18.70	-18.83	-19.08	-18.95	-19.20	-19.20	-19.33	-19.58	-19.70	-19.45	-19.83	-20.33	-20.46
SP-8	-28.30	-28.55	-28.80	-28.67	-28.80	-29.05	-29.05	-29.43	-29.42	-29.30	-29.68	-30.18	-30.43
SP-9	-20.41	-20.41	-20.66	-20.66	-20.78	-20.91	-20.91	-21.29	-21.29	-21.29	-21.91	-22.29	-22.54
SP-10	-28.03	-28.15	-28.40	-28.40	-28.52	-28.65	-28.65	-29.02	-29.15	-29.15	-29.53	-29.90	-30.03
SP-11	-11.48	-11.61	-11.61	-11.61	-11.73	-11.73	-11.73	-11.98	-12.11	-11.86	-12.11	-12.36	-12.48
SP-12	-20.77	-20.89	-21.15	-21.02	-21.14	-21.27	-21.27	-21.64	-21.77	-21.89	-22.27	-22.40	-22.65
SP-13	-0.71	-0.71	-0.83	-0.83	-0.83	-0.83	-0.83	-0.84	-0.83	-0.58	-0.58	-0.71	-0.83
SP-14	0.15	0.40	-0.10	-0.10	0.02	0.03	0.02	0.02	0.03	0.15	0.15	0.15	0.15
SP-15	0.34	0.34	0.22	0.22	0.22	0.22	0.22	0.46	0.46	0.71	0.84	0.72	0.84
SP-16	-21.52	-21.77	-21.90	-21.77	-22.02	-22.02	-22.02	-22.27	-22.27	-22.15	-22.27	-22.65	-22.77
SP-17 (buried)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SP-18	-1.22	-1.34	-1.47	-1.34	-1.34	-1.34	-1.34	-1.47	-1.47	-1.47	-1.35	-1.47	-1.72
SP-19	-0.12	-0.12	-0.12	-0.12	0.01	0.01	-0.12	-0.12	0.01	0.26	0.38	0.26	0.38
SP-20	-25.49	-25.61	-25.87	-25.87	-25.99	-25.99	-25.99	-26.24	-26.36	-26.36	-26.62	-26.87	-27.12

Date	3/6/2008	6/19/2008	9/11/2008
Time Elapsed (days)	881.0	986.0	1070.0
SP-1	-37.37	-37.12	-37.37
SP-2	-35.84	-35.85	-35.97
SP-3	-35.44	-35.31	-35.56
SP-4	-35.03	-34.78	-35.03
SP-5	-28.22	-27.98	-28.22
SP-6	-31.58	-31.45	-31.83
SP-7	-20.70	-20.58	-20.83
SP-8	-30.55	-30.55	-30.80
SP-9	-22.79	-22.79	-23.16
SP-10	-30.28	-30.28	-30.65
SP-11	-12.61	-12.48	-12.73
SP-12	-22.90	-22.77	-23.14
SP-13	0.42	0.04	-0.21
SP-14	0.28	0.15	0.03
SP-15	1.21	0.97	0.97
SP-16	-22.90	-22.65	-22.77
SP-17 (buried)	NA	NA	NA
SP-18	-1.59	-1.72	-1.85
SP-19	0.38	0.38	0.38
SP-20	-27.37	-27.12	-27.49

**Notes:**

1. Settlement is in inches.
2. NA indicates data are not available.
3. Negative values indicate settlement, and positive values indicate upward movement.
4. SP-17 was buried during fill placement.
5. Data from October 17, 2005 appear to be anomalous because, upon review, it was observed that the data from that time period are inconsistent with field observations and baseline and subsequent readings performed by a licensed surveyor (i.e., a licensed surveyor performed the October 7, 2005 and October 25, 2005 readings). Therefore, these data are not included in this table or Figure 2.8.
6. Although some readings for SP-14, SP-15, and SP-19 are positive (i.e., they indicate upward movement), readings performed by a licensed surveyor on August 31, 2006 are not positive. As shown in Appendix B of the Year-2 Data Report (Parsons, 2008a), all other settlement plate readings agreed relatively well with the licensed surveyor's readings.

**FIGURES**



**Wastebed  
13**



LATITUDE: N 43° 5' 57"  
LONGITUDE: W 76° 10' 41"



SOURCE: U.S.G.S.  
SYRACUSE WEST  
QUADRANGLE

**FIGURE 1.1**

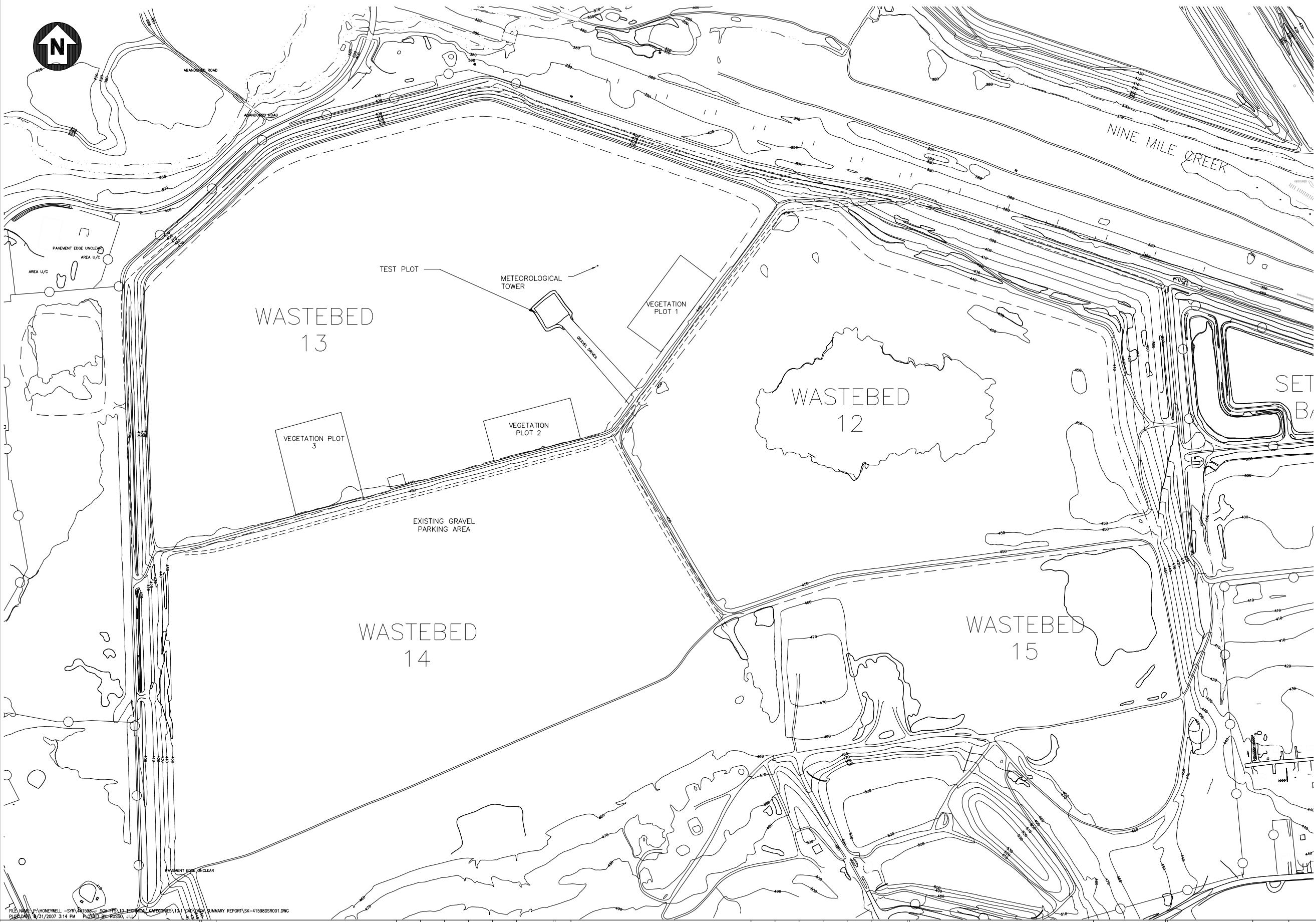
**Honeywell**

Wastebed 13 Settlement Pilot Study  
Data Summary Report  
Onondaga County, New York

## SITE LOCATION MAP

**PARSONS**

290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, NY 13088 PHONE: (315) 451-9560



HALF SIZE  
IF PRINTED 11x17

HONEYWELL - RESTRICTED  
PRINTS OF THIS DRAWING MAY NOT BE  
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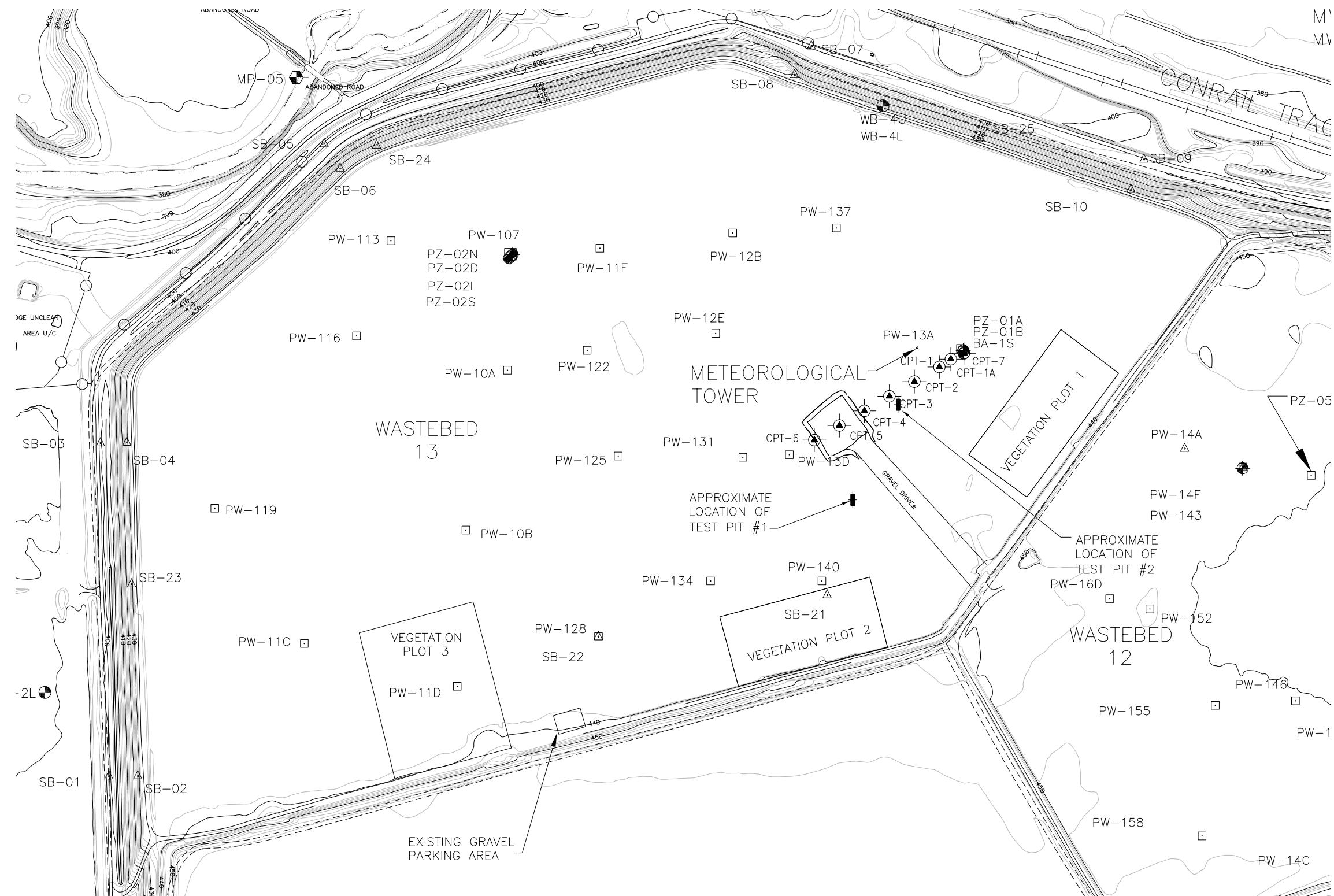
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DATA SUMMARY REPORT											
WASTEBED 13 SETTLEMENT PILOT STUDY											
SYRACUSE, NEW YORK											
WASTEBEDS 12-15											
NO.	REVISION	BY	APPR.	APPR.	APPR.	APPR.	APPR.	APPR.	APPROVALS	DATE	JOB NO. 441598
A	ISSUED FOR REVIEW	JR	-	-	-	-					CONTRACTOR'S JOB NO. _____
											SCALE N/A
									EQUIPMENT P.O. B/M NUMBERS:		

FILE NAME: D:\HONEYWELL\SYR\150P0\COM\10.TECHNICAL\CHANGES\10\CONTRACTOR SUMMARY REPORT\SK-41598SR001.DWG  
FILE DATE: 4/31/2007 3:14 PM  
POSTED BY: HPSO, JLL

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JAR	11/06		
DRAWN	DATE	CHK.	DATE
LOCATION			
FIGURE 1.2	REV	A	



LEGEND:

- CPT LOCATIONS (2004)
- CPT LOCATIONS (2005)
- △ BORING LOCATIONS (2004)
- ◆ PIEZOMETER LOCATIONS (2004)

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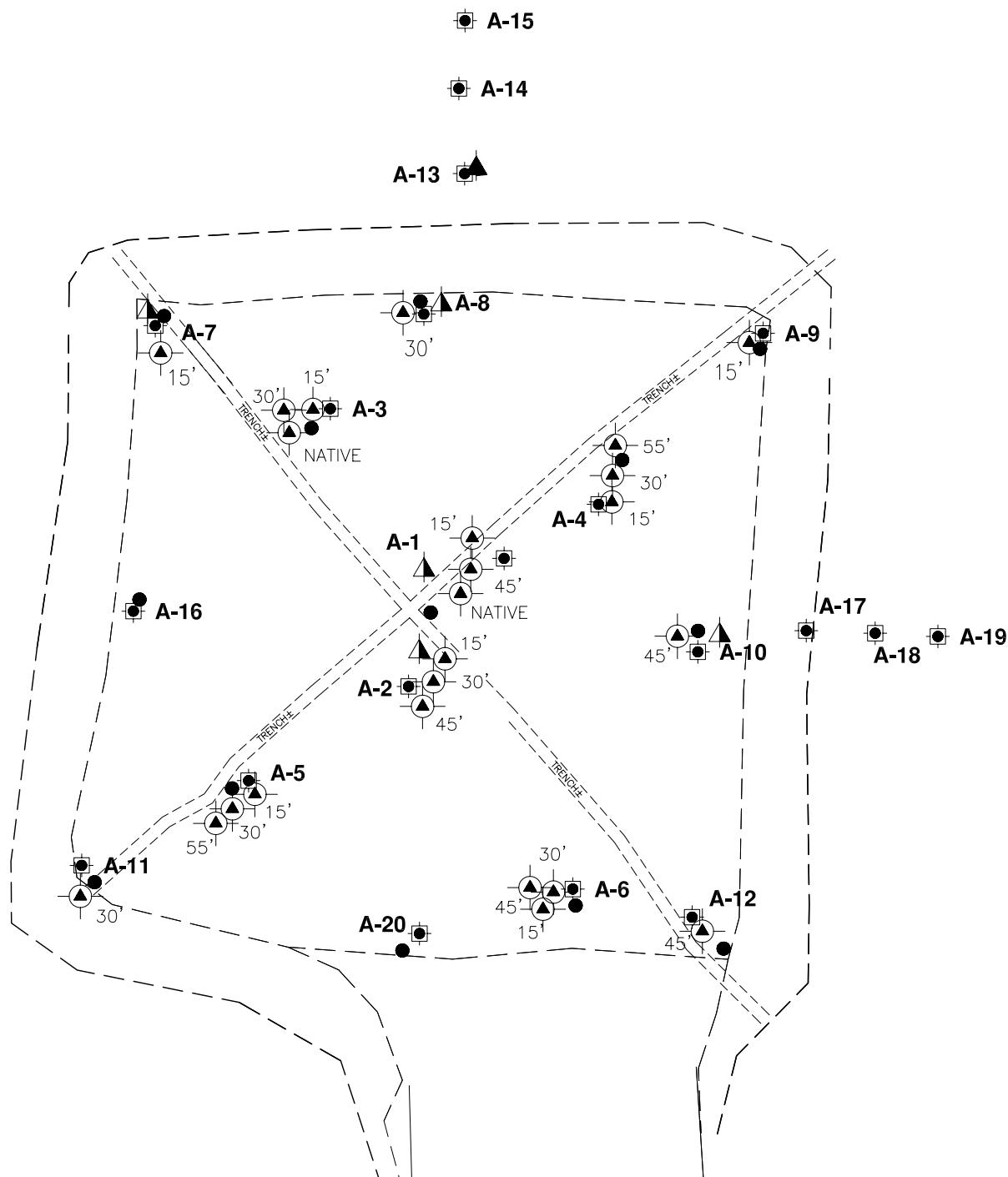
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FILE NAME: P:\HONEYWELL-SYS\441598 - SCA FFS\10 TECHNICAL CATEGORIES\10.1 CAD\DATA SUMMARY REPORT\SK-41598DSR003.DWG  
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DATA SUMMARY REPORT WASTEBED 13 SETTLEMENT PILOT STUDY SYRACUSE, NEW YORK												
WASTEBED 13 SITE PLAN												
JAR	04/05											
DRAWN	DATE	CHK.										
LOCATION			REV	A	FIGURE 2.1							
Honeywell EMS ENGINEERING DEPARTMENT 101 COLUMBIA RD., BOX 2105 MORRISTOWN, NJ 07962												



## LEGEND:

- The legend consists of five entries, each with a unique symbol followed by its corresponding label:

  - A triangle with a circle at the top and a vertical line through it: PIEZOMETER AND DEPTH
  - A triangle with a horizontal line through it: INCLINOMETER/EXTENSOMETER
  - A triangle pointing upwards: INCLINOMETER
  - A dashed horizontal line: SETTLEMENT PROFILER TRENCH
  - A solid circle: APPROXIMATE CPT LOCATION
  - A square with a circle inside: SETTLEMENT PLATE

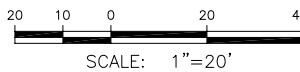
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PLOT DATE: 8/31/2007 3:15 PM PLOTTED BY: RUSSO, JILL

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LOCATION	CPT ID	INCLINOMETER/ EXTENSOMETER ID	PIEZOMETER ID <sup>2</sup>	SETTLEMENT PLATE
A-1	SB915-CPT-5	SB915-INEX-A1	SB915-PZ-A1(15') SB915-PZ-A1(45') SB915-PZ-A1(NATIVE)	SP-1
A-2		SB915-INEX-A2	SB915-PZ-A2(15') SB915-PZ-A2(30') SB915-PZ-A2(45')	SP-2
A-3	SB915-CPT-A3		SB915-PZ-A3(15') SB915-PZ-A3(30') SB915-PZ-A3(NATIVE)	SP-3
A-4	SB915-CPT-A4		SB915-PZ-A4(15') SB915-PZ-A4(30') SB915-PZ-A4(55')	SP-4
A-5	SB915-CPT-A5		SB915-PZ-A5(15') SB915-PZ-A5(30') SB915-PZ-A5(55')	SP-5
A-6	SB915-CPT-A6		SB915-PZ-A6(15') SB915-PZ-A6(30') SB915-PZ-A6(45')	SP-6
A-7	SB915-CPT-A7	SB915-INEX-A7	SB915-PZ-A7(15')	SP-7
A-8	SB915-CPT-A8	SB915-INEX-A8	SB915-PZ-A8(30')	SP-8
A-9	SB915-CPT-A9		SB915-PZ-A9(15')	SP-9
A-10	SB915-CPT-4	SB915-INEX-A10	SB915-PZ-A10(45')	SP-10
A-11	SB915-CPT-A11		SB915-PZ-A11(30')	SP-11
A-12	SB915-CPT-A12		SB915-PZ-A12(45')	SP-12
A-13		SB915-IN-A13 <sup>1</sup>		SP-13
A-14				SP-14
A-15				SP-15
A-16	SB915-CPT-6			SP-16
A-17				SP-17
A-18				SP-18
A-19				SP-19
A-20	SB915-CPT-A20			SP-20

**NOTES:**

1. ONLY AN INCLINOMETER WAS INSTALLED AT THIS LOCATION.
  2. NUMBERS IN PARENTHESSES AFTER IDs INDICATE THE PIEZOMETER TIP INSTALLATION DEPTH (i.e., FEET BELOW INITIAL GROUND SURFACE). NATIVE INDICATES PIEZOMETERS WERE INSTALLED IN THE NATIVE SOIL BENEATH THE SOLVAY WASTE.



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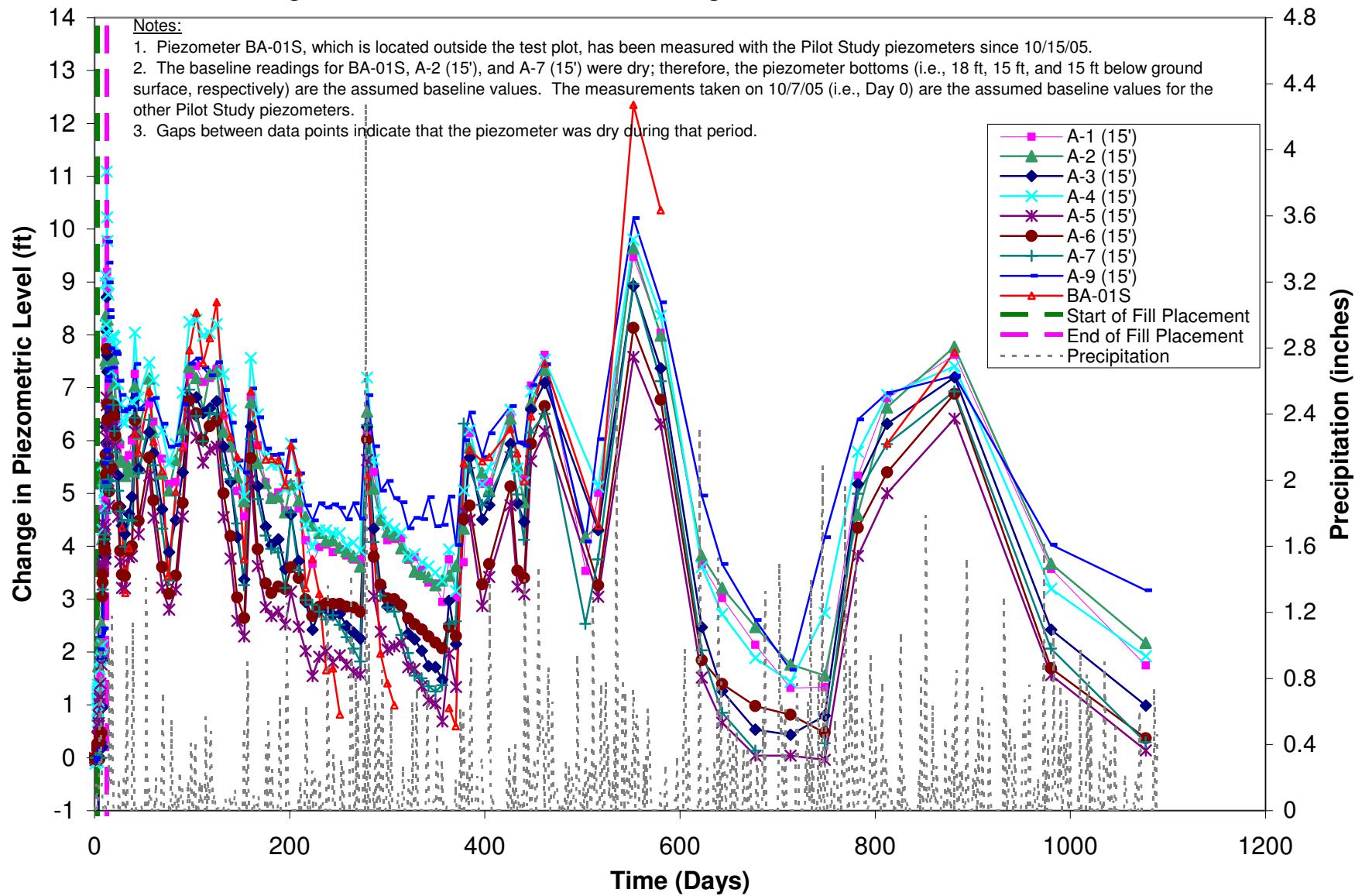
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<b>PARSONS</b>		DATA SUMMARY REPORT		
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560		WASTEBED 13 SEAWATER PILOT STUDY		
		SYRACUSE, NEW YORK		
<b>PILOT STUDY INSTRUMENTATION LAYOUT</b>				
 <b>well</b> DEPARTMENT 2105 07961	JAR	11/06		
	DRAWN	DATE	CHK.	DATE
LOCATION	FIGURE 2.2			REV A

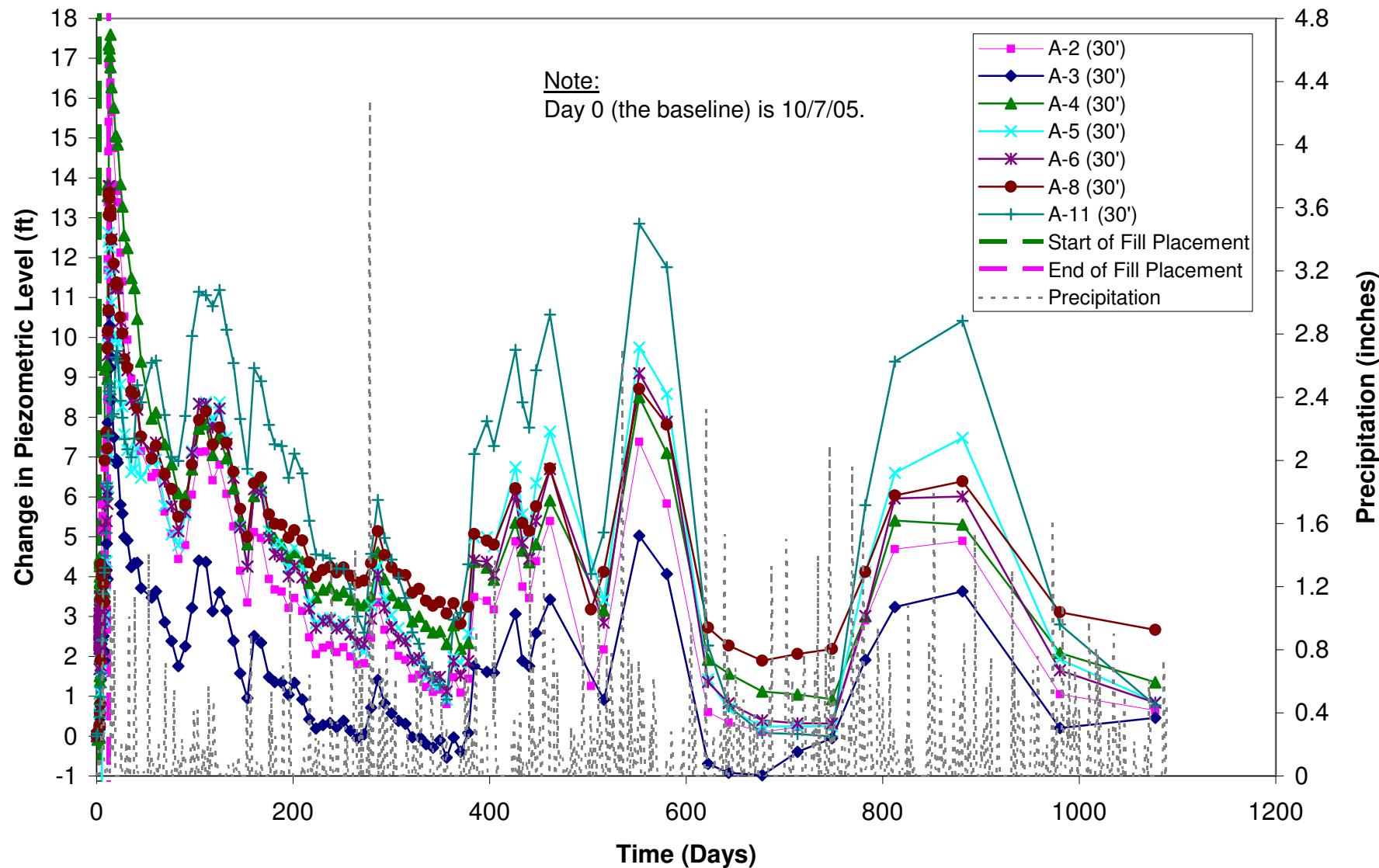
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**Figure 2.3 15-ft Piezometers - Change in Piezometric Level with Time**

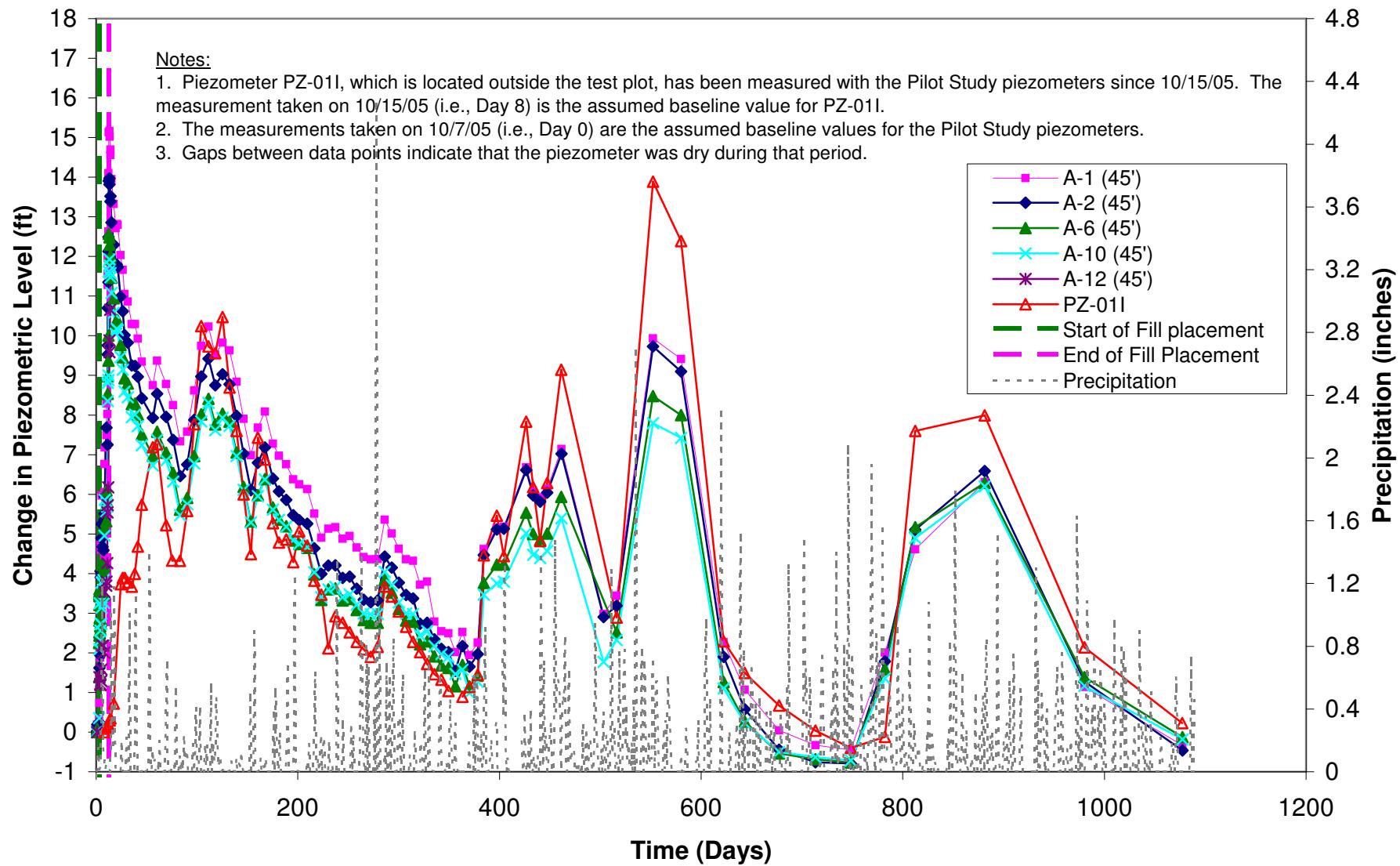


**PARSONS**

**Figure 2.4 30-ft Piezometers - Change in Piezometric Level with Time**

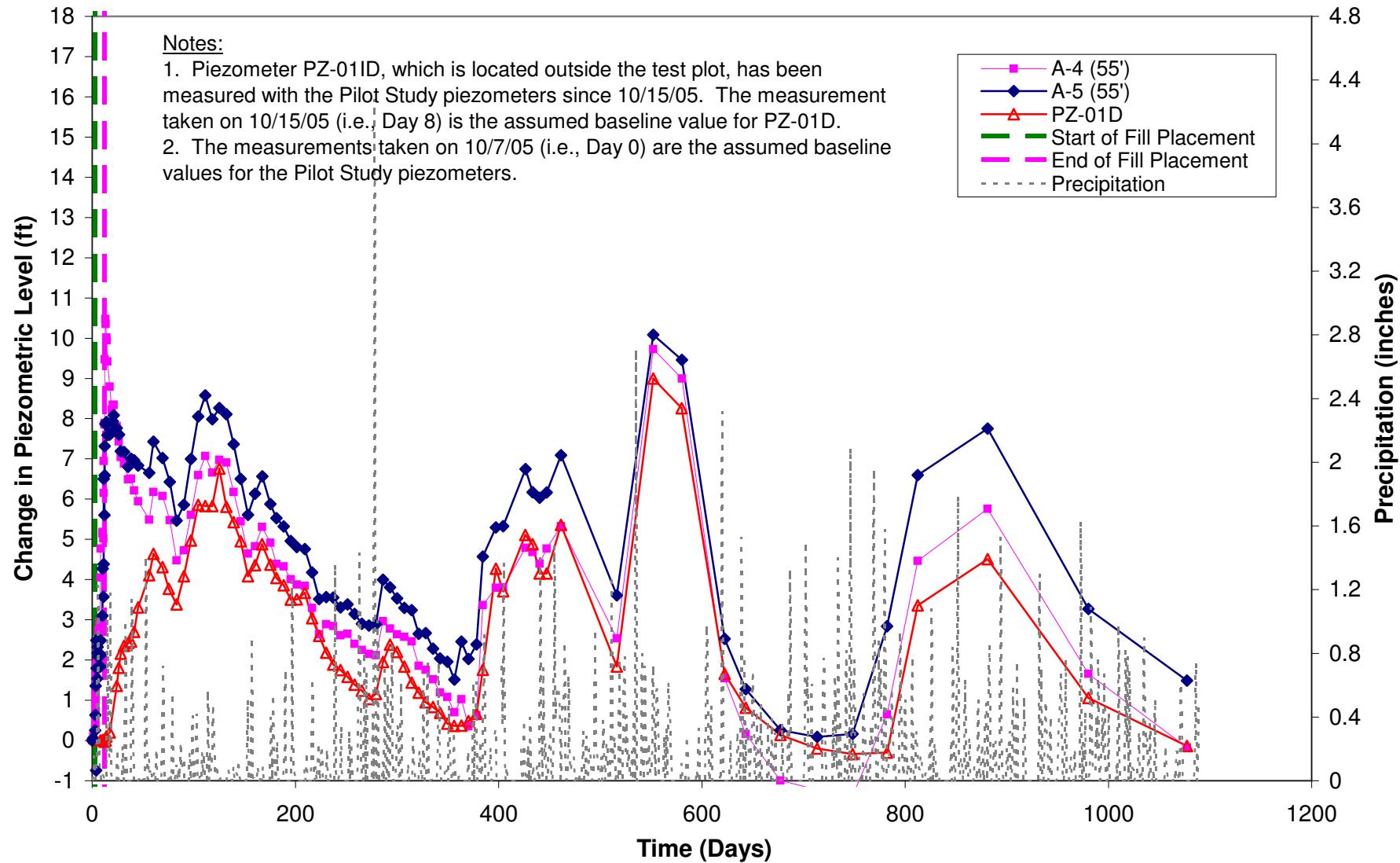


**Figure 2.5 45-ft Piezometers - Change in Piezometric Level with Time**



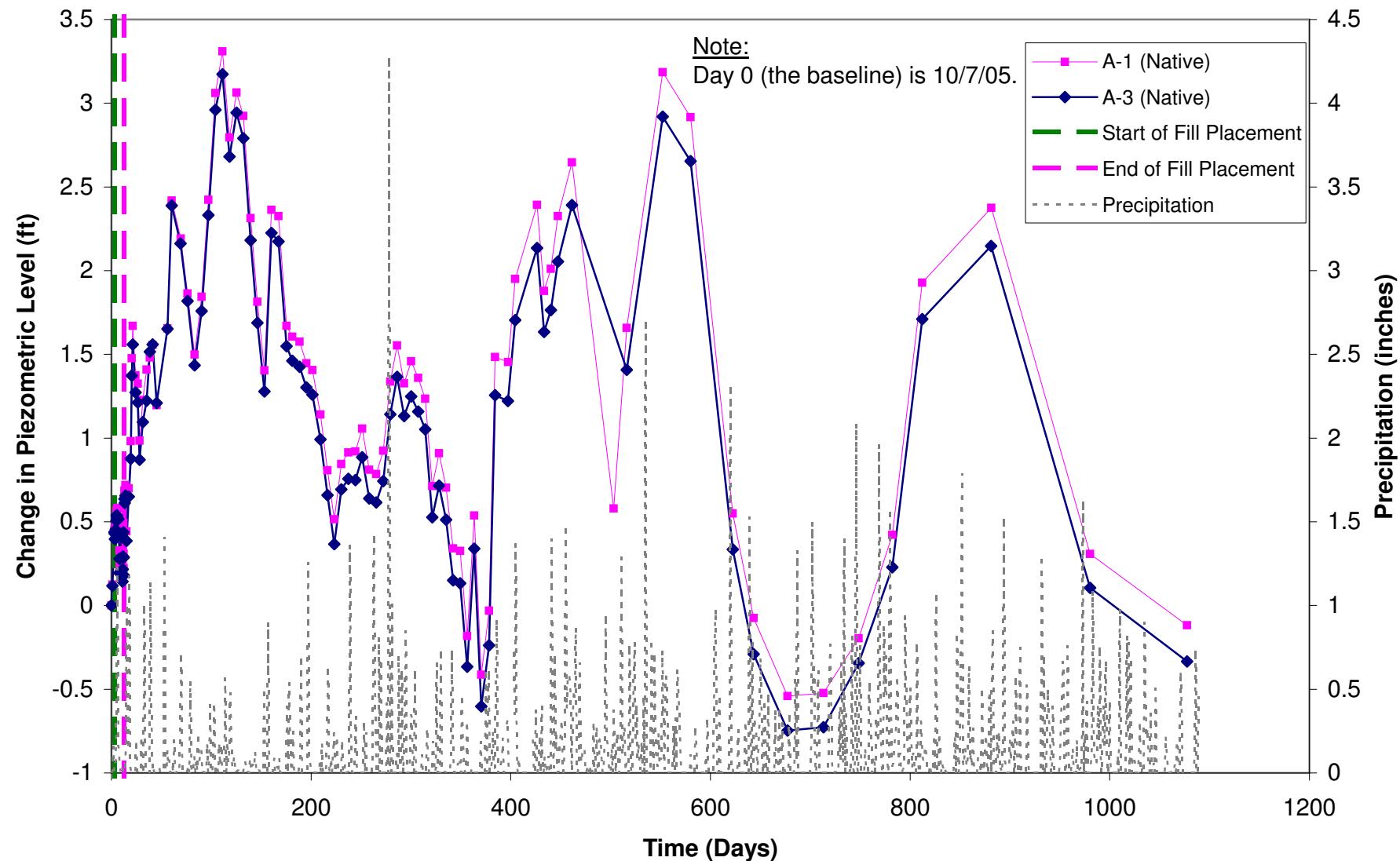
**PARSONS**

**Figure 2.6 55-ft Piezometers - Change in Piezometric Level with Time**

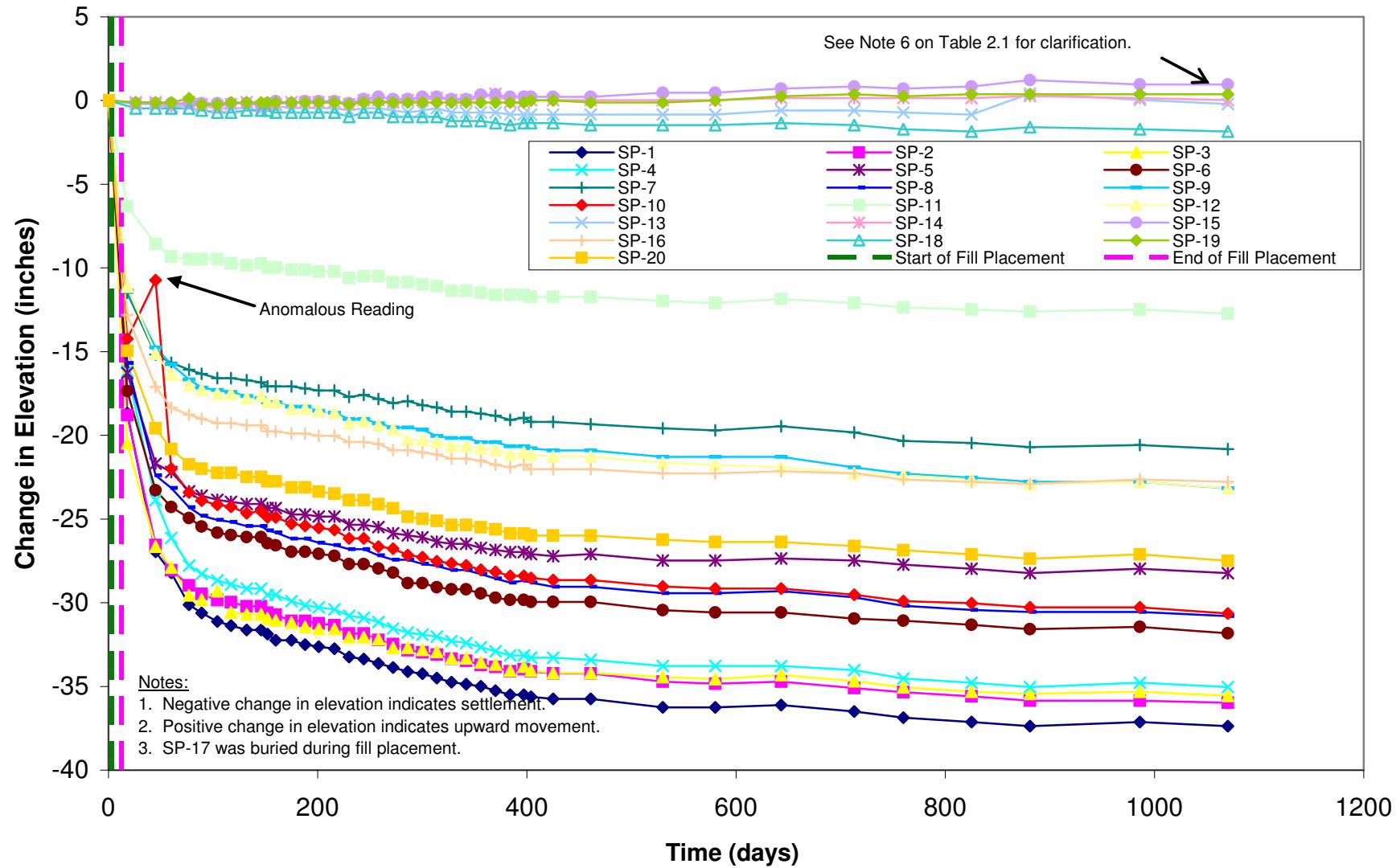


**PARSONS**

**Figure 2.7 Native Piezometers - Change in Piezometric Level with Time**



**Figure 2.8 Settlement Plate Data with Time**



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**APPENDIX A**  
**PIEZOMETRIC DATA**

**Wastedbed 13 Pilot Study**

Location	Depth	Name	Tip Elevation (ft)	Baseline Piezometric Elevation (ft)	Serial Number	Type
A-1	15	A-1 (15')	415.59	NA	04-12596	Typ VW
A-1	45	A-1 (45')	385.63	389.78	04-12598	Typ VW
A-1	Native	A-1 (Native)	352.53	373.44	04-12602	Typ VW
A-2	15	A-2 (15')	415.35	NA	NA	SP
A-2	30	A-2 (30')	400.27	401.85	05-13904	PI VW
A-2	45	A-2 (45')	385.34	388.99	05-13906	PI VW
A-3	15	A-3 (15')	415.43	NA	04-12601	Typ VW
A-3	30	A-3 (30')	400.11	402.43	04-12606	Typ VW
A-3	Native	A-3 (Native)	351.36	372.21	05-13902	Typ VW
A-4	15	A-4 (15')	414.45	NA	05-13907	PI VW
A-4	30	A-4 (30')	399.54	401.76	05-13908	PI VW
A-4	55	A-4 (55')	375.58	416.54	05-13909	PI VW
A-5	15	A-5 (15')	416.02	416.26	04-12600	Typ VW
A-5	30	A-5 (30')	401.07	403.91	04-12605	Typ VW
A-5	55	A-5 (55')	376.33	384.72	04-12608	Typ VW
A-6	15	A-6 (15')	415.79	NA	04-12603	Typ VW
A-6	30	A-6 (30')	400.88	404.52	04-12604	Typ VW
A-6	45	A-6 (45')	385.89	390.92	04-12607	Typ VW
A-7	15	A-7 (15')	414.92	NA	NA	SP
A-8	30	A-8 (30')	399.83	400.44	04-12597	Typ VW
A-9	15	A-9 (15')	414.42	NA	05-13910	PI VW
A-10	45	A-10 (45')	385.36	391.19	04-12599	Typ VW
A-11	30	A-11 (30')	400.58	402.93	05-13911	PI VW
A-12	45	A-12 (45')	386.44	390.03	NA	SP

**Notes:**

Typ VW = Typical Vibrating Wire Piezometer (GeoKon model 4500S)

PI VW = Push-in Vibrating Wire Piezometer (GeoKon model 4500DP)

SP = Standpipe

Baseline piezometer reading on subsequent tables.

NA = Not Applicable because piezometer was dry initially.

**Wastebed 13 Pilot Study**

**A-1 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout = 0 to 8 ft

Bentonite Seal = 8 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to Piezometer Tip from Ground Surface = 14.5 ft

Ro = 8880

To = 12.8 degrees Celsius

Linear Gage Factor (psi) = 0.01558 psi/digit

Thermal Factor = 0.023924 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.09 ft

Piezometer Tip Elevation = 415.59 ft

Serial # 04-12596

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/27/2005 8:58	8880	14.1	0.0	0.1	14.4	415.7		
9/27/2005 9:10	8890.2	14.0	-0.1	-0.3	>=14.5 ft	NA		
9/27/2005 10:57	8896.4	11.6	-0.3	-0.7	>=14.5 ft	NA		
10/7/2005 6:30	8895.6	10.1	-0.3	-0.7	>=14.5 ft	NA	0	0
10/8/2005 9:10	8896.3	10.1	-0.3	-0.7	>=14.5 ft	NA	1.1	0.0
10/10/2005 8:12	8891	10.1	-0.2	-0.5	>=14.5 ft	NA	3.1	0.2
10/10/2005 11:50	8891.3	10.1	-0.2	-0.6	>=14.5 ft	NA	3.2	0.2
10/10/2005 16:48	8891.7	10.3	-0.2	-0.6	>=14.5 ft	NA	3.4	0.2
10/11/2005 7:37	8890.6	10.1	-0.2	-0.5	>=14.5 ft	NA	4.0	0.2
10/11/2005 11:02	8889.8	10.1	-0.2	-0.5	>=14.5 ft	NA	4.2	0.2
10/11/2005 11:28	8890.9	10.1	-0.2	-0.5	>=14.5 ft	NA	4.2	0.2
10/11/2005 16:45	8890.2	10.2	-0.2	-0.5	>=14.5 ft	NA	4.4	0.2
10/12/2005 8:10	8888	10.1	-0.2	-0.4	>=14.5 ft	NA	5.1	0.3
10/12/2005 14:22	8886.5	10.1	-0.2	-0.4	>=14.5 ft	NA	5.3	0.3
10/12/2005 17:07	8886.7	10.3	-0.2	-0.4	>=14.5 ft	NA	5.4	0.3
10/13/2005 8:52	8854	11.2	0.4	0.8	13.7	416.4	6.1	1.6
10/14/2005 10:07	8834.4	11.6	0.7	1.6	12.9	417.2	7.2	2.3
10/15/2005 7:54	8805	10.2	1.1	2.6	11.9	418.1	8.1	3.3
10/15/2005 13:06	8780.3	11.2	1.5	3.5	11.0	419.1	8.3	4.2
10/15/2005 14:23	8775.8	10.4	1.6	3.6	10.9	419.2	8.3	4.3
10/15/2005 16:45	8765	10.1	1.7	4.0	10.5	419.6	8.4	4.7
10/17/2005 8:14	8757	10.1	1.9	4.3	10.2	419.9	10.1	5.0
10/17/2005 13:12	8752	10.1	1.9	4.5	10.0	420.0	10.3	5.2
10/18/2005 8:22	8759.9	10.1	1.8	4.2	10.3	419.8	11.1	4.9
10/18/2005 15:18	8689.5	10.1	2.9	6.7	7.8	422.3	11.4	7.4
10/18/2005 15:59	8682.8	10.7	3.0	7.0	7.5	422.6	11.4	7.7
10/18/2005 17:28	8676.8	10.1	3.1	7.2	7.3	422.7	11.5	7.9
10/19/2005 8:19	8686.2	10.1	3.0	6.8	7.7	422.4	12.1	7.5
10/19/2005 10:17	8682	10.2	3.0	7.0	7.5	422.6	12.2	7.7
10/19/2005 13:44	8644.8	10.2	3.6	8.3	6.2	423.9	12.3	9.0
10/19/2005 17:11	8623.3	10.1	3.9	9.1	5.4	424.7	12.4	9.8
10/20/2005 8:04	8640.1	10.2	3.7	8.5	6.0	424.1	13.1	9.2
10/20/2005 14:16	8649.7	10.1	3.5	8.1	6.4	423.7	13.3	8.8
10/21/2005 8:08	8671.1	10.2	3.2	7.4	7.1	423.0	14.1	8.1
10/21/2005 13:12	8676.1	10.1	3.1	7.2	7.3	422.8	14.3	7.9
10/22/2005 9:14	8697.8	9.9	2.8	6.4	8.1	422.0	15.1	7.1
10/24/2005 15:38	8708.1	10.2	2.6	6.0	8.5	421.6	17.4	6.7
10/26/2005 16:31	8690.1	10.2	2.9	6.7	7.8	422.3	19.4	7.4
10/27/2005 15:23	8692	10.2	2.9	6.6	7.9	422.2	20.4	7.3
10/28/2005 15:59	8698.3	10.2	2.8	6.4	8.1	422.0	21.4	7.1
10/31/2005 10:59	8720.3	10.2	2.4	5.6	8.9	421.2	24.2	6.3
11/2/2005 15:03	8731.3	10.4	2.3	5.2	9.3	420.8	26.4	5.9
11/4/2005 11:29	8739.9	10.3	2.1	4.9	9.6	420.5	28.2	5.6
11/7/2005 15:05	8739.4	10.3	2.1	4.9	9.6	420.5	31.4	5.6
11/11/2005 13:36	8736.8	10.3	2.2	5.0	9.5	420.6	35.3	5.7
11/14/2005 16:36	8729	10.3	2.3	5.3	9.2	420.9	38.4	6.0
11/17/2005 15:29	8694.1	10.4	2.8	6.6	7.9	422.1	41.4	7.3

**Wastebed 13 Pilot Study**

**A-1 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout = 0 to 8 ft

Bentonite Seal = 8 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to Piezometer Tip from Ground Surface = 14.5 ft

Ro = 8880

To = 12.8 degrees Celsius

Linear Gage Factor (psi) = 0.01558 psi/digit

Thermal Factor = 0.023924 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.09 ft

Piezometer Tip Elevation = 415.59 ft

Serial # 04-12596

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/21/2005 12:21	8726.8	10.4	2.3	5.4	9.1	421.0	45.2	6.1
12/2/2005 11:56	8709.8	10.4	2.6	6.0	8.5	421.6	56.2	6.7
12/6/2005 14:53	8719.5	10.5	2.4	5.6	8.9	421.2	60.3	6.4
12/15/2005 14:44	8739.1	10.6	2.1	4.9	9.6	420.5	69.3	5.7
12/22/2005 15:22	8752.5	10.6	1.9	4.5	10.0	420.1	76.4	5.2
12/29/2005 11:08	8751.4	10.7	2.0	4.5	10.0	420.1	83.2	5.2
1/5/2006 14:06	8732.8	10.7	2.2	5.2	9.3	420.8	90.3	5.9
1/12/2006 10:36	8695	10.7	2.8	6.5	8.0	422.1	97.2	7.2
1/19/2006 13:40	8690.5	10.7	2.9	6.7	7.8	422.3	104.3	7.4
1/26/2006 14:11	8699	10.8	2.8	6.4	8.1	422.0	111.3	7.1
2/2/2006 11:24	8696.8	10.8	2.8	6.5	8.0	422.1	118.2	7.2
2/9/2006 12:28	8692.2	10.8	2.9	6.6	7.9	422.2	125.2	7.4
2/16/2006 11:18	8716.9	10.9	2.5	5.8	8.7	421.3	132.2	6.5
2/23/2006 14:18	8734.2	10.9	2.2	5.1	9.4	420.7	139.3	5.8
3/2/2006 11:52	8756.4	10.9	1.9	4.3	10.2	419.9	146.2	5.0
3/9/2006 15:18	8770.3	11.2	1.7	3.9	10.6	419.4	153.4	4.6
3/16/2006 14:10	8707.1	10.9	2.6	6.1	8.4	421.7	160.3	6.8
3/23/2006 15:01	8732.5	10.9	2.3	5.2	9.3	420.8	167.4	5.9
3/31/2006 15:31	8752	11	2.0	4.5	10.0	420.1	175.4	5.2
4/6/2006 13:55	8760	10.9	1.8	4.2	10.3	419.8	181.3	4.9
4/13/2006 16:06	8757.3	10.9	1.9	4.3	10.2	419.9	188.4	5.0
4/20/2006 15:59	8766.9	11	1.7	4.0	10.5	419.6	195.4	4.7
4/26/2006 14:37	8753.1	10.9	1.9	4.5	10.0	420.0	201.3	5.2
5/4/2006 14:11	8765.6	10.8	1.7	4.0	10.5	419.6	209.3	4.7
5/11/2006 15:10	8782.2	10.8	1.5	3.4	11.1	419.0	216.4	4.1
5/18/2006 14:50	8794.6	10.8	1.3	3.0	11.5	418.6	223.3	3.7
5/25/2006 14:38	8785.9	10.8	1.4	3.3	11.2	418.9	230.3	4.0
6/1/2006 14:24	8784.6	10.8	1.4	3.3	11.2	418.9	237.3	4.0
6/8/2006 14:39	8788.4	10.7	1.4	3.2	11.3	418.8	244.3	3.9
6/15/2006 13:39	8786.8	10.7	1.4	3.2	11.3	418.8	251.3	3.9
6/22/2006 13:54	8790.2	10.7	1.3	3.1	11.4	418.7	258.3	3.8
6/29/2006 15:23	8792.3	10.7	1.3	3.0	11.5	418.6	265.4	3.7
7/6/2006 15:15	8792	10.6	1.3	3.0	11.5	418.6	272.4	3.8
7/13/2006 14:52	8724.7	10.6	2.4	5.5	9.0	421.1	279.3	6.2
7/20/2006 10:35	8746.1	10.6	2.0	4.7	9.8	420.3	286.2	5.4
7/27/2006 10:16	8772.1	10.6	1.6	3.8	10.7	419.3	293.2	4.5
8/3/2006 10:00	8781.9	10.6	1.5	3.4	11.1	419.0	300.1	4.1
8/10/2006 13:47	8781.1	10.5	1.5	3.4	11.1	419.0	307.3	4.1
8/17/2006 15:38	8780.8	10.5	1.5	3.4	11.1	419.0	314.4	4.1
8/24/2006 15:18	8792.1	10.5	1.3	3.0	11.5	418.6	321.4	3.7
8/31/2006 10:07	8790.6	10.5	1.3	3.1	11.4	418.7	328.2	3.8
9/7/2006 14:54	8797.3	10.5	1.2	2.8	11.7	418.4	335.3	3.6
9/14/2006 14:51	8804.6	10.8	1.1	2.6	11.9	418.2	342.3	3.3
9/21/2006 17:23	8804.6	10.5	1.1	2.6	11.9	418.2	349.5	3.3
9/28/2006 15:32	8814.2	10.5	1.0	2.2	12.3	417.8	356.4	2.9
10/5/2006 15:52	8792	10.6	1.3	3.0	11.5	418.6	363.4	3.8

**Wastebed 13 Pilot Study**

**A-1 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout =

0 to 8 ft

Bentonite Seal =

8 to 11.5 ft

Sandpack =

11.5 to 15 ft

Depth to Piezometer Tip from Ground Surface =

14.5 ft

Ro =

8880

To =

12.8 degrees Celsius

Linear Gage Factor (psi) =

0.01558 psi/digit

Thermal Factor =

0.023924 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.09 ft

Piezometer Tip Elevation =

415.59 ft

Serial # 04-12596

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/12/2006 15:02	8812	10.6	1.0	2.3	12.2	417.9	370.4	3.0
10/20/2006 14:26	8793.6	10.6	1.3	3.0	11.5	418.6	378.3	3.7
10/26/2006 15:19	8725.5	10.6	2.4	5.4	9.1	421.0	384.4	6.1
11/8/2006 13:06	8752.6	10.8	1.9	4.5	10.0	420.1	397.3	5.2
11/15/2006 16:24	8751.5	10.7	2.0	4.5	10.0	420.1	404.4	5.2
12/7/2006 15:23	8716.1	10.8	2.5	5.8	8.7	421.4	426.4	6.5
12/14/2006 14:21	8744.5	10.8	2.1	4.8	9.7	420.4	433.3	5.5
12/21/2006 13:44	8750.6	10.9	2.0	4.5	10.0	420.1	440.3	5.3
12/28/2006 14:01	8701	10.9	2.7	6.3	8.2	421.9	447.3	7.0
1/11/2007 15:51	8685	11	3.0	6.9	7.6	422.5	461.4	7.6
2/22/2007 11:00	8799	11.2	1.2	2.8	11.7	418.4	503.2	3.5
3/7/2007 10:33	8757.9	11.2	1.9	4.3	10.2	419.9	516.2	5.0
4/12/2007 11:32	8633.8	11.2	3.8	8.8	5.7	424.4	552.2	9.5
5/10/2007 11:58	8673.6	11.1	3.2	7.3	7.2	422.9	580.2	8.0
6/21/2007 13:26	8795.4	11	1.3	2.9	11.6	418.5	622.3	3.7
7/12/2007 13:29	8812.8	10.9	1.0	2.3	12.2	417.9	643.3	3.0
8/15/2007 13:40	8837.3	10.8	0.6	1.4	13.1	417.0	677.3	2.1
9/20/2007 14:47	8859.9	10.8	0.3	0.6	13.9	416.2	713.3	1.3
10/25/2007 15:46	8859.6	10.8	0.3	0.6	13.9	416.2	748.4	1.3
11/28/2007 12:45	8748.6	11	2.0	4.6	9.9	420.2	782.3	5.3
12/28/2007 13:15	8708.2	11.2	2.6	6.1	8.4	421.7	812.3	6.8
3/6/2008 12:40	8685.7	11.4	3.0	6.9	7.6	422.5	881.3	7.6
6/13/2008 12:40	8798.2	11.3	1.2	2.9	11.6	418.4	980.3	3.6
9/18/2008 14:20	8848.4	11	0.4	1.0	13.5	416.6	1077.3	1.7

**Wastedbed 13 Pilot Study**

**A-1 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/26/2005

Grout = 0 to 35.2 ft

Bentonite Seal = 35.2 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 8966

To = 15.2 degrees Celsius

Linear Gage Factor (psi) = 0.01622 psi/digit

Thermal Factor = 0.008635 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.13 ft

Piezometer Tip Elevation = 385.63 ft

Serial # 04-12598

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/26/2005 12:30	8080	15.7	14.4	33.2	11.3	418.8		
9/26/2005 13:30	8348.2	15.8	10.0	23.1	21.4	408.8		
9/27/2005 11:06	8826.0	11.8	2.2	5.2	39.3	390.8		
9/30/2005 14:06	8846.7	11	1.9	4.4	40.1	390.0		
<b>10/7/2005 6:30</b>	<b>8852.8</b>	<b>10.9</b>	<b>1.8</b>	<b>4.2</b>	<b>40.3</b>	<b>389.8</b>	<b>0</b>	<b>0</b>
10/8/2005 9:08	8847.7	10.9	1.9	4.3	40.2	390.0	1.1	0.2
10/10/2005 8:11	8844.2	10.9	1.9	4.5	40.0	390.1	3.1	0.3
10/10/2005 11:49	8833.2	10.9	2.1	4.9	39.6	390.5	3.2	0.7
10/10/2005 16:37	8796.4	11	2.7	6.3	38.2	391.9	3.4	2.1
10/11/2005 7:36	8802.6	10.9	2.6	6.0	38.5	391.7	4.0	1.9
10/11/2005 10:58	8728.8	10.9	3.8	8.8	35.7	394.4	4.2	4.6
10/11/2005 11:27	8726.7	10.9	3.8	8.9	35.6	394.5	4.2	4.7
10/11/2005 16:42	8729.9	10.9	3.8	8.8	35.7	394.4	4.4	4.6
10/12/2005 8:08	8749.7	10.9	3.5	8.0	36.5	393.6	5.1	3.9
10/12/2005 14:20	8728.1	10.9	3.8	8.8	35.7	394.4	5.3	4.7
10/12/2005 17:08	8693.5	11.1	4.4	10.1	34.4	395.7	5.4	6.0
10/13/2005 8:54	8712.3	10.9	4.1	9.4	35.1	395.0	6.1	5.3
10/14/2005 10:09	8719.5	12.7	4.0	9.2	35.3	394.8	7.2	5.0
10/15/2005 7:53	8734.2	10.9	3.7	8.6	35.9	394.2	8.1	4.4
10/15/2005 13:06	8690.6	10	4.4	10.2	34.3	395.8	8.3	6.1
10/15/2005 14:21	8672.1	10.9	4.7	10.9	33.6	396.5	8.3	6.8
10/15/2005 16:46	8660.9	10.9	4.9	11.3	33.2	397.0	8.4	7.2
10/17/2005 8:16	8652.6	10.9	5.0	11.6	32.9	397.3	10.1	7.5
10/17/2005 13:13	8631.4	10.9	5.4	12.4	32.1	398.1	10.3	8.3
10/18/2005 8:21	8638.5	10.9	5.3	12.2	32.3	397.8	11.1	8.0
10/18/2005 15:18	8551.5	10.9	6.7	15.4	29.1	401.1	11.4	11.3
10/18/2005 15:57	8543.8	10.9	6.8	15.7	28.8	401.3	11.4	11.6
10/18/2005 17:28	8533.3	10.9	7.0	16.1	28.4	401.7	11.5	12.0
10/19/2005 8:19	8519.9	10.9	7.2	16.6	27.9	402.2	12.1	12.5
10/19/2005 10:16	8515.5	10.9	7.3	16.8	27.7	402.4	12.2	12.6
10/19/2005 13:45	8476	10.9	7.9	18.3	26.2	403.9	12.3	14.1
10/19/2005 17:10	8448.5	10.9	8.4	19.3	25.2	404.9	12.4	15.1
10/20/2005 8:05	8447.6	10.9	8.4	19.3	25.2	404.9	13.1	15.2
10/20/2005 14:15	8451.6	10.9	8.3	19.2	25.3	404.8	13.3	15.0
10/21/2005 8:06	8460.2	10.9	8.2	18.8	25.7	404.5	14.1	14.7
10/21/2005 13:11	8463.9	10.9	8.1	18.7	25.8	404.3	14.3	14.6
10/22/2005 9:13	8480.1	10.9	7.8	18.1	26.4	403.7	15.1	14.0
10/24/2005 15:37	8496.9	10.9	7.6	17.5	27.0	403.1	17.4	13.3
10/26/2005 16:32	8513.3	10.9	7.3	16.9	27.6	402.5	19.4	12.7
10/27/2005 15:26	8510.3	10.9	7.4	17.0	27.5	402.6	20.4	12.8
10/28/2005 16:00	8510.8	10.9	7.3	17.0	27.5	402.6	21.4	12.8
10/31/2005 11:00	8531.2	10.8	7.0	16.2	28.3	401.8	24.2	12.0
11/2/2005 15:04	8541.2	10.8	6.9	15.8	28.7	401.4	26.4	11.7
11/4/2005 11:30	8557.4	10.8	6.6	15.2	29.3	400.8	28.2	11.1
11/7/2005 15:06	8562.6	10.8	6.5	15.0	29.5	400.6	31.4	10.9
11/11/2005 13:37	8577.7	10.8	6.3	14.4	30.1	400.1	35.3	10.3
11/14/2005 16:36	8577.7	10.8	6.3	14.4	30.1	400.1	38.4	10.3

**Wastedbed 13 Pilot Study**

**A-1 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/26/2005

Grout = 0 to 35.2 ft

Bentonite Seal = 35.2 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 8966

To = 15.2 degrees Celsius

Linear Gage Factor (psi) = 0.01622 psi/digit

Thermal Factor = 0.008635 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.13 ft

Piezometer Tip Elevation = 385.63 ft

Serial # 04-12598

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/17/2005 15:30	8587.6	10.8	6.1	14.1	30.4	399.7	41.4	9.9
11/21/2005 12:22	8603.1	10.8	5.8	13.5	31.0	399.1	45.2	9.3
12/2/2005 11:57	8618.9	10.8	5.6	12.9	31.6	398.5	56.2	8.8
12/6/2005 14:53	8602.5	10.8	5.9	13.5	31.0	399.1	60.3	9.4
12/15/2005 14:46	8618.1	10.8	5.6	12.9	31.6	398.6	69.3	8.8
12/22/2005 15:23	8632.3	10.8	5.4	12.4	32.1	398.0	76.4	8.3
12/29/2005 11:09	8656.8	10.8	5.0	11.5	33.0	397.1	83.2	7.3
1/5/2006 14:07	8650.2	10.8	5.1	11.7	32.8	397.4	90.3	7.6
1/12/2006 10:37	8622.5	10.8	5.5	12.8	31.7	398.4	97.2	8.6
1/19/2006 13:41	8592.4	10.8	6.0	13.9	30.6	399.5	104.3	9.7
1/26/2006 14:12	8579.5	10.8	6.2	14.4	30.1	400.0	111.3	10.2
2/2/2006 11:25	8598.4	10.8	5.9	13.7	30.8	399.3	118.2	9.5
2/9/2006 12:30	8590.2	10.8	6.1	14.0	30.5	399.6	125.3	9.8
2/16/2006 11:19	8595.5	10.8	6.0	13.8	30.7	399.4	132.2	9.6
2/23/2006 14:19	8616.6	10.8	5.6	13.0	31.5	398.6	139.3	8.8
3/2/2006 11:53	8641.7	10.8	5.2	12.1	32.4	397.7	146.2	7.9
3/9/2006 15:19	8666.1	10.8	4.8	11.1	33.4	396.8	153.4	7.0
3/16/2006 14:10	8647.5	10.8	5.1	11.8	32.7	397.5	160.3	7.7
3/23/2006 15:02	8636.6	10.7	5.3	12.2	32.3	397.9	167.4	8.1
3/31/2006 15:32	8658.3	10.7	5.0	11.4	33.1	397.1	175.4	7.3
4/6/2006 13:57	8666.4	10.7	4.8	11.1	33.4	396.8	181.3	7.0
4/13/2006 16:07	8672.2	10.7	4.7	10.9	33.6	396.5	188.4	6.8
4/20/2006 16:00	8682.4	10.7	4.6	10.5	34.0	396.2	195.4	6.4
4/26/2006 14:39	8685.7	10.7	4.5	10.4	34.1	396.0	201.3	6.3
5/4/2006 14:12	8688.9	10.7	4.5	10.3	34.2	395.9	209.3	6.1
5/11/2006 15:11	8705.4	10.7	4.2	9.7	34.8	395.3	216.4	5.5
5/18/2006 14:51	8721.7	10.7	3.9	9.1	35.4	394.7	223.3	4.9
5/25/2006 14:39	8715.6	10.7	4.0	9.3	35.2	394.9	230.3	5.1
6/1/2006 14:25	8714.6	10.7	4.0	9.3	35.2	395.0	237.3	5.2
6/8/2006 14:40	8722.4	10.7	3.9	9.0	35.5	394.7	244.3	4.9
6/15/2006 13:40	8720.6	10.7	3.9	9.1	35.4	394.7	251.3	4.9
6/22/2006 13:55	8728.3	10.7	3.8	8.8	35.7	394.4	258.3	4.7
6/29/2006 15:24	8734.8	10.7	3.7	8.6	35.9	394.2	265.4	4.4
7/6/2006 15:17	8736.2	10.7	3.7	8.5	36.0	394.1	272.4	4.4
7/13/2006 14:53	8736.1	10.7	3.7	8.5	36.0	394.1	279.3	4.4
7/20/2006 10:36	8709.6	10.7	4.1	9.5	35.0	395.1	286.2	5.4
7/27/2006 10:17	8718.9	10.7	4.0	9.2	35.3	394.8	293.2	5.0
8/3/2006 10:01	8729.1	10.7	3.8	8.8	35.7	394.4	300.1	4.6
8/10/2006 13:48	8736.3	10.7	3.7	8.5	36.0	394.1	307.3	4.4
8/17/2006 15:39	8737.3	10.7	3.7	8.5	36.0	394.1	314.4	4.3
8/24/2006 15:18	8753.3	10.7	3.4	7.9	36.6	393.5	321.4	3.7
8/31/2006 10:08	8751.2	10.7	3.4	8.0	36.5	393.6	328.2	3.8
9/7/2006 14:55	8778.1	10.6	3.0	6.9	37.6	392.6	335.4	2.8
9/14/2006 14:52	8784.7	10.7	2.9	6.7	37.8	392.3	342.3	2.5
9/21/2006 17:23	8786.1	10.7	2.9	6.6	37.9	392.3	349.5	2.5
9/28/2006 15:32	8798.8	10.7	2.7	6.2	38.3	391.8	356.4	2.0
10/5/2006 15:52	8785.3	10.7	2.9	6.7	37.8	392.3	363.4	2.5
10/12/2006 15:03	8800.9	10.8	2.6	6.1	38.4	391.7	370.4	1.9

**Wastebed 13 Pilot Study**

**A-1 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/26/2005

Grout =	0 to 35.2 ft
Bentonite Seal =	35.2 to 41.5 ft
Sandpack =	41.5 to 45 ft
Depth to piezometer tip from ground surface =	44.5 ft
Ro =	8966
To =	15.2 degrees Celsius
Linear Gage Factor (psi) =	0.01622 psi/digit
Thermal Factor =	0.008635 psi/°C
Unit Weight of Water =	62.4 pcf
Initial Ground Surface Elevation =	430.13 ft
Piezometer Tip Elevation =	385.63 ft

Serial # 04-12598

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/20/2006 14:27	8792.3	10.7	2.8	6.4	38.1	392.0	378.3	2.3
10/26/2006 15:20	8729.3	10.7	3.8	8.8	35.7	394.4	384.4	4.6
11/8/2006 13:07	8715.3	10.7	4.0	9.3	35.2	394.9	397.3	5.1
11/15/2006 16:25	8714.3	10.7	4.0	9.3	35.2	395.0	404.4	5.2
12/7/2006 15:24	8674.2	10.7	4.7	10.8	33.7	396.5	426.4	6.7
12/14/2006 14:21	8690.7	10.6	4.4	10.2	34.3	395.8	433.3	6.1
12/21/2006 13:45	8694.5	10.7	4.4	10.1	34.4	395.7	440.3	5.9
12/28/2006 14:03	8688.7	10.7	4.5	10.3	34.2	395.9	447.3	6.1
1/11/2007 15:52	8661.8	10.7	4.9	11.3	33.2	396.9	461.4	7.1
2/22/2007 11:02	8773.0	10.6	3.1	7.1	37.4	392.8	503.2	3.0
3/7/2007 10:34	8760.8	10.7	3.3	7.6	36.9	393.2	516.2	3.4
4/12/2007 11:33	8587.2	10.6	6.1	14.1	30.4	399.7	552.2	9.9
5/10/2007 11:58	8601.1	10.6	5.9	13.6	30.9	399.2	580.2	9.4
6/21/2007 13:27	8792.0	10.6	2.8	6.4	38.1	392.1	622.3	2.3
7/12/2007 13:30	8824.0	10.6	2.3	5.2	39.3	390.9	643.3	1.1
8/15/2007 13:40	8851.4	10.6	1.8	4.2	40.3	389.8	677.3	0.0
9/20/2007 14:48	8861.4	10.6	1.7	3.8	40.7	389.5	713.3	-0.3
10/25/2007 15:47	8864.6	10.6	1.6	3.7	40.8	389.3	748.4	-0.4
11/28/2007 12:45	8799.0	10.5	2.7	6.2	38.3	391.8	782.3	2.0
12/28/2007 13:15	8729.4	10.6	3.8	8.8	35.7	394.4	812.3	4.6
3/6/2008 12:40	8684.1	10.6	4.5	10.5	34.0	396.1	881.3	6.3
6/13/2008 12:40	8822.2	10.6	2.3	5.3	39.2	390.9	980.3	1.1
9/18/2008 14:20	8861.6	10.5	1.7	3.8	40.7	389.4	1077.3	-0.3

**Wastedbed 13 Pilot Study**

**A-1 (Native)**

Typical Vibrating Piezometer

Date Installed: 9/23/2005

Grout =

Serial # 04-12602

0 to 63.3 ft

Bentonite Seal =

63.3 to 74.5 ft

Sandpack =

74.5 to 78 ft

Depth to piezometer tip from ground surface =

77.5 ft

Ro =

9329.4

18 degrees Celsius

To =

0.01641 psi/digit

Thermal Factor =

0.013692 psi/°C

Unit Weight of Water =

62.4 pcf

Ground Surface Elevation =

430.03 ft

Piezometer Tip Elevation =

352.53 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/23/2005 10:48	8085	17.7	20.4	47.1	30.4	399.6		
9/23/2005 11:55	8317.2	17.6	16.6	38.3	39.2	390.8		
9/30/2005 14:00	8762.4	9.9	9.2	21.2	56.3	373.7		
<b>10/7/2005 6:30</b>	<b>8770.3</b>	<b>9.8</b>	<b>9.1</b>	<b>20.9</b>	<b>56.6</b>	<b>373.4</b>	<b>0</b>	<b>0</b>
10/8/2005 9:07	8767.0	9.8	9.1	21.0	56.5	373.6	1.1	0.1
10/10/2005 8:10	8758.5	9.8	9.3	21.4	56.1	373.9	3.1	0.4
10/10/2005 11:52	8758.6	9.9	9.3	21.4	56.1	373.9	3.2	0.4
10/10/2005 16:35	8759.2	9.8	9.2	21.3	56.2	373.9	3.4	0.4
10/11/2005 7:35	8758.2	10	9.3	21.4	56.1	373.9	4.0	0.5
10/11/2005 11:01	8757.8	9.9	9.3	21.4	56.1	373.9	4.2	0.5
10/11/2005 11:14	8757.5	9.9	9.3	21.4	56.1	373.9	4.2	0.5
10/11/2005 11:26	8757.7	9.9	9.3	21.4	56.1	373.9	4.2	0.5
10/11/2005 16:40	8758.0	9.8	9.3	21.4	56.1	373.9	4.4	0.5
10/12/2005 8:02	8756.6	9.9	9.3	21.4	56.1	374.0	5.1	0.5
10/12/2005 14:18	8755.5	9.9	9.3	21.5	56.0	374.0	5.3	0.6
10/12/2005 17:09	8755.4	9.9	9.3	21.5	56.0	374.0	5.4	0.6
10/13/2005 8:55	8755	9.9	9.3	21.5	56.0	374.0	6.1	0.6
10/14/2005 10:11	8755.9	10.9	9.3	21.5	56.0	374.0	7.2	0.6
10/15/2005 7:52	8761.7	9.9	9.2	21.2	56.3	373.8	8.1	0.3
10/15/2005 13:08	8764.3	9.9	9.2	21.1	56.4	373.7	8.3	0.2
10/15/2005 14:20	8764.3	9.8	9.2	21.1	56.4	373.7	8.3	0.2
10/15/2005 16:47	8764	9.8	9.2	21.2	56.3	373.7	8.4	0.2
10/17/2005 8:18	8758.1	9.8	9.3	21.4	56.1	373.9	10.1	0.5
10/17/2005 13:14	8758.1	9.8	9.3	21.4	56.1	373.9	10.3	0.5
10/18/2005 8:19	8765	9.8	9.1	21.1	56.4	373.6	11.1	0.2
10/18/2005 15:17	8763	9.8	9.2	21.2	56.3	373.7	11.4	0.3
10/18/2005 15:55	8762.7	9.8	9.2	21.2	56.3	373.7	11.4	0.3
10/18/2005 17:29	8761.6	9.8	9.2	21.2	56.3	373.8	11.5	0.3
10/19/2005 8:18	8757.3	9.8	9.3	21.4	56.1	373.9	12.1	0.5
10/19/2005 10:15	8759.7	9.8	9.2	21.3	56.2	373.8	12.2	0.4
10/19/2005 13:46	8764.4	9.8	9.2	21.1	56.4	373.7	12.3	0.2
10/19/2005 17:09	8762.2	9.9	9.2	21.2	56.3	373.8	12.4	0.3
10/20/2005 8:05	8752.2	9.8	9.4	21.6	55.9	374.1	13.1	0.7
10/20/2005 14:14	8752.6	9.8	9.4	21.6	55.9	374.1	13.3	0.7
10/21/2005 8:05	8751.3	9.8	9.4	21.6	55.9	374.2	14.1	0.7
10/21/2005 13:10	8752.1	9.9	9.4	21.6	55.9	374.1	14.3	0.7
10/22/2005 9:11	8758.7	9.9	9.3	21.4	56.1	373.9	15.1	0.4
10/24/2005 15:36	8751.9	9.9	9.4	21.6	55.9	374.1	17.4	0.7
10/26/2005 16:33	8744.4	9.8	9.5	21.9	55.6	374.4	19.4	1.0
10/27/2005 15:27	8731.3	9.8	9.7	22.4	55.1	374.9	20.4	1.5
10/28/2005 16:02	8726.2	9.8	9.8	22.6	54.9	375.1	21.4	1.7
10/31/2005 11:01	8734	9.8	9.7	22.3	55.2	374.8	24.2	1.4
11/2/2005 15:05	8735.3	9.8	9.6	22.2	55.3	374.8	26.4	1.3
11/4/2005 11:31	8744.3	9.8	9.5	21.9	55.6	374.4	28.2	1.0
11/7/2005 15:07	8737.9	9.8	9.6	22.1	55.4	374.7	31.4	1.2
11/11/2005 13:38	8733.1	9.8	9.7	22.3	55.2	374.9	35.3	1.4
11/14/2005 16:38	8731.2	9.8	9.7	22.4	55.1	374.9	38.4	1.5
11/17/2005 15:30	8729.2	9.8	9.7	22.5	55.0	375.0	41.4	1.6

**Wastedbed 13 Pilot Study**

**A-1 (Native)**

Typical Vibrating Piezometer

Date Installed: 9/23/2005

Grout = 0 to 63.3 ft

Bentonite Seal = 63.3 to 74.5 ft

Sandpack = 74.5 to 78 ft

Depth to piezometer tip from ground surface = 77.5 ft

Ro = 9329.4

To = 18 degrees Celsius

Linear Gage Factor (psi) = 0.01641 psi/digit

Thermal Factor = 0.013692 psi/°C

Unit Weight of Water = 62.4 pcf

Ground Surface Elevation = 430.03 ft

Piezometer Tip Elevation = 352.53 ft

Serial # 04-12602

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/21/2005 12:23	8738.7	9.8	9.6	22.1	55.4	374.6	45.2	1.2
12/2/2005 11:58	8726.6	9.8	9.8	22.6	54.9	375.1	56.2	1.7
12/6/2005 14:54	8706.5	9.9	10.1	23.3	54.2	375.9	60.3	2.4
12/15/2005 14:47	8712.4	9.8	10.0	23.1	54.4	375.6	69.3	2.2
12/22/2005 15:24	8721.1	9.8	9.9	22.8	54.7	375.3	76.4	1.9
12/29/2005 11:11	8730.7	9.8	9.7	22.4	55.1	374.9	83.2	1.5
1/5/2006 14:08	8721.6	9.8	9.9	22.8	54.7	375.3	90.3	1.8
1/12/2006 10:38	8706.3	9.8	10.1	23.3	54.2	375.9	97.2	2.4
1/19/2006 13:42	8689.5	9.8	10.4	24.0	53.5	376.5	104.3	3.1
1/26/2006 14:14	8682.9	9.8	10.5	24.2	53.3	376.8	111.3	3.3
2/2/2006 11:26	8696.5	9.8	10.3	23.7	53.8	376.2	118.2	2.8
2/9/2006 12:30	8689.4	9.8	10.4	24.0	53.5	376.5	125.3	3.1
2/16/2006 11:21	8693.1	9.8	10.3	23.8	53.7	376.4	132.2	2.9
2/23/2006 14:20	8709.2	9.8	10.1	23.2	54.3	375.8	139.3	2.3
3/2/2006 11:54	8722.4	9.8	9.8	22.7	54.8	375.3	146.2	1.8
3/9/2006 15:20	8733.2	9.8	9.7	22.3	55.2	374.8	153.4	1.4
3/16/2006 14:11	8707.9	9.8	10.1	23.3	54.2	375.8	160.3	2.4
3/23/2006 15:03	8708.9	9.8	10.1	23.2	54.3	375.8	167.4	2.3
3/31/2006 15:33	8726.1	9.7	9.8	22.6	54.9	375.1	175.4	1.7
4/6/2006 13:58	8727.9	9.8	9.8	22.5	55.0	375.0	181.3	1.6
4/13/2006 16:08	8728.6	9.7	9.7	22.5	55.0	375.0	188.4	1.6
4/20/2006 16:00	8732	9.7	9.7	22.4	55.1	374.9	195.4	1.4
4/26/2006 14:40	8733.1	9.7	9.7	22.3	55.2	374.8	201.3	1.4
5/4/2006 14:13	8740.1	9.7	9.6	22.1	55.4	374.6	209.3	1.1
5/11/2006 15:12	8748.9	9.7	9.4	21.7	55.8	374.3	216.4	0.8
5/18/2006 14:51	8756.6	9.7	9.3	21.4	56.1	374.0	223.3	0.5
5/25/2006 14:41	8747.9	9.7	9.4	21.8	55.7	374.3	230.3	0.8
6/1/2006 14:26	8746.1	9.7	9.5	21.8	55.7	374.4	237.3	0.9
6/8/2006 14:40	8746	9.8	9.5	21.8	55.7	374.4	244.3	0.9
6/15/2006 13:41	8742.3	9.7	9.5	22.0	55.5	374.5	251.3	1.1
6/22/2006 13:56	8748.8	9.7	9.4	21.7	55.8	374.3	258.3	0.8
6/29/2006 15:25	8749.5	9.7	9.4	21.7	55.8	374.2	265.4	0.8
7/6/2006 15:18	8745.8	9.7	9.5	21.8	55.7	374.4	272.4	0.9
7/13/2006 14:53	8734.9	9.7	9.6	22.3	55.2	374.8	279.3	1.3
7/20/2006 10:37	8729.2	9.7	9.7	22.5	55.0	375.0	286.2	1.6
7/27/2006 10:19	8735.2	9.7	9.6	22.2	55.3	374.8	293.2	1.3
8/3/2006 10:02	8731.8	9.8	9.7	22.4	55.1	374.9	300.1	1.5
8/10/2006 13:48	8734.3	9.7	9.7	22.3	55.2	374.8	307.3	1.4
8/17/2006 15:40	8737.6	9.7	9.6	22.1	55.4	374.7	314.4	1.2
8/24/2006 15:19	8751.4	9.7	9.4	21.6	55.9	374.2	321.4	0.7
8/31/2006 10:09	8746.2	9.7	9.5	21.8	55.7	374.4	328.2	0.9
9/7/2006 14:56	8751.7	9.8	9.4	21.6	55.9	374.1	335.4	0.7
9/14/2006 14:53	8761.2	9.7	9.2	21.3	56.2	373.8	342.3	0.3
9/21/2006 17:24	8761.6	9.7	9.2	21.2	56.3	373.8	349.5	0.3
9/28/2006 15:34	8775.1	9.8	9.0	20.7	56.8	373.3	356.4	-0.2
10/5/2006 15:53	8756.1	9.8	9.3	21.5	56.0	374.0	363.4	0.5
10/12/2006 15:04	8781.2	9.8	8.9	20.5	57.0	373.0	370.4	-0.4
10/20/2006 14:29	8771.1	9.8	9.0	20.9	56.6	373.4	378.3	0.0
10/26/2006 15:21	8731.1	9.8	9.7	22.4	55.1	374.9	384.4	1.5

**Wastebed 13 Pilot Study**

**A-1 (Native)**

Typical Vibrating Piezometer

Date Installed: 9/23/2005

Grout = 0 to 63.3 ft

Bentonite Seal = 63.3 to 74.5 ft

Sandpack = 74.5 to 78 ft

Depth to piezometer tip from ground surface = 77.5 ft

Ro = 9329.4

To = 18 degrees Celsius

Linear Gage Factor (psi) = 0.01641 psi/digit

Thermal Factor = 0.013692 psi/°C

Unit Weight of Water = 62.4 pcf

Ground Surface Elevation = 430.03 ft

Piezometer Tip Elevation = 352.53 ft

Serial # 04-12602

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/8/2006 13:08	8731.9	9.8	9.7	22.4	55.1	374.9	397.3	1.5
11/15/2006 16:25	8718.8	9.8	9.9	22.9	54.6	375.4	404.4	2.0
12/7/2006 15:25	8707.1	9.8	10.1	23.3	54.2	375.8	426.4	2.4
12/14/2006 14:22	8720.7	9.8	9.9	22.8	54.7	375.3	433.3	1.9
12/21/2006 13:46	8717.2	9.8	9.9	22.9	54.6	375.5	440.3	2.0
12/28/2006 14:04	8708.9	9.8	10.1	23.2	54.3	375.8	447.3	2.3
1/11/2007 15:53	8700.4	9.8	10.2	23.6	53.9	376.1	461.4	2.6
2/22/2007 11:03	8755	9.8	9.3	21.5	56.0	374.0	503.2	0.6
3/7/2007 10:35	8726.5	9.8	9.8	22.6	54.9	375.1	516.2	1.7
4/12/2007 11:34	8686.1	9.7	10.4	24.1	53.4	376.6	552.2	3.2
5/10/2007 11:59	8693.2	9.7	10.3	23.8	53.7	376.4	580.2	2.9
6/21/2007 13:28	8755.7	9.7	9.3	21.5	56.0	374.0	622.3	0.5
7/12/2007 13:31	8772.2	9.7	9.0	20.8	56.7	373.4	643.3	-0.1
8/15/2007 13:41	8784.5	9.7	8.8	20.4	57.1	372.9	677.3	-0.5
9/20/2007 14:49	8784.1	9.8	8.8	20.4	57.1	372.9	713.3	-0.5
10/25/2007 15:47	8775.4	9.7	9.0	20.7	56.8	373.2	748.4	-0.2
11/28/2007 12:45	8759	9.6	9.2	21.3	56.2	373.9	782.3	0.4
12/28/2007 13:15	8719.3	9.7	9.9	22.8	54.7	375.4	812.3	1.9
3/6/2008 12:40	8707.5	9.7	10.1	23.3	54.2	375.8	881.3	2.4
6/13/2008 12:40	8762.1	9.7	9.2	21.2	56.3	373.8	980.3	0.3
9/18/2008 14:20	8773.4	9.8	9.0	20.8	56.7	373.3	1077.3	-0.1

**Wastedbed 13 Pilot Study**

**A-2 (15 ft)**

Cable Cut during installation.

Serial # 05-13903

Standpipe Piezometer

Date Installed: 9/30/2005

Grout =	0 to 6.5 ft
Bentonite Seal =	6.5 to 11 ft
Sandpack Set Depth =	11 to 15 ft
Screened Interval =	12 to 15 ft
Piezometer Set Depth =	15 ft
Initial Casing Stickup =	3.2 ft
Intermediate Casing Stickup =	8.8 ft
Final Casing Stickup =	13.8 ft
Initial Top of Casing Elevation =	433.6 ft
Intermediate Top of Casing Elevation =	NA ft
Final Top of Casing Elevation =	444.2 ft
Initial Ground Surface Elevation =	430.35 ft
Standpipe Tip Elevation =	415.35 ft

\*\* Indicates that a baseline piezometric level of 15 ft bgs was assumed for this calculation.

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)**
9/19/2005 13:50	Dry	Dry	Dry		
10/8/2005 9:37	Dry	Dry	Dry	1	0
10/10/2005 8:20	17.41	14.2	416.1	2.9	0.8
10/11/2005 7:30	22.09	13.3	417.1	3.9	1.7
10/11/2005 16:55	22.79	14.0	416.4	4.3	1.0
10/12/2005 9:00	21.6	12.8	417.6	5.0	2.2
10/12/2005 17:35	21.36	12.5	417.8	5.3	2.5
10/13/2005 12:51	21.89	13.1	417.3	6.1	1.9
10/14/2005 11:06	21.29	12.5	417.9	7.1	2.5
10/15/2005 8:34	19.69	10.9	419.5	8.0	4.1
10/15/2005 15:20	23.58	9.8	420.6	8.2	5.2
10/17/2005 13:49	23.4	9.6	420.8	10.2	5.4
10/18/2005 8:08	23.47	9.6	420.7	10.9	5.4
10/18/2005 15:45	21.31	7.5	422.9	11.3	7.5
10/18/2005 17:25	20.46	6.6	423.7	11.3	8.4
10/19/2005 8:17	21.37	7.5	422.8	11.9	7.5
10/20/2005 13:45	20.54	6.7	423.6	13.2	8.3
10/20/2005 15:43	20.66	6.8	423.5	13.3	8.2
10/21/2005 8:24	21.34	7.5	422.8	13.9	7.5
10/21/2005 13:30	21.43	7.6	422.7	14.2	7.4
10/22/2005 9:08	21.95	8.1	422.2	15.0	6.9
10/24/2005 15:32	22.11	8.3	422.1	17.2	6.7
10/26/2005 16:35	21.27	7.4	422.9	19.3	7.6
10/27/2005 15:17	21.75	7.9	422.4	20.2	7.1
10/28/2005 16:05	22.12	8.3	422.1	21.3	6.7
10/31/2005 10:56	22.77	8.9	421.4	24.1	6.1
11/2/2005 15:00	23.21	9.4	421.0	26.2	5.6
11/4/2005 11:33	23.22	9.4	421.0	28.1	5.6
11/7/2005 15:10	23.49	9.7	420.7	31.2	5.3
11/11/2005 13:33	23.32	9.5	420.9	35.2	5.5
11/14/2005 16:30	23.41	9.6	420.8	38.3	5.4
11/17/2005 15:08	21.8	8.0	422.4	41.2	7.0
11/21/2005 12:07	22.7	8.9	421.5	45.1	6.1
12/2/2005 11:29	21.65	7.8	422.5	56.1	7.2
12/6/2005 14:33	22.66	8.8	421.5	60.2	6.2
12/15/2005 14:09	23.45	9.6	420.7	69.2	5.4
12/22/2005 14:53	23.77	9.9	420.4	76.2	5.1
12/29/2005 10:37	23.19	9.4	421.0	83.0	5.6

**Wastedbed 13 Pilot Study**

**A-2 (15 ft)**

Cable Cut during installation.

Serial # 05-13903

Standpipe Piezometer

Date Installed: 9/30/2005

Grout =	0 to 6.5 ft
Bentonite Seal =	6.5 to 11 ft
Sandpack Set Depth =	11 to 15 ft
Screened Interval =	12 to 15 ft
Piezometer Set Depth =	15 ft
Initial Casing Stickup =	3.2 ft
Intermediate Casing Stickup =	8.8 ft
Final Casing Stickup =	13.8 ft
Initial Top of Casing Elevation =	433.6 ft
Intermediate Top of Casing Elevation =	NA ft
Final Top of Casing Elevation =	444.2 ft
Initial Ground Surface Elevation =	430.35 ft
Standpipe Tip Elevation =	415.35 ft

\*\* Indicates that a baseline piezometric level of 15 ft bgs was assumed for this calculation.

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)**
1/5/2006 13:40	22.6	8.8	421.6	90.2	6.2
1/12/2006 10:19	21.43	7.6	422.7	97.0	7.4
1/19/2006 13:17	21.64	7.8	422.5	104.2	7.2
1/26/2006 13:46	22.25	8.4	421.9	111.2	6.6
2/2/2006 11:07	21.56	7.7	422.6	118.1	7.3
2/9/2006 12:07	21.51	7.7	422.7	125.1	7.3
2/16/2006 10:52	22.66	8.8	421.5	132.1	6.2
2/23/2006 13:51	22.92	9.1	421.3	139.2	5.9
3/2/2006 11:30	23.52	9.7	420.7	146.1	5.3
3/9/2006 14:55	23.97	10.1	420.2	153.2	4.9
3/16/2006 13:44	22.1	8.3	422.1	160.2	6.7
3/23/2006 14:34	23.25	9.4	420.9	167.2	5.6
3/31/2006 15:09	23.63	9.8	420.5	175.2	5.2
4/6/2006 13:32	23.91	10.1	420.3	181.2	4.9
4/13/2006 15:46	23.88	10.1	420.3	188.3	4.9
4/20/2006 15:34	24.18	10.4	420.0	195.2	4.6
4/26/2006 14:15	23.65	9.8	420.5	201.2	5.2
5/4/2006 13:50	23.96	10.1	420.2	209.2	4.9
5/11/2006 14:46	24.27	10.4	419.9	216.2	4.6
5/18/2006 13:55	24.43	10.6	419.7	223.2	4.4
5/25/2006 14:17	24.57	10.7	419.6	230.2	4.3
6/1/2006 14:07	24.72	10.9	419.5	237.2	4.1
6/8/2006 14:12	24.71	10.9	419.5	244.2	4.1
6/15/2006 13:22	24.85	11.0	419.3	251.2	4.0
6/22/2006 13:32	24.92	11.1	419.3	258.2	3.9
6/29/2006 14:58	25.01	11.2	419.2	265.2	3.8
7/6/2006 14:20	25.21	11.4	419.0	272.2	3.6
7/13/2006 14:32	22.28	8.5	421.9	279.2	6.5
7/20/2006 10:10	23.73	9.9	420.4	286.0	5.1
7/27/2006 9:53	24.32	10.5	419.9	293.0	4.5
8/3/2006 9:37	24.55	10.7	419.6	300.0	4.3
8/10/2006 13:30	24.61	10.8	419.6	307.2	4.2
8/17/2006 15:23	24.86	11.0	419.3	314.2	4.0
8/24/2006 14:57	25.02	11.2	419.2	321.2	3.8
8/31/2006 9:42	25.3	11.5	418.9	328.0	3.5
9/7/2006 14:22	25.35	11.5	418.8	335.2	3.5
9/14/2006 14:27	25.41	11.6	418.8	342.2	3.4
9/21/2006 17:03	25.56	11.7	418.6	349.3	3.3

**Wastedbed 13 Pilot Study**

**A-2 (15 ft)**

Cable Cut during installation.

Serial # 05-13903

Standpipe Piezometer

Date Installed: 9/30/2005

Grout =	0 to 6.5 ft
Bentonite Seal =	6.5 to 11 ft
Sandpack Set Depth =	11 to 15 ft
Screened Interval =	12 to 15 ft
Piezometer Set Depth =	15 ft
Initial Casing Stickup =	3.2 ft
Intermediate Casing Stickup =	8.8 ft
Final Casing Stickup =	13.8 ft
Initial Top of Casing Elevation =	433.6 ft
Intermediate Top of Casing Elevation =	NA ft
Final Top of Casing Elevation =	444.2 ft
Initial Ground Surface Elevation =	430.35 ft
Standpipe Tip Elevation =	415.35 ft

\*\* Indicates that a baseline piezometric level of 15 ft bgs was assumed for this calculation.

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)**
9/28/2006 14:43	25.47	11.6	418.7	356.2	3.4
10/5/2006 15:27	25.38	11.6	418.8	363.2	3.4
10/12/2006 14:27	25.2	11.4	419.0	370.2	3.6
10/20/2006 15:04	24.49	10.7	419.7	378.2	4.3
10/26/2006 14:42	22.96	9.1	421.2	384.2	5.9
11/8/2006 12:44	23.43	9.6	420.7	397.1	5.4
11/15/2006 15:55	23.76	9.9	420.4	404.3	5.1
12/7/2006 14:46	22.41	8.6	421.8	426.2	6.4
12/14/2006 13:56	23.3	9.5	420.9	433.2	5.5
12/21/2006 13:17	23.99	10.2	420.2	440.2	4.8
12/28/2006 13:32	22.12	8.3	422.1	447.2	6.7
1/11/2007 15:11	21.49	7.7	422.7	461.2	7.3
2/22/2007 10:44	24.65	10.8	419.5	503.0	4.2
3/7/2007 10:25	24.45	10.6	419.7	516.0	4.4
4/12/2007 11:11	19.19	5.4	425.0	552.1	9.6
5/10/2007 11:36	20.84	7.0	423.3	580.1	8.0
6/21/2007 13:02	25	11.2	419.2	622.1	3.8
7/12/2007 13:02	25.61	11.8	418.6	643.1	3.2
8/15/2007 13:09	26.35	12.5	417.8	677.1	2.5
9/20/2007 14:08	27.06	13.2	417.1	713.2	1.8
10/25/2007 15:00	27.27	13.4	416.9	748.2	1.6
11/28/2007 12:14	24.23	10.4	419.9	782.1	4.6
12/28/2007 12:32	22.2	8.4	422.0	812.1	6.6
3/6/2008 12:12	21.05	7.2	423.1	881.1	7.8
6/13/2008 12:05	25.15	11.3	419.0	980.1	3.7
9/18/2008 13:37	26.65	12.8	417.5	1077.2	2.2

**Wastebed 13 Pilot Study**

**A-2 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/5/2005

Grout =

Serial # 05-13904

0 to 20.7 ft

Bentonite Seal =

20.7 to 25 ft

Depth to piezometer tip from ground surface =

30 ft

Ro =

8839.3

To =

15.6 degrees Celsius

Linear Gage Factor (psi) =

0.01517 psi/digit

Thermal Factor =

0.00142 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.27 ft

Piezometer Tip Elevation =

400.27 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/5/2005 8:35	8635	11.8	3.1	7.1	22.9	407.4		
10/7/2005 6:30	8793.7	11.1	0.7	1.6	28.4	401.9	0	0
10/8/2005 9:05	8792.5	11.1	0.7	1.6	28.4	401.9	1.1	0.0
10/10/2005 8:06	8789.0	11	0.8	1.7	28.3	402.0	3.1	0.2
10/10/2005 11:48	8762.3	11.1	1.2	2.7	27.3	403.0	3.2	1.1
10/10/2005 16:49	8744.1	11	1.4	3.3	26.7	403.6	3.4	1.7
10/11/2005 7:35	8751.7	11.1	1.3	3.1	26.9	403.3	4.0	1.5
10/11/2005 11:29	8680.9	11.1	2.4	5.5	24.5	405.8	4.2	3.9
10/11/2005 16:37	8688.2	11	2.3	5.3	24.7	405.5	4.4	3.7
10/12/2005 7:59	8695.3	11	2.2	5.0	25.0	405.3	5.1	3.4
10/12/2005 14:17	8646.6	11.1	2.9	6.7	23.3	407.0	5.3	5.1
10/12/2005 17:11	8627.9	11.4	3.2	7.4	22.6	407.7	5.4	5.8
10/13/2005 8:57	8636.1	11.3	3.1	7.1	22.9	407.4	6.1	5.5
10/14/2005 10:13	8647.2	12.5	2.9	6.7	23.3	407.0	7.2	5.1
10/15/2005 7:50	8663.7	11.1	2.7	6.1	23.9	406.4	8.1	4.6
10/15/2005 13:09	8613.8	11.1	3.4	7.9	22.1	408.1	8.3	6.3
10/15/2005 14:18	8601.3	11	3.6	8.3	21.7	408.6	8.3	6.7
10/15/2005 16:37	8590.1	11	3.8	8.7	21.3	409.0	8.4	7.1
10/17/2005 8:20	8583.2	11.2	3.9	9.0	21.0	409.2	10.1	7.4
10/17/2005 13:16	8539	11.1	4.5	10.5	19.5	410.8	10.3	8.9
10/18/2005 8:12	8552.6	11.1	4.3	10.0	20.0	410.3	11.1	8.4
10/18/2005 15:15	8459.9	11	5.7	13.3	16.7	413.5	11.4	11.7
10/18/2005 15:54	8452	11	5.9	13.5	16.5	413.8	11.4	12.0
10/18/2005 17:29	8411.3	11	6.5	15.0	15.0	415.2	11.5	13.4
10/19/2005 8:16	8403.2	11.1	6.6	15.3	14.7	415.5	12.1	13.7
10/19/2005 10:13	8374.7	11	7.0	16.2	13.8	416.5	12.2	14.7
10/19/2005 13:47	8353.5	11	7.4	17.0	13.0	417.3	12.3	15.4
10/19/2005 17:07	8312.4	11	8.0	18.4	11.6	418.7	12.4	16.8
10/20/2005 8:10	8311.9	11.1	8.0	18.4	11.6	418.7	13.1	16.9
10/20/2005 13:45	8316.3	11	7.9	18.3	11.7	418.6	13.3	16.7
10/21/2005 8:04	8325.4	11.1	7.8	18.0	12.0	418.2	14.1	16.4
10/21/2005 13:07	8329.2	11	7.7	17.8	12.2	418.1	14.3	16.3
10/22/2005 9:08	8346.8	11.1	7.5	17.2	12.8	417.5	15.1	15.6
10/24/2005 15:34	8372.5	11	7.1	16.3	13.7	416.6	17.4	14.7
10/26/2005 16:37	8399	11.1	6.7	15.4	14.6	415.7	19.4	13.8
10/27/2005 15:20	8403.2	11.1	6.6	15.3	14.7	415.5	20.4	13.7
10/28/2005 15:57	8411.2	11	6.5	15.0	15.0	415.2	21.4	13.4
10/31/2005 10:57	8447.3	11	5.9	13.7	16.3	414.0	24.2	12.1
11/2/2005 15:01	8468.1	11	5.6	13.0	17.0	413.2	26.4	11.4
11/4/2005 11:36	8493.1	11.1	5.2	12.1	17.9	412.4	28.2	10.5
11/7/2005 15:11	8509.6	11.1	5.0	11.5	18.5	411.8	31.4	9.9
11/11/2005 13:35	8537.6	11.1	4.6	10.5	19.5	410.8	35.3	9.0
11/14/2005 16:39	8547.1	11.1	4.4	10.2	19.8	410.5	38.4	8.6
11/17/2005 15:28	8558.6	11.1	4.3	9.8	20.2	410.1	41.4	8.2
11/21/2005 12:20	8589.4	11.1	3.8	8.7	21.3	409.0	45.2	7.2
12/2/2005 11:59	8608.1	11.1	3.5	8.1	21.9	408.3	56.2	6.5
12/6/2005 14:51	8605.2	11.1	3.5	8.2	21.8	408.5	60.3	6.6
12/15/2005 14:40	8632.8	11.1	3.1	7.2	22.8	407.5	69.3	5.6

**Wastebed 13 Pilot Study**

**A-2 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/5/2005

Grout =

Serial # 05-13904

0 to 20.7 ft

Bentonite Seal =

20.7 to 25 ft

Depth to piezometer tip from ground surface =

30 ft

Ro =

8839.3

To =

15.6 degrees Celsius

Linear Gage Factor (psi) =

0.01517 psi/digit

Thermal Factor =

0.00142 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.27 ft

Piezometer Tip Elevation =

400.27 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/22/2005 15:20	8648.9	11.1	2.9	6.7	23.3	406.9	76.4	5.1
12/29/2005 11:05	8666.9	11	2.6	6.0	24.0	406.3	83.2	4.4
1/5/2006 14:02	8656.9	11.2	2.8	6.4	23.6	406.6	90.3	4.8
1/12/2006 10:34	8620.7	11	3.3	7.6	22.4	407.9	97.2	6.1
1/19/2006 13:37	8590.1	11.1	3.8	8.7	21.3	409.0	104.3	7.1
1/26/2006 14:09	8589.8	11	3.8	8.7	21.3	409.0	111.3	7.1
2/2/2006 11:22	8610.4	11	3.5	8.0	22.0	408.3	118.2	6.4
2/9/2006 12:26	8599.2	11	3.6	8.4	21.6	408.7	125.2	6.8
2/16/2006 11:16	8620.3	11	3.3	7.7	22.3	407.9	132.2	6.1
2/23/2006 14:15	8643.6	11	3.0	6.8	23.2	407.1	139.3	5.3
3/2/2006 11:50	8675.2	11	2.5	5.7	24.3	406.0	146.2	4.1
3/9/2006 15:16	8698	11.2	2.1	4.9	25.1	405.2	153.4	3.4
3/16/2006 14:07	8647.7	11	2.9	6.7	23.3	407.0	160.3	5.1
3/23/2006 14:59	8651.8	11.1	2.8	6.5	23.5	406.8	167.4	5.0
3/31/2006 15:29	8681.1	11	2.4	5.5	24.5	405.8	175.4	3.9
4/6/2006 13:52	8688.8	11	2.3	5.3	24.7	405.5	181.3	3.7
4/13/2006 16:04	8690.2	11	2.3	5.2	24.8	405.5	188.4	3.6
4/20/2006 15:56	8701.9	11	2.1	4.8	25.2	405.1	195.4	3.2
4/26/2006 14:35	8694.8	11	2.2	5.0	25.0	405.3	201.3	3.5
5/4/2006 14:08	8704.1	11	2.0	4.7	25.3	405.0	209.3	3.1
5/11/2006 15:08	8722.9	11	1.8	4.1	25.9	404.3	216.4	2.5
5/18/2006 14:48	8735.1	11	1.6	3.6	26.4	403.9	223.3	2.1
5/25/2006 14:36	8730.4	11	1.6	3.8	26.2	404.1	230.3	2.2
6/1/2006 14:22	8728.7	11	1.7	3.9	26.1	404.1	237.3	2.3
6/8/2006 14:37	8733.6	11	1.6	3.7	26.3	404.0	244.3	2.1
6/15/2006 13:37	8730.1	11	1.7	3.8	26.2	404.1	251.3	2.2
6/22/2006 13:53	8736.6	11	1.6	3.6	26.4	403.9	258.3	2.0
6/29/2006 15:21	8742.4	11	1.5	3.4	26.6	403.6	265.4	1.8
7/6/2006 15:13	8741.7	11	1.5	3.4	26.6	403.7	272.4	1.8
7/13/2006 14:51	8723.3	11	1.8	4.0	26.0	404.3	279.3	2.5
7/20/2006 10:33	8697.9	11	2.1	4.9	25.1	405.2	286.2	3.4
7/27/2006 10:14	8717.5	11	1.8	4.2	25.8	404.5	293.2	2.7
8/3/2006 9:57	8728.5	11	1.7	3.9	26.1	404.1	300.1	2.3
8/10/2006 13:44	8736.2	11	1.6	3.6	26.4	403.9	307.3	2.0
8/17/2006 15:36	8739.1	11	1.5	3.5	26.5	403.8	314.4	1.9
8/24/2006 15:16	8752.5	11	1.3	3.0	27.0	403.3	321.4	1.4
8/31/2006 10:05	8749.8	11.1	1.4	3.1	26.9	403.4	328.1	1.5
9/7/2006 14:50	8758.6	11	1.2	2.8	27.2	403.1	335.3	1.2
9/14/2006 14:49	8762.1	11	1.2	2.7	27.3	403.0	342.3	1.1
9/21/2006 17:20	8760.4	11	1.2	2.7	27.3	403.0	349.5	1.2
9/28/2006 15:31	8770.8	11	1.0	2.4	27.6	402.7	356.4	0.8
10/5/2006 15:49	8751.6	11	1.3	3.1	26.9	403.3	363.4	1.5
10/12/2006 14:58	8762.7	11	1.2	2.7	27.3	402.9	370.4	1.1
10/20/2006 14:24	8752.7	11.1	1.3	3.0	27.0	403.3	378.3	1.4
10/26/2006 15:17	8694.1	11	2.2	5.1	24.9	405.3	384.4	3.5
11/8/2006 13:04	8696.7	11	2.2	5.0	25.0	405.2	397.3	3.4
11/15/2006 16:28	8703	11	2.1	4.8	25.2	405.0	404.4	3.2
12/7/2006 15:21	8654.3	11	2.8	6.5	23.5	406.7	426.4	4.9

**Wastebed 13 Pilot Study**

**A-2 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/5/2005

Grout = 0 to 20.7 ft

Bentonite Seal = 20.7 to 25 ft

Depth to piezometer tip from ground surface = 30 ft

Ro = 8839.3

To = 15.6 degrees Celsius

Linear Gage Factor (psi) = 0.01517 psi/digit

Thermal Factor = 0.00142 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.27 ft

Piezometer Tip Elevation = 400.27 ft

Serial # 05-13904

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/14/2006 14:19	8686.7	11.1	2.3	5.3	24.7	405.6	433.3	3.7
12/21/2006 13:42	8694.8	11	2.2	5.0	25.0	405.3	440.3	3.5
12/28/2006 13:58	8668.4	11	2.6	6.0	24.0	406.2	447.3	4.4
1/11/2007 15:48	8639.6	11	3.0	7.0	23.0	407.2	461.4	5.4
2/22/2007 10:56	8757.9	11	1.2	2.8	27.2	403.1	503.2	1.3
3/7/2007 10:29	8731.6	11	1.6	3.8	26.2	404.0	516.2	2.2
4/12/2007 11:30	8582.8	11	3.9	9.0	21.0	409.2	552.2	7.4
5/10/2007 11:56	8627.2	11	3.2	7.4	22.6	407.7	580.2	5.8
6/21/2007 13:25	8776.5	11	0.9	2.2	27.8	402.5	622.3	0.6
7/12/2007 13:27	8784	11	0.8	1.9	28.1	402.2	643.3	0.3
8/15/2007 13:37	8790.7	11.2	0.7	1.7	28.3	402.0	677.3	0.1
9/20/2007 14:44	8787.2	11	0.8	1.8	28.2	402.1	713.3	0.2
10/25/2007 15:48	8786.4	11	0.8	1.8	28.2	402.1	748.4	0.3
11/28/2007 12:44	8710.9	10.9	1.9	4.5	25.5	404.7	782.3	2.9
12/28/2007 13:10	8659.7	11	2.7	6.3	23.7	406.5	812.3	4.7
3/6/2008 12:38	8653.8	11	2.8	6.5	23.5	406.7	881.3	4.9
6/13/2008 12:39	8763.7	10.9	1.1	2.6	27.4	402.9	980.3	1.0
9/18/2008 14:15	8775.2	11.1	1.0	2.2	27.8	402.5	1077.3	0.6

**Wastedbed 13 Pilot Study**

**A-2 (45 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/4/2005

Grout = 0 to 33.5 ft

Bentonite Seal = 33.5 to 40 ft

Depth to piezometer tip from ground surface = 45 ft

Ro = 8816.6

To = 18 degrees Celsius

Linear Gage Factor (psi) = 0.01413 psi/digit

Thermal Factor = 0.00406 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.34 ft

Piezometer Tip Elevation = 385.34 ft

Serial # 05-13906

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/4/2005 13:00	8672.7	12.4	2.0	4.6	40.4	390.0		
10/7/2005 6:30	8702.7	11.4	1.6	3.7	41.3	389.0	0	0
10/8/2005 9:06	8696.9	11.4	1.7	3.8	41.2	389.2	1.1	0.2
10/10/2005 8:08	8695.2	11.4	1.7	3.9	41.1	389.2	3.1	0.2
10/10/2005 11:47	8653.1	11.6	2.3	5.3	39.7	390.6	3.2	1.6
10/10/2005 16:50	8630	11.4	2.6	6.0	39.0	391.4	3.4	2.4
10/11/2005 7:34	8643.2	11.4	2.4	5.6	39.4	390.9	4.0	1.9
10/11/2005 11:30	8578.1	11.4	3.3	7.7	37.3	393.1	4.2	4.1
10/11/2005 16:35	8582.9	11.4	3.3	7.6	37.4	392.9	4.4	3.9
10/12/2005 7:55	8599.5	11.4	3.0	7.0	38.0	392.4	5.1	3.4
10/12/2005 14:16	8552.8	11.4	3.7	8.5	36.5	393.9	5.3	4.9
10/12/2005 17:12	8541.7	11.7	3.9	8.9	36.1	394.2	5.4	5.3
10/13/2005 8:58	8559.2	11	3.6	8.3	36.7	393.7	6.1	4.7
10/14/2005 10:16	8562.4	12.5	3.6	8.2	36.8	393.6	7.2	4.6
10/15/2005 7:50	8574.7	11.5	3.4	7.8	37.2	393.2	8.1	4.2
10/15/2005 13:10	8538.3	11.5	3.9	9.0	36.0	394.4	8.3	5.4
10/15/2005 14:17	8533.8	11.6	4.0	9.2	35.8	394.5	8.3	5.5
10/15/2005 16:48	8520.3	11.4	4.2	9.6	35.4	394.9	8.4	5.9
10/17/2005 13:18	8467.2	11.4	4.9	11.3	33.7	396.7	10.3	7.7
10/18/2005 8:16	8480.3	11.4	4.7	10.9	34.1	396.2	11.1	7.3
10/18/2005 15:14	8410.5	11.6	5.7	13.2	31.8	398.5	11.4	9.5
10/18/2005 15:54	8403.6	11.4	5.8	13.4	31.6	398.7	11.4	9.8
10/18/2005 17:29	8374.6	11.4	6.2	14.4	30.6	399.7	11.5	10.7
10/19/2005 8:15	8354.6	11.4	6.5	15.0	30.0	400.3	12.1	11.4
10/19/2005 10:14	8330.8	11.4	6.8	15.8	29.2	401.1	12.2	12.1
10/19/2005 13:48	8319.6	11.4	7.0	16.1	28.9	401.5	12.3	12.5
10/19/2005 17:08	8276.3	11.4	7.6	17.6	27.4	402.9	12.4	13.9
10/20/2005 8:11	8274.3	11.4	7.6	17.6	27.4	403.0	13.1	14.0
10/20/2005 13:46	8278.9	11.4	7.6	17.5	27.5	402.8	13.3	13.8
10/21/2005 8:03	8288	11.4	7.4	17.2	27.8	402.5	14.1	13.5
10/21/2005 13:08	8292.1	11.5	7.4	17.0	28.0	402.4	14.3	13.4
10/22/2005 9:09	8308.4	11.4	7.2	16.5	28.5	401.8	15.1	12.9
10/24/2005 15:35	8325.7	11.4	6.9	15.9	29.1	401.3	17.4	12.3
10/26/2005 16:38	8342.6	11.4	6.7	15.4	29.6	400.7	19.4	11.7
10/27/2005 15:21	8341.1	11.4	6.7	15.4	29.6	400.8	20.4	11.8
10/28/2005 15:57	8343	11.4	6.7	15.4	29.6	400.7	21.4	11.7
10/31/2005 10:58	8365.8	11.4	6.3	14.6	30.4	400.0	24.2	11.0
11/2/2005 15:02	8377.1	11.4	6.2	14.3	30.7	399.6	26.4	10.6
11/4/2005 11:37	8395.6	11.4	5.9	13.7	31.3	399.0	28.2	10.0
11/7/2005 15:12	8401.4	11.4	5.8	13.5	31.5	398.8	31.4	9.8
11/11/2005 13:35	8419.1	11.4	5.6	12.9	32.1	398.2	35.3	9.2
11/14/2005 16:39	8419.5	11.4	5.6	12.9	32.1	398.2	38.4	9.2
11/17/2005 15:28	8427.8	11.4	5.5	12.6	32.4	398.0	41.4	9.0
11/21/2005 12:21	8444.5	11.4	5.2	12.1	32.9	397.4	45.2	8.4
12/2/2005 12:00	8459.5	11.4	5.0	11.6	33.4	396.9	56.2	7.9
12/6/2005 14:51	8441	11.4	5.3	12.2	32.8	397.5	60.3	8.5
12/15/2005 14:42	8458.8	11.4	5.0	11.6	33.4	396.9	69.3	8.0
12/22/2005 15:21	8476.7	11.4	4.8	11.0	34.0	396.4	76.4	7.4

**Wastebed 13 Pilot Study**

**A-2 (45 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/4/2005

Grout =

Serial # 05-13906

0 to 33.5 ft

Bentonite Seal =

33.5 to 40 ft

Depth to piezometer tip from ground surface =

45 ft

Ro =

8816.6

To =

18 degrees Celsius

Linear Gage Factor (psi) =

0.01413 psi/digit

Thermal Factor =

0.00406 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.34 ft

Piezometer Tip Elevation =

385.34 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/29/2005 11:06	8504.6	11.4	4.4	10.1	34.9	395.5	83.2	6.5
1/5/2006 14:04	8495.6	11.4	4.5	10.4	34.6	395.7	90.3	6.8
1/12/2006 10:35	8461.1	11.4	5.0	11.5	33.5	396.9	97.2	7.9
1/19/2006 13:38	8427.5	11.3	5.5	12.6	32.4	398.0	104.3	9.0
1/26/2006 14:10	8413.7	11.4	5.7	13.1	31.9	398.4	111.3	9.4
2/2/2006 11:23	8434.3	11.5	5.4	12.4	32.6	397.7	118.2	8.8
2/9/2006 12:26	8425.9	11.5	5.5	12.7	32.3	398.0	125.2	9.0
2/16/2006 11:17	8433.5	11.3	5.4	12.4	32.6	397.8	132.2	8.8
2/23/2006 14:16	8458	11.3	5.0	11.6	33.4	397.0	139.3	8.0
3/2/2006 11:51	8487.3	11.5	4.6	10.7	34.3	396.0	146.2	7.0
3/9/2006 15:17	8515.4	11.3	4.2	9.8	35.2	395.1	153.4	6.1
3/16/2006 14:08	8494.2	11.3	4.5	10.4	34.6	395.8	160.3	6.8
3/23/2006 15:00	8482.4	11.3	4.7	10.8	34.2	396.2	167.4	7.2
3/31/2006 15:30	8506.6	11.3	4.4	10.0	35.0	395.4	175.4	6.4
4/6/2006 13:54	8516.5	11.3	4.2	9.7	35.3	395.1	181.3	6.1
4/13/2006 16:05	8523.1	11.3	4.1	9.5	35.5	394.8	188.4	5.9
4/20/2006 15:57	8534.9	11.3	4.0	9.1	35.9	394.5	195.4	5.5
4/26/2006 14:36	8538.7	11.3	3.9	9.0	36.0	394.3	201.3	5.3
5/4/2006 14:09	8541.5	11.3	3.9	8.9	36.1	394.2	209.3	5.3
5/11/2006 15:09	8560.5	11.3	3.6	8.3	36.7	393.6	216.4	4.6
5/18/2006 14:49	8580.2	11.3	3.3	7.6	37.4	393.0	223.3	4.0
5/25/2006 14:37	8573.9	11.3	3.4	7.9	37.1	393.2	230.3	4.2
6/1/2006 14:23	8573.6	11.3	3.4	7.9	37.1	393.2	237.3	4.2
6/8/2006 14:37	8583.4	11.3	3.3	7.5	37.5	392.9	244.3	3.9
6/15/2006 13:38	8582.3	11.2	3.3	7.6	37.4	392.9	251.3	3.9
6/22/2006 13:53	8591.6	11.2	3.2	7.3	37.7	392.6	258.3	3.6
6/29/2006 15:22	8600.2	11.2	3.0	7.0	38.0	392.3	265.4	3.3
7/6/2006 15:14	8602.2	11.3	3.0	6.9	38.1	392.3	272.4	3.3
7/13/2006 14:51	8600.8	11.2	3.0	7.0	38.0	392.3	279.3	3.3
7/20/2006 10:34	8566.8	11.3	3.5	8.1	36.9	393.4	286.2	4.4
7/27/2006 10:15	8575.4	11.2	3.4	7.8	37.2	393.1	293.2	4.1
8/3/2006 9:58	8587.1	11.3	3.2	7.4	37.6	392.8	300.1	3.8
8/10/2006 13:46	8596.5	11.2	3.1	7.1	37.9	392.5	307.3	3.5
8/17/2006 15:37	8599.2	11.2	3.0	7.0	38.0	392.4	314.4	3.4
8/24/2006 15:17	8618.9	11.2	2.8	6.4	38.6	391.7	321.4	2.7
8/31/2006 10:06	8618.1	11.2	2.8	6.4	38.6	391.7	328.1	2.8
9/7/2006 14:51	8630.9	11.2	2.6	6.0	39.0	391.3	335.3	2.3
9/14/2006 14:50	8638.3	11.2	2.5	5.8	39.2	391.1	342.3	2.1
9/21/2006 17:21	8640.7	11.3	2.5	5.7	39.3	391.0	349.5	2.0
9/28/2006 15:31	8655.4	11.2	2.3	5.2	39.8	390.5	356.4	1.5
10/5/2006 15:51	8636.1	11.3	2.5	5.8	39.2	391.2	363.4	2.2
10/12/2006 15:00	8652	11.2	2.3	5.3	39.7	390.6	370.4	1.7
10/20/2006 14:25	8642.3	11.4	2.4	5.6	39.4	391.0	378.3	2.0
10/26/2006 15:18	8565.7	11.2	3.5	8.1	36.9	393.5	384.4	4.5
11/8/2006 13:05	8545.9	11.2	3.8	8.8	36.2	394.1	397.3	5.1
11/15/2006 16:23	8545.2	11.2	3.8	8.8	36.2	394.1	404.4	5.1
12/7/2006 15:22	8499.8	11.2	4.4	10.3	34.7	395.6	426.4	6.6
12/14/2006 14:20	8519.4	11.2	4.2	9.6	35.4	395.0	433.3	6.0

**Wastebed 13 Pilot Study**

**A-2 (45 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/4/2005

Grout = 0 to 33.5 ft

Bentonite Seal = 33.5 to 40 ft

Depth to piezometer tip from ground surface = 45 ft

Ro = 8816.6

To = 18 degrees Celsius

Linear Gage Factor (psi) = 0.01413 psi/digit

Thermal Factor = 0.00406 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.34 ft

Piezometer Tip Elevation = 385.34 ft

Serial # 05-13906

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/21/2006 13:43	8524.3	11.2	4.1	9.5	35.5	394.8	440.3	5.8
12/28/2006 14:00	8517.3	11.2	4.2	9.7	35.3	395.0	447.3	6.0
1/11/2007 15:49	8487.2	11.2	4.6	10.7	34.3	396.0	461.4	7.0
2/22/2007 10:58	8613.6	11.3	2.8	6.6	38.4	391.9	503.2	2.9
3/7/2007 10:30	8604.9	11.2	3.0	6.8	38.2	392.2	516.2	3.2
4/12/2007 11:31	8404.2	11.2	5.8	13.4	31.6	398.7	552.2	9.7
5/10/2007 11:57	8423.5	11	5.5	12.8	32.2	398.1	580.2	9.1
6/21/2007 13:26	8644.5	11.3	2.4	5.5	39.5	390.9	622.3	1.9
7/12/2007 13:28	8684.9	11.1	1.8	4.2	40.8	389.6	643.3	0.6
8/15/2007 13:39	8716.2	11.1	1.4	3.2	41.8	388.5	677.3	-0.4
9/20/2007 14:45	8726	11.1	1.3	2.9	42.1	388.2	713.3	-0.8
10/25/2007 15:48	8726.8	11.1	1.2	2.9	42.1	388.2	748.4	-0.8
11/28/2007 12:44	8647.9	11.1	2.4	5.4	39.6	390.8	782.3	1.8
12/28/2007 13:10	8546	11	3.8	8.8	36.2	394.1	812.3	5.1
3/6/2008 12:38	8500.7	11.1	4.4	10.2	34.8	395.6	881.3	6.6
6/13/2008 12:39	8663.4	11.1	2.1	4.9	40.1	390.3	980.3	1.3
9/18/2008 14:15	8716.7	11.1	1.4	3.2	41.8	388.5	1077.3	-0.5

**Wastedbed 13 Pilot Study**

**A-3 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/21/2005

Grout = 0 to 6.8 ft

Bentonite Seal = 6.8 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 8888.8

To = 20.3 degrees Celsius

Linear Gage Factor (psi) = 0.01582 psi/digit

Thermal Factor = 0.010035 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.93 ft

Piezometer Tip Elevation = 415.43 ft

Serial # 04-12601

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/21/2005 15:55	8690.1	21.8	3.2	7.3	7.2	422.7		
9/21/2005 16:22	8795.5	20.9	1.5	3.4	11.1	418.9		
9/22/2005 7:53	8883.8	12.5	0.0	0.0	14.5	415.4		
10/7/2005 6:30	8891.1	10.1	-0.1	-0.3	>= 14.5 ft	NA	0	0
10/8/2005 8:56	8892.0	10.1	-0.2	-0.4	>= 14.5 ft	NA	1.1	0.0
10/10/2005 8:16	8886.4	10.1	-0.1	-0.1	>= 14.5 ft	NA	3.1	0.2
10/10/2005 11:45	8886.7	10	-0.1	-0.2	>= 14.5 ft	NA	3.2	0.2
10/10/2005 16:52	8887.6	10.1	-0.1	-0.2	>= 14.5 ft	NA	3.4	0.1
10/11/2005 8:05	8971.5	11	-1.4	-3.2	>= 14.5 ft	NA	4.1	-2.9
10/11/2005 11:46	8885.7	10.1	-0.1	-0.1	>= 14.5 ft	NA	4.2	0.2
10/11/2005 17:29	8885.9	10.1	-0.1	-0.1	>= 14.5 ft	NA	4.5	0.2
10/12/2005 8:52	8883.5	10.1	0.0	0.0	>= 14.5 ft	NA	5.1	0.3
10/12/2005 14:07	8882.8	10.1	0.0	0.0	>= 14.5 ft	NA	5.3	0.3
10/12/2005 17:14	8882.5	10.1	0.0	0.0	>= 14.5 ft	NA	5.4	0.3
10/13/2005 8:44	8883.2	10.3	0.0	0.0	>= 14.5 ft	NA	6.1	0.3
10/14/2005 10:31	8886.7	11.6	-0.1	-0.1	>= 14.5 ft	NA	7.2	0.2
10/15/2005 7:39	8885.7	10.2	-0.1	-0.1	>= 14.5 ft	NA	8.0	0.2
10/15/2005 12:50	8864.9	10.2	0.3	0.6	13.9	416.1	8.3	1.0
10/15/2005 16:34	8840.6	10.1	0.7	1.5	13.0	417.0	8.4	1.8
10/17/2005 7:57	8786.6	10.1	1.5	3.5	11.0	418.9	10.1	3.8
10/17/2005 12:55	8780.2	10.1	1.6	3.7	10.8	419.2	10.3	4.0
10/18/2005 7:50	8787.1	10.1	1.5	3.5	11.0	418.9	11.1	3.8
10/18/2005 15:01	8752.5	10.1	2.1	4.7	9.8	420.2	11.4	5.1
10/18/2005 17:34	8719.6	10.1	2.6	5.9	8.6	421.4	11.5	6.3
10/19/2005 7:52	8728	10.1	2.4	5.6	8.9	421.1	12.1	6.0
10/19/2005 13:24	8670	10.1	3.4	7.8	6.7	423.2	12.3	8.1
10/19/2005 17:26	8652.4	10.1	3.6	8.4	6.1	423.8	12.5	8.7
10/20/2005 8:18	8682.5	10.1	3.2	7.3	7.2	422.7	13.1	7.6
10/20/2005 13:53	8691.1	10.1	3.0	7.0	7.5	422.4	13.3	7.3
10/21/2005 7:54	8714.4	10.2	2.7	6.1	8.4	421.6	14.1	6.5
10/21/2005 12:53	8718.7	10.2	2.6	6.0	8.5	421.4	14.3	6.3
10/22/2005 8:32	8739	10.2	2.3	5.2	9.3	420.7	15.1	5.6
10/24/2005 15:15	8743.2	10.1	2.2	5.1	9.4	420.5	17.4	5.4
10/26/2005 16:11	8710.8	10.2	2.7	6.3	8.2	421.7	19.4	6.6
10/27/2005 14:48	8712	10.1	2.7	6.2	8.3	421.6	20.3	6.5
10/28/2005 15:33	8720.1	10.1	2.6	5.9	8.6	421.4	21.4	6.2
10/31/2005 10:38	8744.9	10.1	2.2	5.0	9.5	420.4	24.2	5.3
11/2/2005 14:44	8761	10.2	1.9	4.4	10.1	419.9	26.3	4.8
11/4/2005 11:10	8770.9	10.2	1.8	4.1	10.4	419.5	28.2	4.4
11/7/2005 14:45	8775.3	10.2	1.7	3.9	10.6	419.3	31.3	4.2
11/11/2005 13:51	8764.8	10.2	1.9	4.3	10.2	419.7	35.3	4.6
11/14/2005 16:45	8756.1	10.3	2.0	4.6	9.9	420.0	38.4	4.9
11/17/2005 15:21	8705.5	10.3	2.8	6.5	8.0	421.9	41.4	6.8
11/21/2005 12:15	8741.7	10.3	2.2	5.1	9.4	420.6	45.2	5.5
12/2/2005 11:42	8722.7	10.5	2.5	5.8	8.7	421.3	56.2	6.2

**Wastedbed 13 Pilot Study**

**A-3 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/21/2005

Grout =

0 to 6.8 ft

Bentonite Seal =

6.8 to 11.5 ft

Sandpack =

11.5 to 15 ft

Depth to piezometer tip from ground surface =

14.5 ft

Ro =

8888.8

To =

20.3 degrees Celsius

Linear Gage Factor (psi) =

0.01582 psi/digit

Thermal Factor =

0.010035 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.93 ft

Piezometer Tip Elevation =

415.43 ft

Serial # 04-12601

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/6/2005 14:43	8733.5	10.4	2.4	5.4	9.1	420.9	60.3	5.8
12/15/2005 14:26	8762.6	10.5	1.9	4.4	10.1	419.8	69.3	4.7
12/22/2005 15:09	8784.8	10.5	1.5	3.6	10.9	419.0	76.4	3.9
12/29/2005 10:53	8768.3	10.6	1.8	4.2	10.3	419.6	83.2	4.5
1/5/2006 13:53	8743.6	10.6	2.2	5.1	9.4	420.5	90.3	5.4
1/12/2006 10:27	8704.5	10.6	2.8	6.5	8.0	421.9	97.2	6.8
1/19/2006 13:27	8704.6	10.6	2.8	6.5	8.0	421.9	104.3	6.8
1/26/2006 13:58	8712.9	10.7	2.7	6.2	8.3	421.6	111.3	6.5
2/2/2006 11:14	8710.4	10.7	2.7	6.3	8.2	421.7	118.2	6.6
2/9/2006 12:16	8706.7	10.7	2.8	6.4	8.1	421.9	125.2	6.7
2/16/2006 11:08	8730.3	10.8	2.4	5.6	8.9	421.0	132.2	5.9
2/23/2006 14:05	8748.6	10.8	2.1	4.9	9.6	420.3	139.3	5.2
3/2/2006 11:42	8777.2	10.8	1.7	3.9	10.6	419.3	146.2	4.2
3/9/2006 15:08	8799.1	10.8	1.3	3.1	11.4	418.5	153.4	3.4
3/16/2006 13:58	8719.9	10.8	2.6	5.9	8.6	421.4	160.3	6.3
3/23/2006 14:49	8750.8	10.8	2.1	4.8	9.7	420.2	167.3	5.1
3/31/2006 15:20	8771.8	10.8	1.8	4.1	10.4	419.5	175.4	4.4
4/6/2006 13:44	8781.3	10.8	1.6	3.7	10.8	419.1	181.3	4.0
4/13/2006 15:56	8778.4	10.8	1.7	3.8	10.7	419.2	188.4	4.1
4/20/2006 15:48	8793.8	10.8	1.4	3.2	11.3	418.7	195.4	3.6
4/26/2006 14:26	8765.5	10.8	1.9	4.3	10.2	419.7	201.3	4.6
5/4/2006 14:01	8789.6	10.8	1.5	3.4	11.1	418.8	209.3	3.7
5/11/2006 14:59	8810.7	10.7	1.1	2.6	11.9	418.1	216.4	2.9
5/18/2006 14:08	8825.2	10.7	0.9	2.1	12.4	417.5	223.3	2.4
5/25/2006 14:27	8815.1	10.7	1.1	2.5	12.0	417.9	230.3	2.8
6/1/2006 14:15	8814.5	10.7	1.1	2.5	12.0	417.9	237.3	2.8
6/8/2006 14:30	8817.4	10.7	1.0	2.4	12.1	417.8	244.3	2.7
6/15/2006 13:29	8816.8	10.6	1.0	2.4	12.1	417.8	251.3	2.7
6/22/2006 13:44	8823.2	10.6	0.9	2.2	12.3	417.6	258.3	2.5
6/29/2006 15:12	8826.5	10.6	0.9	2.0	12.5	417.5	265.4	2.4
7/6/2006 15:04	8829.7	10.6	0.8	1.9	12.6	417.4	272.4	2.3
7/13/2006 14:43	8720	10.5	2.6	5.9	8.6	421.4	279.3	6.3
7/20/2006 10:25	8772.8	10.7	1.7	4.0	10.5	419.4	286.2	4.3
7/27/2006 10:05	8802.9	10.5	1.3	2.9	11.6	418.3	293.1	3.2
8/3/2006 9:48	8812.9	10.5	1.1	2.5	12.0	418.0	300.1	2.9
8/10/2006 13:36	8810.8	10.5	1.1	2.6	11.9	418.1	307.3	2.9
8/17/2006 15:28	8812.1	10.5	1.1	2.6	11.9	418.0	314.4	2.9
8/24/2006 15:09	8827.1	10.5	0.9	2.0	12.5	417.5	321.4	2.3
8/31/2006 9:57	8829.9	10.4	0.8	1.9	12.6	417.4	328.1	2.2
9/7/2006 14:40	8835.9	10.4	0.7	1.7	12.8	417.1	335.3	2.0
9/14/2006 14:40	8843.9	10.5	0.6	1.4	13.1	416.8	342.3	1.7
9/21/2006 17:13	8844.4	10.4	0.6	1.4	13.1	416.8	349.4	1.7
9/28/2006 15:24	8851	10.7	0.5	1.2	13.3	416.6	356.4	1.5
10/5/2006 15:40	8810	10.5	1.1	2.6	11.9	418.1	363.4	3.0
10/12/2006 14:46	8832.4	10.5	0.8	1.8	12.7	417.3	370.3	2.2

**Wastedbed 13 Pilot Study**

**A-3 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/21/2005

Grout = 0 to 6.8 ft

Bentonite Seal = 6.8 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 8888.8

To = 20.3 degrees Celsius

Linear Gage Factor (psi) = 0.01582 psi/digit

Thermal Factor = 0.010035 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.93 ft

Piezometer Tip Elevation = 415.43 ft

Serial # 04-12601

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/20/2006 14:16	8768.2	11.1	1.8	4.2	10.3	419.6	378.3	4.5
10/26/2006 15:06	8735.8	10.5	2.3	5.4	9.1	420.8	384.4	5.7
11/8/2006 12:57	8768	10.6	1.8	4.2	10.3	419.6	397.3	4.5
11/15/2006 16:12	8760.6	10.7	1.9	4.5	10.0	419.9	404.4	4.8
12/7/2006 15:10	8728.9	10.7	2.4	5.6	8.9	421.0	426.4	5.9
12/14/2006 14:09	8759.6	10.8	1.9	4.5	10.0	419.9	433.3	4.8
12/21/2006 13:31	8769.2	10.8	1.8	4.1	10.4	419.6	440.3	4.5
12/28/2006 13:47	8711.3	10.9	2.7	6.3	8.2	421.7	447.3	6.6
1/11/2007 15:34	8697.4	11	2.9	6.8	7.7	422.2	461.4	7.1
3/7/2007 10:55	8773.8	11.2	1.7	4.0	10.5	419.4	516.2	4.3
4/12/2007 11:23	8647.3	11.3	3.7	8.6	5.9	424.0	552.2	8.9
5/10/2007 11:48	8690	11.2	3.1	7.0	7.5	422.5	580.2	7.4
6/21/2007 13:16	8824.4	11.6	0.9	2.1	12.4	417.6	622.3	2.5
7/12/2007 13:18	8857	10.9	0.4	0.9	13.6	416.4	643.3	1.3
8/15/2007 13:28	8876.9	10.8	0.1	0.2	14.3	415.6	677.3	0.5
9/20/2007 14:34	8879.6	10.8	0.1	0.1	14.4	415.5	713.3	0.4
10/25/2007 15:15	8869.7	10.8	0.2	0.5	14.0	415.9	748.4	0.8
11/28/2007 12:36	8749.9	11.1	2.1	4.9	9.6	420.3	782.3	5.2
12/28/2007 12:58	8718.8	11.2	2.6	6.0	8.5	421.4	812.3	6.3
3/6/2008 12:29	8694.8	11.5	3.0	6.9	7.6	422.3	881.2	7.2
6/13/2008 12:30	8825.5	11.3	0.9	2.1	12.4	417.5	980.3	2.4
9/18/2008 14:07	8864.7	11.1	0.3	0.7	13.8	416.1	1077.3	1.0

**Wastedbed 13 Pilot Study**

**A-3 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/21/2005

Grout =

Serial # 04-12606

0 to 21.4 ft

Bentonite Seal =

21.4 to 26.5 ft

Sandpack =

26.5 to 30 ft

Depth to piezometer tip from ground surface =

29.5 ft

Ro =

9050.4

To =

16.2 degrees Celsius

Linear Gage Factor (psi) =

0.01595 psi/digit

Thermal Factor =

0.008498 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.61 ft

Piezometer Tip Elevation =

400.11 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/21/2005 11:40	8518	15.3	8.5	19.6	9.9	419.7		
9/21/2005 12:55	8660	13.9	6.2	14.3	15.2	414.4		
9/21/2005 16:33	8977.5	12	1.1	2.6	26.9	402.7		
9/22/2005 9:22	8987.8	11.6	1.0	2.2	27.3	402.3		
10/7/2005 6:30	8984.7	11	1.0	2.3	27.2	402.4	0	0
10/8/2005 8:55	8984.9	11	1.0	2.3	27.2	402.4	1.1	0.0
10/10/2005 8:17	8980.1	11	1.1	2.5	27.0	402.6	3.1	0.2
10/10/2005 11:44	8978.5	11	1.1	2.5	27.0	402.7	3.2	0.2
10/10/2005 16:53	8972.8	11	1.2	2.8	26.7	402.9	3.4	0.4
10/11/2005 8:04	8885.9	10.1	2.6	5.9	23.6	406.0	4.1	3.6
10/11/2005 11:45	8946.4	11	1.6	3.7	25.8	403.8	4.2	1.4
10/11/2005 17:26	8897.5	11.0	2.4	5.5	24.0	405.6	4.5	3.2
10/12/2005 8:50	8921.8	11	2.0	4.6	24.9	404.7	5.1	2.3
10/12/2005 14:07	8917.2	11	2.1	4.8	24.7	404.9	5.3	2.5
10/12/2005 17:15	8893.4	11.4	2.5	5.7	23.8	405.8	5.4	3.4
10/13/2005 8:46	8902.8	11	2.3	5.3	24.2	405.4	6.1	3.0
10/14/2005 10:32	8917.3	12.3	2.1	4.8	24.7	404.9	7.2	2.5
10/15/2005 7:40	8933.1	11	1.8	4.2	25.3	404.3	8.0	1.9
10/15/2005 12:50	8927.1	11	1.9	4.4	25.1	404.5	8.3	2.1
10/15/2005 16:31	8893.1	11	2.5	5.7	23.8	405.8	8.4	3.4
10/17/2005 7:59	8871.7	11	2.8	6.5	23.0	406.6	10.1	4.2
10/17/2005 12:56	8853.5	11	3.1	7.1	22.4	407.3	10.3	4.8
10/18/2005 7:50	8877.8	11	2.7	6.3	23.2	406.4	11.1	3.9
10/18/2005 15:02	8818.8	11	3.6	8.4	21.1	408.5	11.4	6.1
10/18/2005 17:34	8771.2	11	4.4	10.2	19.3	410.3	11.5	7.9
10/19/2005 7:52	8779.2	11	4.3	9.9	19.6	410.0	12.1	7.6
10/19/2005 13:24	8696.4	11	5.6	12.9	16.6	413.0	12.3	10.6
10/19/2005 17:27	8695.7	11	5.6	13.0	16.5	413.1	12.5	10.6
10/20/2005 8:18	8705	11	5.5	12.6	16.9	412.7	13.1	10.3
10/20/2005 13:54	8710.9	11	5.4	12.4	17.1	412.5	13.3	10.1
10/21/2005 7:55	8726.2	11	5.1	11.8	17.7	411.9	14.1	9.5
10/21/2005 12:54	8733.5	11	5.0	11.6	17.9	411.7	14.3	9.2
10/22/2005 8:33	8755.6	11	4.7	10.7	18.8	410.9	15.1	8.4
10/24/2005 15:16	8781.1	11	4.3	9.8	19.7	409.9	17.4	7.5
10/26/2005 16:13	8798.6	11	4.0	9.2	20.3	409.3	19.4	6.8
10/27/2005 14:49	8796.2	11	4.0	9.3	20.2	409.4	20.3	6.9
10/28/2005 15:34	8798.3	11	4.0	9.2	20.3	409.3	21.4	6.9
10/31/2005 10:39	8827	10.9	3.5	8.1	21.4	408.2	24.2	5.8
11/2/2005 14:45	8833.1	10.9	3.4	7.9	21.6	408.0	26.3	5.6
11/4/2005 11:10	8849	10.9	3.2	7.3	22.2	407.4	28.2	5.0
11/7/2005 14:46	8851.3	10.9	3.1	7.2	22.3	407.3	31.3	4.9
11/11/2005 13:52	8869.5	10.9	2.8	6.6	22.9	406.7	35.3	4.2
11/14/2005 16:45	8866.9	10.9	2.9	6.7	22.8	406.8	38.4	4.3
11/17/2005 15:22	8866.6	10.9	2.9	6.7	22.8	406.8	41.4	4.3

**Wastedbed 13 Pilot Study**

**A-3 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/21/2005

Grout =

0 to 21.4 ft

Bentonite Seal =

21.4 to 26.5 ft

Sandpack =

26.5 to 30 ft

Depth to piezometer tip from ground surface =

29.5 ft

Ro =

9050.4

To =

16.2 degrees Celsius

Linear Gage Factor (psi) =

0.01595 psi/digit

Thermal Factor =

0.008498 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.61 ft

Piezometer Tip Elevation =

400.11 ft

Serial # 04-12606

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/21/2005 12:15	8883.9	10.9	2.6	6.0	23.5	406.1	45.2	3.7
12/2/2005 11:43	8890.3	10.9	2.5	5.8	23.7	405.9	56.2	3.5
12/6/2005 14:44	8886.1	10.9	2.6	5.9	23.6	406.1	60.3	3.6
12/15/2005 14:28	8907	10.9	2.2	5.2	24.3	405.3	69.3	2.9
12/22/2005 15:10	8919.9	10.9	2.0	4.7	24.8	404.8	76.4	2.4
12/29/2005 10:55	8936.9	10.9	1.8	4.1	25.4	404.2	83.2	1.8
1/5/2006 13:54	8923.4	10.9	2.0	4.6	24.9	404.7	90.3	2.3
1/12/2006 10:28	8897.2	10.9	2.4	5.5	24.0	405.6	97.2	3.2
1/19/2006 13:28	8865	10.9	2.9	6.7	22.8	406.8	104.3	4.4
1/26/2006 13:59	8866.1	11	2.9	6.7	22.8	406.8	111.3	4.4
2/2/2006 11:16	8899.5	10.9	2.4	5.5	24.0	405.6	118.2	3.1
2/9/2006 12:17	8886.8	11	2.6	5.9	23.6	406.0	125.2	3.6
2/16/2006 11:09	8899.2	10.9	2.4	5.5	24.0	405.6	132.2	3.1
2/23/2006 14:06	8919.8	10.9	2.0	4.7	24.8	404.8	139.3	2.4
3/2/2006 11:42	8942	11	1.7	3.9	25.6	404.0	146.2	1.6
3/9/2006 15:09	8958.9	10.9	1.4	3.3	26.2	403.4	153.4	0.9
3/16/2006 13:59	8916.5	10.9	2.1	4.8	24.7	404.9	160.3	2.5
3/23/2006 14:50	8921	10.9	2.0	4.7	24.8	404.8	167.3	2.3
3/31/2006 15:21	8944.4	10.9	1.6	3.8	25.7	403.9	175.4	1.5
4/6/2006 13:45	8947.8	10.8	1.6	3.7	25.8	403.8	181.3	1.4
4/13/2006 15:56	8948.1	10.8	1.6	3.7	25.8	403.8	188.4	1.3
4/20/2006 15:49	8956.5	10.9	1.5	3.4	26.1	403.5	195.4	1.0
4/26/2006 14:27	8948.3	10.8	1.6	3.7	25.8	403.8	201.3	1.3
5/4/2006 14:01	8959.7	10.8	1.4	3.2	26.3	403.3	209.3	0.9
5/11/2006 15:00	8973.2	10.9	1.2	2.7	26.8	402.8	216.4	0.4
5/18/2006 14:09	8979.5	10.8	1.1	2.5	27.0	402.6	223.3	0.2
5/25/2006 14:28	8977.1	10.8	1.1	2.6	26.9	402.7	230.3	0.3
6/1/2006 14:16	8975.7	10.9	1.1	2.6	26.9	402.8	237.3	0.3
6/8/2006 14:31	8978.6	10.9	1.1	2.5	27.0	402.6	244.3	0.2
6/15/2006 13:30	8974.2	10.8	1.2	2.7	26.8	402.8	251.3	0.4
6/22/2006 13:45	8980.9	10.8	1.1	2.5	27.0	402.6	258.3	0.1
6/29/2006 15:13	8986	10.9	1.0	2.3	27.2	402.4	265.4	0.0
7/6/2006 15:04	8983.3	10.9	1.0	2.4	27.1	402.5	272.4	0.0
7/13/2006 14:44	8965.3	10.9	1.3	3.0	26.5	403.1	279.3	0.7
7/20/2006 10:26	8946.5	10.9	1.6	3.7	25.8	403.8	286.2	1.4
7/27/2006 10:06	8962.4	10.9	1.4	3.1	26.4	403.2	293.1	0.8
8/3/2006 9:50	8969.1	10.9	1.3	2.9	26.6	403.0	300.1	0.6
8/10/2006 13:37	8974.3	10.9	1.2	2.7	26.8	402.8	307.3	0.4
8/17/2006 15:29	8976.3	10.9	1.1	2.6	26.9	402.7	314.4	0.3
8/24/2006 15:09	8985.4	10.9	1.0	2.3	27.2	402.4	321.4	0.0
9/1/2006 13:24	8985.8	10.9	1.0	2.3	27.2	402.4	329.3	0.0
9/7/2006 14:42	8990.2	11	0.9	2.1	27.4	402.2	335.3	-0.2
9/14/2006 14:41	8992.5	10.9	0.9	2.0	27.5	402.1	342.3	-0.3
9/21/2006 17:13	8987.4	10.9	1.0	2.2	27.3	402.3	349.4	-0.1
9/28/2006 15:25	8999.4	11	0.8	1.8	27.7	401.9	356.4	-0.5

**Wastedbed 13 Pilot Study**

**A-3 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/21/2005

Grout =

0 to 21.4 ft

Bentonite Seal =

21.4 to 26.5 ft

Sandpack =

26.5 to 30 ft

Depth to piezometer tip from ground surface =

29.5 ft

Ro =

9050.4

To =

16.2 degrees Celsius

Linear Gage Factor (psi) =

0.01595 psi/digit

Thermal Factor =

0.008498 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.61 ft

Piezometer Tip Elevation =

400.11 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/5/2006 15:40	8985.6	10.9	1.0	2.3	27.2	402.4	363.4	0.0
10/12/2006 14:47	8995.2	10.9	0.8	1.9	27.6	402.0	370.3	-0.4
10/20/2006 14:17	8982.6	11	1.0	2.4	27.1	402.5	378.3	0.1
10/26/2006 15:07	8936.9	10.9	1.8	4.1	25.4	404.2	384.4	1.8
11/8/2006 12:58	8940.8	10.9	1.7	3.9	25.6	404.0	397.3	1.6
11/15/2006 16:14	8941.5	10.9	1.7	3.9	25.6	404.0	404.4	1.6
12/7/2006 15:11	8901.4	10.9	2.3	5.4	24.1	405.5	426.4	3.1
12/14/2006 14:10	8933.3	10.9	1.8	4.2	25.3	404.3	433.3	1.9
12/21/2006 13:32	8937	10.9	1.8	4.1	25.4	404.2	440.3	1.8
12/28/2006 13:48	8914.6	10.9	2.1	4.9	24.6	405.0	447.3	2.6
1/11/2007 15:35	8891.6	10.9	2.5	5.7	23.8	405.9	461.4	3.4
3/7/2007 10:56	8959.8	10.9	1.4	3.2	26.3	403.3	516.2	0.9
4/12/2007 11:24	8848.1	10.9	3.2	7.3	22.2	407.5	552.2	5.0
5/10/2007 11:49	8874.1	10.8	2.8	6.4	23.1	406.5	580.2	4.1
6/21/2007 13:17	9003.9	11.7	0.7	1.6	27.9	401.7	622.3	-0.7
7/12/2007 13:19	9009.7	11	0.6	1.4	28.1	401.5	643.3	-0.9
8/15/2007 13:30	9011.3	10.9	0.6	1.3	28.2	401.4	677.3	-1.0
9/20/2007 14:35	8995.4	11	0.8	1.9	27.6	402.0	713.3	-0.4
10/25/2007 15:16	8986.1	11	1.0	2.3	27.2	402.4	748.4	-0.1
11/28/2007 12:36	8932.8	11	1.8	4.2	25.3	404.3	782.3	1.9
12/28/2007 12:58	8896.7	10.9	2.4	5.6	23.9	405.7	812.3	3.2
3/6/2008 12:29	8886.1	11	2.6	5.9	23.6	406.1	881.2	3.6
6/13/2008 12:30	8979.7	11.9	1.1	2.5	27.0	402.6	980.3	0.2
9/18/2008 14:07	8972.3	11.1	1.2	2.8	26.7	402.9	1077.3	0.5

### Wastebed 13 Pilot Study

#### A-3 (Native)

Typical Vibrating Wire Piezometer

Date Installed: 9/20/2005

Grout =

0 to 63.3 ft

Bentonite Seal =

63.3 to 75.5 ft

Sandpack =

75.5 to 79 ft

Depth to piezometer tip from ground surface =

78.5 ft

Ro =

8703.2

To =

19.2 degrees Celsius

Linear Gage Factor (psi) =

0.01443 psi/digit

Thermal Factor =

0.00276 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.86 ft

Piezometer Tip Elevation =

351.36 ft

Serial # 05-13902

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/20/2005 13:46	7926.6	18.7	11.2	25.9	52.6	377.2		
9/20/2005 14:23	7705.2	18.3	14.4	33.2	45.3	384.6		
9/21/2005 16:29	8069.0	12.2	9.1	21.1	57.4	372.4		
9/22/2005 7:52	8070.5	11.7	9.1	21.0	57.5	372.4		
10/7/2005 6:30	8075.5	10.5	9.0	20.8	57.7	372.2	0	0
10/8/2005 8:53	8072.0	10.6	9.1	21.0	57.5	372.3	1.1	0.1
10/10/2005 8:15	8062.4	10.8	9.2	21.3	57.2	372.6	3.1	0.4
10/10/2005 11:43	8062.6	10.5	9.2	21.3	57.2	372.6	3.2	0.4
10/10/2005 16:54	8063.6	10.5	9.2	21.2	57.3	372.6	3.4	0.4
10/11/2005 8:03	8062.4	10.6	9.2	21.3	57.2	372.6	4.1	0.4
10/11/2005 11:45	8061.9	10.5	9.2	21.3	57.2	372.7	4.2	0.5
10/11/2005 17:30	8062.3	10.6	9.2	21.3	57.2	372.6	4.5	0.4
10/12/2005 8:54	8060.3	10.5	9.3	21.4	57.1	372.7	5.1	0.5
10/12/2005 14:05	8059.3	10.5	9.3	21.4	57.1	372.7	5.3	0.5
10/12/2005 17:16	8059.6	10.8	9.3	21.4	57.1	372.7	5.4	0.5
10/13/2005 8:47	8060	10.6	9.3	21.4	57.1	372.7	6.1	0.5
10/14/2005 10:33	8060.2	11.6	9.3	21.4	57.1	372.7	7.2	0.5
10/15/2005 7:41	8067.1	10.5	9.2	21.1	57.4	372.5	8.0	0.3
10/15/2005 12:53	8069.6	10.6	9.1	21.0	57.5	372.4	8.3	0.2
10/15/2005 16:34	8069.7	10.5	9.1	21.0	57.5	372.4	8.4	0.2
10/17/2005 8:01	8063.2	10.5	9.2	21.3	57.2	372.6	10.1	0.4
10/17/2005 12:57	8063	10.5	9.2	21.3	57.2	372.6	10.3	0.4
10/18/2005 7:51	8071.2	10.5	9.1	21.0	57.5	372.4	11.1	0.1
10/18/2005 15:10	8069	10.5	9.1	21.1	57.4	372.4	11.4	0.2
10/18/2005 17:33	8066.7	10.5	9.2	21.1	57.4	372.5	11.5	0.3
10/19/2005 7:53	8062.4	10.6	9.2	21.3	57.2	372.6	12.1	0.4
10/19/2005 13:24	8070.1	10.5	9.1	21.0	57.5	372.4	12.3	0.2
10/19/2005 17:28	8066.9	10.5	9.2	21.1	57.4	372.5	12.5	0.3
10/20/2005 8:17	8056.4	10.5	9.3	21.5	57.0	372.8	13.1	0.6
10/20/2005 13:54	8057.1	10.5	9.3	21.5	57.0	372.8	13.3	0.6
10/21/2005 7:56	8055.8	10.5	9.3	21.5	57.0	372.9	14.1	0.7
10/21/2005 12:55	8056.4	10.5	9.3	21.5	57.0	372.8	14.3	0.6
10/22/2005 8:35	8063.9	10.5	9.2	21.2	57.3	372.6	15.1	0.4
10/24/2005 15:17	8056	10.5	9.3	21.5	57.0	372.9	17.4	0.6
10/26/2005 16:13	8049.2	10.6	9.4	21.7	56.8	373.1	19.4	0.9
10/27/2005 14:50	8034.3	10.6	9.6	22.2	56.3	373.6	20.3	1.4
10/28/2005 15:35	8028.7	10.6	9.7	22.4	56.1	373.8	21.4	1.6
10/31/2005 10:39	8037.3	10.6	9.6	22.1	56.4	373.5	24.2	1.3
11/2/2005 14:46	8039.1	10.6	9.6	22.1	56.4	373.4	26.3	1.2
11/4/2005 11:11	8049.4	10.6	9.4	21.7	56.8	373.1	28.2	0.9
11/7/2005 14:47	8042.6	10.6	9.5	21.9	56.6	373.3	31.3	1.1
11/11/2005 13:53	8038.8	10.6	9.6	22.1	56.4	373.4	35.3	1.2
11/14/2005 16:46	8030.0	10.6	9.7	22.4	56.1	373.7	38.4	1.5

**Wastedbed 13 Pilot Study**

**A-3 (Native)**

Typical Vibrating Wire Piezometer

Date Installed: 9/20/2005

Grout =

0 to 63.3 ft

Bentonite Seal =

63.3 to 75.5 ft

Sandpack =

75.5 to 79 ft

Depth to piezometer tip from ground surface =

78.5 ft

Ro =

8703.2

To =

19.2 degrees Celsius

Linear Gage Factor (psi) =

0.01443 psi/digit

Thermal Factor =

0.00276 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.86 ft

Piezometer Tip Elevation =

351.36 ft

Serial # 05-13902

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/17/2005 15:22	8028.7	10.6	9.7	22.4	56.1	373.8	41.4	1.6
11/21/2005 12:16	8039.2	10.6	9.6	22.1	56.4	373.4	45.2	1.2
12/2/2005 11:44	8025.9	10.6	9.7	22.5	56.0	373.9	56.2	1.7
12/6/2005 14:45	8003.8	10.6	10.1	23.2	55.3	374.6	60.3	2.4
12/15/2005 14:29	8010.6	10.6	10.0	23.0	55.5	374.4	69.3	2.2
12/22/2005 15:11	8020.9	10.5	9.8	22.7	55.8	374.0	76.4	1.8
12/29/2005 10:56	8032.4	10.5	9.7	22.3	56.2	373.6	83.2	1.4
1/5/2006 13:55	8022.7	10.5	9.8	22.6	55.9	374.0	90.3	1.8
1/12/2006 10:29	8005.5	10.5	10.0	23.2	55.3	374.5	97.2	2.3
1/19/2006 13:29	7986.6	10.5	10.3	23.8	54.7	375.2	104.3	3.0
1/26/2006 14:00	7980.2	10.5	10.4	24.0	54.5	375.4	111.3	3.2
2/2/2006 11:17	7995.0	10.5	10.2	23.5	55.0	374.9	118.2	2.7
2/9/2006 12:18	7987.1	10.5	10.3	23.8	54.7	375.2	125.2	2.9
2/16/2006 11:10	7991.7	10.5	10.2	23.6	54.9	375.0	132.2	2.8
2/23/2006 14:08	8010.0	10.5	10.0	23.0	55.5	374.4	139.3	2.2
3/2/2006 11:43	8024.8	10.5	9.8	22.5	56.0	373.9	146.2	1.7
3/9/2006 15:10	8037.1	10.5	9.6	22.1	56.4	373.5	153.4	1.3
3/16/2006 14:00	8008.7	10.5	10.0	23.1	55.4	374.4	160.3	2.2
3/23/2006 14:51	8010.2	10.5	10.0	23.0	55.5	374.4	167.3	2.2
3/31/2006 15:22	8029.0	10.5	9.7	22.4	56.1	373.8	175.4	1.5
4/6/2006 13:46	8031.6	10.5	9.7	22.3	56.2	373.7	181.3	1.5
4/13/2006 15:57	8032.7	10.5	9.7	22.3	56.2	373.6	188.4	1.4
4/20/2006 15:49	8036.4	10.5	9.6	22.1	56.4	373.5	195.4	1.3
4/26/2006 14:28	8037.7	10.5	9.6	22.1	56.4	373.5	201.3	1.3
5/4/2006 14:02	8045.7	10.5	9.5	21.8	56.7	373.2	209.3	1.0
5/11/2006 15:01	8055.7	10.5	9.3	21.5	57.0	372.9	216.4	0.7
5/18/2006 14:42	8064.5	10.5	9.2	21.2	57.3	372.6	223.3	0.4
5/25/2006 14:29	8054.7	10.6	9.3	21.5	57.0	372.9	230.3	0.7
6/1/2006 14:17	8052.8	10.5	9.4	21.6	56.9	373.0	237.3	0.8
6/8/2006 14:32	8053.0	10.5	9.4	21.6	56.9	373.0	244.3	0.7
6/15/2006 13:31	8048.9	10.5	9.4	21.7	56.8	373.1	251.3	0.9
6/22/2006 13:46	8056.3	10.5	9.3	21.5	57.0	372.8	258.3	0.6
6/29/2006 15:14	8057.0	10.5	9.3	21.5	57.0	372.8	265.4	0.6
7/6/2006 15:05	8053.2	10.5	9.4	21.6	56.9	372.9	272.4	0.7
7/13/2006 14:44	8041.2	10.5	9.5	22.0	56.5	373.3	279.3	1.1
7/20/2006 10:26	8034.5	10.5	9.6	22.2	56.3	373.6	286.2	1.4
7/27/2006 10:06	8041.5	10.5	9.5	22.0	56.5	373.3	293.1	1.1
8/3/2006 9:50	8038.0	10.5	9.6	22.1	56.4	373.5	300.1	1.2
8/10/2006 13:38	8040.7	10.4	9.5	22.0	56.5	373.4	307.3	1.2
8/17/2006 15:30	8043.9	10.4	9.5	21.9	56.6	373.3	314.4	1.1
8/24/2006 15:10	8059.7	10.6	9.3	21.4	57.1	372.7	321.4	0.5
8/31/2006 9:58	8054.0	10.6	9.3	21.6	56.9	372.9	328.1	0.7
9/7/2006 14:42	8060.1	10.4	9.3	21.4	57.1	372.7	335.3	0.5

**Wastedbed 13 Pilot Study**

**A-3 (Native)**

Typical Vibrating Wire Piezometer

Date Installed: 9/20/2005

Grout =

0 to 63.3 ft

Bentonite Seal =

63.3 to 75.5 ft

Sandpack =

75.5 to 79 ft

Depth to piezometer tip from ground surface =

78.5 ft

Ro =

8703.2

To =

19.2 degrees Celsius

Linear Gage Factor (psi) =

0.01443 psi/digit

Thermal Factor =

0.00276 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.86 ft

Piezometer Tip Elevation =

351.36 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/14/2006 14:42	8071.0	10.5	9.1	21.0	57.5	372.4	342.3	0.1
9/21/2006 17:14	8071.5	10.4	9.1	21.0	57.5	372.3	349.4	0.1
9/28/2006 15:25	8086.5	10.7	8.9	20.5	58.0	371.8	356.4	-0.4
10/5/2006 15:41	8065.3	10.5	9.2	21.2	57.3	372.5	363.4	0.3
10/12/2006 14:48	8093.6	10.5	8.8	20.2	58.3	371.6	370.3	-0.6
10/20/2006 14:08	8082.8	11.2	8.9	20.6	57.9	372.0	378.3	-0.2
10/26/2006 15:07	8037.8	10.5	9.6	22.1	56.4	373.5	384.4	1.3
11/8/2006 12:58	8038.8	10.3	9.6	22.1	56.4	373.4	397.3	1.2
11/15/2006 16:16	8024.3	10.5	9.8	22.6	55.9	373.9	404.4	1.7
12/7/2006 15:12	8011.4	10.5	10.0	23.0	55.5	374.3	426.4	2.1
12/14/2006 14:11	8026.4	10.4	9.7	22.5	56.0	373.8	433.3	1.6
12/21/2006 13:34	8022.5	10.4	9.8	22.6	55.9	374.0	440.3	1.8
12/28/2006 13:49	8013.8	10.5	9.9	22.9	55.6	374.3	447.3	2.1
1/11/2007 15:36	8003.7	10.5	10.1	23.2	55.3	374.6	461.4	2.4
3/7/2007 10:57	8033.2	10.4	9.6	22.3	56.2	373.6	516.2	1.4
4/12/2007 11:25	7987.8	10.4	10.3	23.8	54.7	375.1	552.2	2.9
5/10/2007 11:50	7995.8	10.6	10.2	23.5	55.0	374.9	580.2	2.7
6/21/2007 13:18	8065.5	10.7	9.2	21.2	57.3	372.5	622.3	0.3
7/12/2007 13:20	8084.2	10.4	8.9	20.6	57.9	371.9	643.3	-0.3
8/15/2007 13:30	8097.9	10.4	8.7	20.1	58.4	371.5	677.3	-0.7
9/20/2007 14:36	8097.3	10.4	8.7	20.1	58.4	371.5	713.3	-0.7
10/25/2007 15:17	8085.8	10.3	8.9	20.5	58.0	371.9	748.4	-0.3
11/28/2007 12:36	8068.6	10.3	9.1	21.1	57.4	372.4	782.3	0.2
12/28/2007 12:58	8024.1	10.3	9.8	22.6	55.9	373.9	812.3	1.7
3/6/2008 12:29	8011.0	10.3	10.0	23.0	55.5	374.4	881.2	2.1
6/13/2008 12:30	8072.3	10.3	9.1	21.0	57.5	372.3	980.3	0.1
9/18/2008 14:07	8085.5	10.4	8.9	20.5	58.0	371.9	1077.3	-0.3

**Wastedbed 13 Pilot Study**

**A-4 (15 ft)**

Push-In Vibrating Wire Piezometer  
Date Installed: 10/3/2005  
Grout = 0 to 5.6 ft  
Bentonite Seal = 5.6 to 10 ft  
Depth to piezometer tip from ground surface = 15 ft  
Ro = 8817.7  
To = 20.4 degrees Celsius  
Linear Gage Factor (psi) = 0.01477 psi/digit  
Thermal Factor = 0.00587 psi/°C  
Unit Weight of Water = 62.4 pcf  
Initial Ground Surface Elevation = 429.45 ft  
Piezometer Tip Elevation = 414.45 ft

Serial # 05-13907

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/3/2005 14:27	9228.1	10.7	-6.1	-14.1	>=15	NA		
10/5/2005 11:20	8866.1	10.2	-0.8	-1.8	>=15	NA		
<b>10/7/2005 6:30</b>	<b>8882.3</b>	<b>10.2</b>	<b>-1.0</b>	<b>-2.3</b>	<b>&gt;=15</b>	<b>NA</b>	<b>0</b>	<b>0</b>
10/8/2005 9:28	8885.5	10.3	-1.1	-2.4	>=15	NA	1.1	-0.1
10/10/2005 8:30	8884.1	10.4	-1.0	-2.4	>=15	NA	3.1	-0.1
10/10/2005 11:39	8884.7	10.2	-1.0	-2.4	>=15	NA	3.2	-0.1
10/10/2005 13:40	8862.3	10.2	-0.7	-1.7	>=15	NA	3.3	0.7
10/10/2005 13:50	8858.3	10.2	-0.7	-1.5	>=15	NA	3.3	0.8
10/10/2005 14:16	8845.5	10.2	-0.5	-1.1	>=15	NA	3.3	1.3
10/10/2005 14:26	8841.8	10.1	-0.4	-1.0	>=15	NA	3.3	1.4
10/10/2005 14:35	8843.9	10.2	-0.4	-1.0	>=15	NA	3.3	1.3
10/10/2005 14:45	8846.5	10.2	-0.5	-1.1	>=15	NA	3.3	1.2
10/10/2005 15:00	8849.1	10.2	-0.5	-1.2	>=15	NA	3.4	1.1
10/10/2005 15:01	8849.4	10.2	-0.5	-1.2	>=15	NA	3.4	1.1
10/10/2005 15:16	8850.5	10.2	-0.5	-1.3	>=15	NA	3.4	1.1
10/10/2005 15:31	8850.1	10.2	-0.5	-1.2	>=15	NA	3.4	1.1
10/10/2005 15:45	8852.8	10.2	-0.6	-1.3	>=15	NA	3.4	1.0
10/10/2005 16:01	8852.9	10.2	-0.6	-1.3	>=15	NA	3.4	1.0
10/10/2005 16:19	8855.5	10.2	-0.6	-1.4	>=15	NA	3.4	0.9
10/10/2005 17:03	8858.5	10.2	-0.7	-1.5	>=15	NA	3.4	0.8
10/11/2005 7:58	8849.4	10.2	-0.5	-1.2	>=15	NA	4.1	1.1
10/11/2005 11:34	8851.1	10.2	-0.6	-1.3	>=15	NA	4.2	1.1
10/11/2005 17:06	8849.6	10.3	-0.5	-1.2	>=15	NA	4.4	1.1
10/12/2005 8:35	8843.6	10.2	-0.4	-1.0	>=15	NA	5.1	1.3
10/12/2005 14:03	8841	10.2	-0.4	-0.9	>=15	NA	5.3	1.4
10/12/2005 16:58	8833.1	10.2	-0.3	-0.7	>=15	NA	5.4	1.7
10/13/2005 8:34	8828.1	10.5	-0.2	-0.5	>=15	NA	6.1	1.9
10/14/2005 10:35	8827.1	11.4	-0.2	-0.4	>=15	NA	7.2	1.9
10/15/2005 7:35	8819.9	10.2	-0.1	-0.2	>=15	NA	8.0	2.1
10/15/2005 12:46	8755.9	10.3	0.9	2.0	13.0	416.4	8.3	4.3
10/15/2005 16:27	8719.6	10.2	1.4	3.2	11.8	417.7	8.4	5.5
10/17/2005 7:49	8735.3	10.2	1.2	2.7	12.3	417.1	10.1	5.0
10/17/2005 13:01	8734	10.2	1.2	2.7	12.3	417.2	10.3	5.1
10/18/2005 7:45	8742.8	10.2	1.0	2.4	12.6	416.9	11.1	4.8
10/18/2005 15:05	8614.7	10.2	2.9	6.8	8.2	421.2	11.4	9.1
10/18/2005 17:36	8618.8	10.2	2.9	6.6	8.4	421.1	11.5	9.0
10/19/2005 7:54	8641.9	10.2	2.5	5.9	9.1	420.3	12.1	8.2
10/19/2005 13:20	8646.5	10.2	2.5	5.7	9.3	420.1	12.3	8.0
10/19/2005 17:29	8557	10.2	3.8	8.7	6.3	423.2	12.5	11.1
10/20/2005 8:20	8582.4	10.3	3.4	7.9	7.1	422.3	13.1	10.2
10/20/2005 13:56	8595.5	10.2	3.2	7.4	7.6	421.9	13.3	9.8
10/21/2005 7:50	8619.2	10.3	2.9	6.6	8.4	421.1	14.1	9.0
10/21/2005 12:49	8625.2	10.4	2.8	6.4	8.6	420.9	14.3	8.8
10/22/2005 8:25	8650.3	10.3	2.4	5.6	9.4	420.0	15.1	7.9
10/24/2005 15:12	8667.8	10.4	2.2	5.0	10.0	419.4	17.4	7.3
10/26/2005 16:07	8648	10.3	2.4	5.6	9.4	420.1	19.4	8.0
10/27/2005 14:43	8649	10.4	2.4	5.6	9.4	420.1	20.3	8.0
10/28/2005 15:29	8654.2	10.4	2.4	5.4	9.6	419.9	21.4	7.8

**Wastebed 13 Pilot Study**

**A-4 (15 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/3/2005

Grout = 0 to 5.6 ft

Bentonite Seal = 5.6 to 10 ft

Depth to piezometer tip from ground surface = 15 ft

Ro = 8817.7

To = 20.4 degrees Celsius

Linear Gage Factor (psi) = 0.01477 psi/digit

Thermal Factor = 0.00587 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.45 ft

Piezometer Tip Elevation = 414.45 ft

Serial # 05-13907

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/31/2005 10:35	8675	10.3	2.0	4.7	10.3	419.2	24.2	7.1
11/2/2005 14:41	8685.8	10.3	1.9	4.4	10.6	418.8	26.3	6.7
11/4/2005 11:06	8695.9	10.3	1.7	4.0	11.0	418.5	28.2	6.4
11/7/2005 14:42	8696.6	10.3	1.7	4.0	11.0	418.4	31.3	6.3
11/11/2005 13:48	8690.2	10.4	1.8	4.2	10.8	418.7	35.3	6.6
11/14/2005 16:48	8684.7	10.4	1.9	4.4	10.6	418.8	38.4	6.7
11/17/2005 15:16	8646.5	10.4	2.5	5.7	9.3	420.1	41.4	8.0
11/21/2005 12:12	8682.5	10.4	1.9	4.5	10.5	418.9	45.2	6.8
12/2/2005 11:38	8663.1	10.5	2.2	5.1	9.9	419.6	56.2	7.5
12/6/2005 14:40	8672.9	10.6	2.1	4.8	10.2	419.3	60.3	7.1
12/15/2005 14:20	8701.1	10.6	1.7	3.8	11.2	418.3	69.3	6.2
12/22/2005 15:04	8719.2	10.7	1.4	3.2	11.8	417.7	76.4	5.6
12/29/2005 10:43	8708.5	10.7	1.6	3.6	11.4	418.0	83.2	5.9
1/5/2006 13:47	8679.9	10.7	2.0	4.6	10.4	419.0	90.3	6.9
1/12/2006 10:24	8640.6	10.7	2.6	5.9	9.1	420.4	97.2	8.2
1/19/2006 13:23	8639.4	10.8	2.6	5.9	9.1	420.4	104.3	8.3
1/26/2006 13:53	8648.2	10.8	2.4	5.6	9.4	420.1	111.3	8.0
2/2/2006 11:10	8647	10.8	2.5	5.7	9.3	420.1	118.2	8.0
2/9/2006 12:12	8641.8	11	2.5	5.9	9.1	420.3	125.2	8.2
2/16/2006 11:05	8669.8	10.9	2.1	4.9	10.1	419.4	132.2	7.3
2/23/2006 14:01	8689.9	11	1.8	4.2	10.8	418.7	139.3	6.6
3/2/2006 11:37	8720.4	11	1.4	3.2	11.8	417.6	146.2	5.5
3/9/2006 15:04	8737.6	10.9	1.1	2.6	12.4	417.1	153.4	4.9
3/16/2006 13:54	8660.7	11	2.3	5.2	9.8	419.7	160.3	7.6
3/23/2006 14:45	8692	11	1.8	4.2	10.8	418.6	167.3	6.5
3/31/2006 15:16	8715.3	11	1.5	3.4	11.6	417.8	175.4	5.7
4/6/2006 13:40	8720.1	10.9	1.4	3.2	11.8	417.6	181.3	5.5
4/13/2006 15:52	8719.7	10.9	1.4	3.2	11.8	417.7	188.4	5.6
4/20/2006 15:44	8733.6	11	1.2	2.7	12.3	417.2	195.4	5.1
4/26/2006 14:23	8708.2	10.9	1.6	3.6	11.4	418.1	201.3	5.9
5/4/2006 13:56	8732.5	10.9	1.2	2.8	12.2	417.2	209.3	5.1
5/11/2006 14:55	8753.3	11.1	0.9	2.1	12.9	416.5	216.4	4.4
5/18/2006 14:06	8765.7	10.9	0.7	1.6	13.4	416.1	223.3	4.0
5/25/2006 14:23	8756.3	10.8	0.9	2.0	13.0	416.4	230.3	4.3
6/1/2006 14:12	8756.3	10.8	0.9	2.0	13.0	416.4	237.3	4.3
6/8/2006 14:24	8757.9	10.8	0.8	1.9	13.1	416.4	244.3	4.2
6/15/2006 13:26	8757.9	10.8	0.8	1.9	13.1	416.4	251.3	4.2
6/22/2006 13:40	8764.7	10.7	0.7	1.7	13.3	416.1	258.3	4.0
6/29/2006 15:07	8763	10.7	0.8	1.7	13.3	416.2	265.4	4.1
7/6/2006 15:01	8767.5	10.7	0.7	1.6	13.4	416.0	272.4	3.9
7/13/2006 14:39	8671.4	10.7	2.1	4.9	10.1	419.3	279.3	7.2
7/20/2006 10:20	8717.2	10.8	1.4	3.3	11.7	417.7	286.2	5.6
7/27/2006 10:00	8746.3	10.6	1.0	2.3	12.7	416.8	293.1	4.6
8/3/2006 9:44	8752.9	10.7	0.9	2.1	12.9	416.5	300.1	4.4
8/10/2006 13:32	8755.5	10.6	0.9	2.0	13.0	416.4	307.3	4.3
8/17/2006 15:25	8757.5	10.6	0.8	1.9	13.1	416.4	314.4	4.3
8/24/2006 15:04	8770.8	10.6	0.6	1.5	13.5	415.9	321.4	3.8

**Wastebed 13 Pilot Study**

**A-4 (15 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/3/2005

Grout = 0 to 5.6 ft

Bentonite Seal = 5.6 to 10 ft

Depth to piezometer tip from ground surface = 15 ft

Ro = 8817.7

To = 20.4 degrees Celsius

Linear Gage Factor (psi) = 0.01477 psi/digit

Thermal Factor = 0.00587 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.45 ft

Piezometer Tip Elevation = 414.45 ft

Serial # 05-13907

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
8/31/2006 9:53	8769.5	10.7	0.7	1.5	13.5	416.0	328.1	3.9
9/7/2006 14:36	8774	10.6	0.6	1.4	13.6	415.8	335.3	3.7
9/14/2006 14:35	8776.3	10.7	0.6	1.3	13.7	415.7	342.3	3.6
9/21/2006 17:09	8779.6	10.6	0.5	1.2	13.8	415.6	349.4	3.5
9/28/2006 15:20	8784.1	10.6	0.4	1.0	14.0	415.5	356.4	3.4
10/5/2006 15:36	8766.9	10.6	0.7	1.6	13.4	416.0	363.4	3.9
10/12/2006 14:39	8790	10.7	0.4	0.8	14.2	415.3	370.3	3.2
10/20/2006 14:10	8734.2	10.7	1.2	2.7	12.3	417.2	378.3	5.1
10/26/2006 15:01	8700.5	10.7	1.7	3.9	11.1	418.3	384.4	6.2
11/8/2006 12:54	8730.7	10.7	1.2	2.8	12.2	417.3	397.3	5.2
11/15/2006 16:09	8721.4	10.8	1.4	3.2	11.8	417.6	404.4	5.5
12/7/2006 15:02	8689.4	10.9	1.8	4.2	10.8	418.7	426.4	6.6
12/14/2006 14:04	8722	11	1.4	3.1	11.9	417.6	433.3	5.5
12/21/2006 13:27	8729.8	10.8	1.2	2.9	12.1	417.3	440.3	5.2
12/28/2006 13:43	8679.3	11	2.0	4.6	10.4	419.0	447.3	6.9
1/11/2007 15:28	8661.7	11.1	2.2	5.2	9.8	419.6	461.4	7.5
3/7/2007 10:48	8732.3	11.2	1.2	2.8	12.2	417.2	516.2	5.1
4/12/2007 11:19	8595.2	11.2	3.2	7.5	7.5	421.9	552.2	9.8
5/10/2007 11:45	8637.4	11.1	2.6	6.0	9.0	420.5	580.2	8.4
6/21/2007 13:10	8776.7	11	0.6	1.3	13.7	415.7	622.3	3.6
7/12/2007 13:12	8802.8	10.9	0.2	0.4	14.6	414.8	643.3	2.7
8/15/2007 13:24	8827.2	10.8	-0.2	-0.5	>=15	NA	677.3	1.9
9/20/2007 14:28	8840.5	10.8	-0.4	-0.9	>=15	NA	713.3	1.4
10/25/2007 15:42	8802.1	10.8	0.2	0.4	14.6	414.9	748.4	2.7
11/28/2007 12:28	8712.8	11	1.5	3.4	11.6	417.9	782.2	5.8
12/28/2007 12:50	8681.4	11.2	2.0	4.5	10.5	419.0	812.3	6.9
3/6/2008 12:25	8665.6	11.5	2.2	5.1	9.9	419.5	881.2	7.4
6/13/2008 12:18	8789	11.3	0.4	0.9	14.1	415.3	980.2	3.2
9/18/2008 13:55	8826.3	11.1	-0.2	-0.4	>=15	NA	1077.3	1.9

**Wastebed 13 Pilot Study**

**A-4 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/3/2005

Grout = 0 to 21 ft

Bentonite Seal = 21 to 25 ft

Depth to piezometer tip from ground surface = 30 ft

Ro = 8787.3

To = 13.3 degrees Celsius

Linear Gage Factor (psi) = 0.01641 psi/digit

Thermal Factor = 0.00502 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.54 ft

Piezometer Tip Elevation = 399.54 ft

Serial # 05-13908

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/3/2005 10:27	8735.2	11.3	0.8	1.9	28.1	401.5		
10/5/2005 11:20	8718.8	11	1.1	2.6	27.4	402.1		
<b>10/7/2005 6:30</b>	<b>8728.0</b>	<b>11</b>	<b>1.0</b>	<b>2.2</b>	<b>27.8</b>	<b>401.8</b>	<b>0</b>	<b>0</b>
10/8/2005 9:24	8730.4	11	0.9	2.1	27.9	401.7	1.1	-0.1
10/10/2005 8:29	8729.3	11	0.9	2.2	27.8	401.7	3.1	0.0
10/10/2005 11:40	8728.8	11	0.9	2.2	27.8	401.7	3.2	0.0
10/10/2005 13:39	8711.6	11	1.2	2.8	27.2	402.4	3.3	0.6
10/10/2005 13:43	8709.2	11	1.3	2.9	27.1	402.5	3.3	0.7
10/10/2005 13:45	8706.8	11	1.3	3.0	27.0	402.6	3.3	0.8
10/10/2005 13:49	8703.3	11	1.4	3.2	26.8	402.7	3.3	0.9
10/10/2005 13:52	8699.8	11	1.4	3.3	26.7	402.8	3.3	1.1
10/10/2005 13:59	8692	11	1.6	3.6	26.4	403.1	3.3	1.4
10/10/2005 14:04	8688.3	11	1.6	3.7	26.3	403.3	3.3	1.5
10/10/2005 14:14	8675.4	11	1.8	4.2	25.8	403.8	3.3	2.0
10/10/2005 14:19	8669.8	11	1.9	4.4	25.6	404.0	3.3	2.2
10/10/2005 14:24	8663.3	11	2.0	4.7	25.3	404.2	3.3	2.5
10/10/2005 14:34	8651.6	11	2.2	5.1	24.9	404.7	3.3	2.9
10/10/2005 14:44	8642.1	11	2.4	5.5	24.5	405.0	3.3	3.3
10/10/2005 14:50	8637.4	11	2.4	5.6	24.4	405.2	3.3	3.4
10/10/2005 14:54	8633.4	11	2.5	5.8	24.2	405.3	3.3	3.6
10/10/2005 14:59	8630	11	2.6	5.9	24.1	405.5	3.4	3.7
10/10/2005 15:07	8625.7	11	2.6	6.1	23.9	405.6	3.4	3.9
10/10/2005 15:15	8622.5	11	2.7	6.2	23.8	405.8	3.4	4.0
10/10/2005 15:26	8615.6	11	2.8	6.5	23.5	406.0	3.4	4.3
10/10/2005 15:31	8613.6	11	2.8	6.6	23.4	406.1	3.4	4.3
10/10/2005 15:36	8611.3	11	2.9	6.6	23.4	406.2	3.4	4.4
10/10/2005 15:45	8610.3	11	2.9	6.7	23.3	406.2	3.4	4.5
10/10/2005 16:00	8609.5	11	2.9	6.7	23.3	406.2	3.4	4.5
10/10/2005 16:07	8610.1	11	2.9	6.7	23.3	406.2	3.4	4.5
10/10/2005 16:18	8612.5	11	2.9	6.6	23.4	406.1	3.4	4.4
10/10/2005 17:05	8626.8	11	2.6	6.1	23.9	405.6	3.4	3.8
10/11/2005 7:50	8671	11	1.9	4.4	25.6	403.9	4.1	2.2
10/11/2005 11:34	8653.2	11	2.2	5.1	24.9	404.6	4.2	2.8
10/11/2005 17:03	8646.2	11	2.3	5.3	24.7	404.9	4.4	3.1
10/12/2005 8:31	8649.9	11.0	2.2	5.2	24.8	404.7	5.1	3.0
10/12/2005 14:01	8648.7	11	2.3	5.2	24.8	404.8	5.3	3.0
10/12/2005 16:57	8621.5	11	2.7	6.3	23.7	405.8	5.4	4.0
10/13/2005 8:35	8622	11	2.7	6.2	23.8	405.8	6.1	4.0
10/14/2005 10:36	8622.8	12.3	2.7	6.2	23.8	405.8	7.2	4.0
10/15/2005 7:36	8632.6	11	2.5	5.8	24.2	405.4	8.0	3.6
10/15/2005 12:48	8526.3	11.1	4.3	9.9	20.1	409.4	8.3	7.6
10/15/2005 16:29	8485.2	11	4.9	11.4	18.6	411.0	8.4	9.2
10/17/2005 7:51	8482	11	5.0	11.5	18.5	411.1	10.1	9.3
10/17/2005 13:02	8481.8	11	5.0	11.5	18.5	411.1	10.3	9.3
10/18/2005 7:46	8491.3	11	4.8	11.2	18.8	410.7	11.1	9.0
10/18/2005 15:06	8370.4	11	6.8	15.8	14.2	415.3	11.4	13.5
10/18/2005 17:36	8362.6	11	7.0	16.1	13.9	415.6	11.5	13.8

**Wastedbed 13 Pilot Study**

**A-4 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/3/2005

Grout = 0 to 21 ft

Bentonite Seal = 21 to 25 ft

Depth to piezometer tip from ground surface = 30 ft

Ro = 8787.3

To = 13.3 degrees Celsius

Linear Gage Factor (psi) = 0.01641 psi/digit

Thermal Factor = 0.00502 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.54 ft

Piezometer Tip Elevation = 399.54 ft

Serial # 05-13908

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/19/2005 7:55	8364.1	11	6.9	16.0	14.0	415.5	12.1	13.8
10/19/2005 13:20	8365.1	11	6.9	16.0	14.0	415.5	12.3	13.7
10/19/2005 17:29	8270.1	11	8.5	19.6	10.4	419.1	12.5	17.3
10/20/2005 8:21	8272.6	11	8.4	19.5	10.5	419.0	13.1	17.2
10/20/2005 13:57	8277.5	11	8.4	19.3	10.7	418.8	13.3	17.1
10/21/2005 7:51	8263.4	11	8.6	19.8	10.2	419.4	14.1	17.6
10/21/2005 12:50	8285.0	11.0	8.2	19.0	11.0	418.5	14.3	16.8
10/22/2005 8:27	8298.2	11	8.0	18.5	11.5	418.0	15.1	16.3
10/24/2005 15:12	8311.8	11	7.8	18.0	12.0	417.5	17.4	15.8
10/26/2005 16:08	8330.3	11	7.5	17.3	12.7	416.8	19.4	15.1
10/27/2005 14:44	8330.9	11	7.5	17.3	12.7	416.8	20.3	15.0
10/28/2005 15:30	8336.1	11	7.4	17.1	12.9	416.6	21.4	14.8
10/31/2005 10:36	8362.5	11	7.0	16.1	13.9	415.6	24.2	13.8
11/2/2005 14:42	8377.3	11	6.7	15.5	14.5	415.0	26.3	13.3
11/4/2005 11:06	8396.4	11	6.4	14.8	15.2	414.3	28.2	12.6
11/7/2005 14:42	8404.7	11	6.3	14.5	15.5	414.0	31.3	12.2
11/11/2005 13:49	8424.7	11	5.9	13.7	16.3	413.2	35.3	11.5
11/14/2005 16:48	8431.3	11	5.8	13.5	16.5	413.0	38.4	11.2
11/17/2005 15:17	8451.6	11	5.5	12.7	17.3	412.2	41.4	10.5
11/21/2005 12:12	8479.9	11	5.0	11.6	18.4	411.2	45.2	9.4
12/2/2005 11:39	8517.6	11	4.4	10.2	19.8	409.7	56.2	8.0
12/6/2005 14:41	8513.7	11	4.5	10.3	19.7	409.9	60.3	8.1
12/15/2005 14:22	8534.7	11	4.1	9.5	20.5	409.1	69.3	7.3
12/22/2005 15:05	8547.9	11	3.9	9.0	21.0	408.6	76.4	6.8
12/29/2005 10:44	8567.1	11	3.6	8.3	21.7	407.9	83.2	6.1
1/5/2006 13:48	8569.2	11	3.6	8.2	21.8	407.8	90.3	6.0
1/12/2006 10:25	8551.3	10.9	3.9	8.9	21.1	408.4	97.2	6.7
1/19/2006 13:24	8524.4	10.9	4.3	9.9	20.1	409.5	104.3	7.7
1/26/2006 13:54	8521.4	11	4.4	10.0	20.0	409.6	111.3	7.8
2/2/2006 11:11	8541.7	10.9	4.0	9.3	20.7	408.8	118.2	7.1
2/9/2006 12:13	8530.6	10.9	4.2	9.7	20.3	409.2	125.2	7.5
2/16/2006 11:06	8543.9	11.1	4.0	9.2	20.8	408.7	132.2	7.0
2/23/2006 14:02	8564	10.9	3.7	8.4	21.6	408.0	139.3	6.2
3/2/2006 11:38	8585.8	11.1	3.3	7.6	22.4	407.1	146.2	5.4
3/9/2006 15:05	8600.8	10.9	3.0	7.0	23.0	406.6	153.4	4.8
3/16/2006 13:55	8568.9	10.9	3.6	8.2	21.8	407.8	160.3	6.0
3/23/2006 14:46	8563.6	10.9	3.7	8.4	21.6	408.0	167.3	6.2
3/31/2006 15:17	8592.3	10.9	3.2	7.4	22.6	406.9	175.4	5.1
4/6/2006 13:41	8596.9	11	3.1	7.2	22.8	406.7	181.3	5.0
4/13/2006 15:53	8601.2	10.9	3.0	7.0	23.0	406.6	188.4	4.8
4/20/2006 15:45	8609.7	10.9	2.9	6.7	23.3	406.2	195.4	4.5
4/26/2006 14:23	8606.1	10.9	3.0	6.8	23.2	406.4	201.3	4.6
5/4/2006 13:58	8612.5	10.9	2.9	6.6	23.4	406.1	209.3	4.4
5/11/2006 14:56	8626.5	10.9	2.6	6.1	23.9	405.6	216.4	3.8
5/18/2006 14:06	8636.1	10.9	2.5	5.7	24.3	405.2	223.3	3.5
5/25/2006 14:24	8631	10.9	2.6	5.9	24.1	405.4	230.3	3.7

**Wastedbed 13 Pilot Study**

**A-4 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/3/2005

Grout =

Serial # 05-13908

Bentonite Seal =

0 to 21 ft

Depth to piezometer tip from ground surface =

21 to 25 ft

30 ft

Ro =

8787.3

To =

13.3 degrees Celsius

Linear Gage Factor (psi) =

0.01641 psi/digit

Thermal Factor =

0.00502 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

429.54 ft

Piezometer Tip Elevation =

399.54 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
6/1/2006 14:13	8629.3	10.9	2.6	6.0	24.0	405.5	237.3	3.7
6/8/2006 14:25	8634.5	10.9	2.5	5.8	24.2	405.3	244.3	3.5
6/15/2006 13:27	8632.3	10.9	2.5	5.8	24.2	405.4	251.3	3.6
6/22/2006 13:41	8637.5	11	2.4	5.6	24.4	405.2	258.3	3.4
6/29/2006 15:09	8640.6	10.8	2.4	5.5	24.5	405.1	265.4	3.3
7/6/2006 15:01	8641.3	10.9	2.4	5.5	24.5	405.0	272.4	3.3
7/13/2006 14:40	8635.7	10.9	2.5	5.7	24.3	405.3	279.3	3.5
7/20/2006 10:21	8606.2	10.9	3.0	6.8	23.2	406.4	286.2	4.6
7/27/2006 10:01	8624	10.9	2.7	6.2	23.8	405.7	293.1	3.9
8/3/2006 9:45	8634.5	10.9	2.5	5.8	24.2	405.3	300.1	3.5
8/10/2006 13:33	8639.7	10.9	2.4	5.6	24.4	405.1	307.3	3.3
8/17/2006 15:26	8641	10.9	2.4	5.5	24.5	405.1	314.4	3.3
8/24/2006 15:05	8652.1	11	2.2	5.1	24.9	404.6	321.4	2.9
8/31/2006 9:54	8648.8	10.9	2.3	5.2	24.8	404.8	328.1	3.0
9/7/2006 14:37	8655	10.9	2.2	5.0	25.0	404.5	335.3	2.8
9/14/2006 14:36	8659.2	10.9	2.1	4.8	25.2	404.4	342.3	2.6
9/21/2006 17:10	8658.6	10.9	2.1	4.8	25.2	404.4	349.4	2.6
9/28/2006 15:21	8667	10.9	2.0	4.5	25.5	404.1	356.4	2.3
10/5/2006 15:37	8654.5	10.9	2.2	5.0	25.0	404.5	363.4	2.8
10/12/2006 14:41	8670.2	10.9	1.9	4.4	25.6	403.9	370.3	2.2
10/20/2006 14:12	8666.3	11	2.0	4.6	25.4	404.1	378.3	2.3
10/26/2006 15:02	8612.6	11	2.9	6.6	23.4	406.1	384.4	4.4
11/8/2006 12:55	8616.3	10.9	2.8	6.4	23.6	406.0	397.3	4.2
11/15/2006 16:10	8624.4	11	2.7	6.1	23.9	405.7	404.4	3.9
12/7/2006 15:04	8586.6	10.9	3.3	7.6	22.4	407.1	426.4	5.4
12/14/2006 14:05	8605.1	10.9	3.0	6.9	23.1	406.4	433.3	4.7
12/21/2006 13:28	8612.8	10.9	2.9	6.6	23.4	406.1	440.3	4.4
12/28/2006 13:44	8600.9	10.9	3.0	7.0	23.0	406.6	447.3	4.8
1/11/2007 15:29	8571.9	10.9	3.5	8.1	21.9	407.7	461.4	5.9
3/7/2007 10:49	8644.8	10.9	2.3	5.4	24.6	404.9	516.2	3.1
4/12/2007 11:20	8503.5	10.9	4.6	10.7	19.3	410.3	552.2	8.5
5/10/2007 11:46	8540.5	10.9	4.0	9.3	20.7	408.9	580.2	7.1
6/21/2007 13:12	8677.4	10.9	1.8	4.1	25.9	403.7	622.3	1.9
7/12/2007 13:13	8686.6	10.9	1.6	3.8	26.2	403.3	643.3	1.6
8/15/2007 13:25	8698.4	10.9	1.4	3.3	26.7	402.9	677.3	1.1
9/20/2007 14:29	8700.4	10.9	1.4	3.3	26.7	402.8	713.3	1.0
10/25/2007 15:42	8703.5	10.9	1.4	3.1	26.9	402.7	748.4	0.9
11/28/2007 12:28	8648.6	10.9	2.3	5.2	24.8	404.8	782.2	3.0
12/28/2007 12:50	8585.2	10.8	3.3	7.6	22.4	407.2	812.3	5.4
3/6/2008 12:25	8587.8	10.8	3.3	7.5	22.5	407.1	881.2	5.3
6/13/2008 12:18	8672.9	10.9	1.9	4.3	25.7	403.8	980.2	2.1
9/18/2008 13:55	8692.3	10.9	1.5	3.6	26.4	403.1	1077.3	1.4

**Wastedbed 13 Pilot Study**

**A-4 (55 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 9/30/2005

Grout = Approximately 0 to 45 ft

Bentonite Seal = Approximately 45 to 50 ft

Depth to piezometer tip from ground surface = 53.8 ft

Ro = 8861.2

To = 12.2 degrees Celsius

Linear Gage Factor (psi) = 0.01611 psi/digit

Thermal Factor = 0.00816 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.38 ft

Piezometer Tip Elevation = 375.58 ft

Serial # 05-13909

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/30/2005 13:09	7660.8	11.7	19.3	44.6	9.2	420.2		
10/5/2005 11:20	7751.4	11	17.9	41.2	12.6	416.8		
<b>10/7/2005 6:30</b>	<b>7758.9</b>	<b>11</b>	<b>17.7</b>	<b>41.0</b>	<b>12.8</b>	<b>416.5</b>	<b>0</b>	<b>0</b>
10/8/2005 9:26	7756.2	11.1	17.8	41.1	12.7	416.6	1.1	0.1
10/10/2005 8:28	7751.4	11	17.9	41.2	12.6	416.8	3.1	0.3
10/10/2005 11:38	7751	11	17.9	41.3	12.5	416.8	3.2	0.3
10/10/2005 13:38	7748.9	11.1	17.9	41.3	12.5	416.9	3.3	0.4
10/10/2005 13:51	7747.3	11	17.9	41.4	12.4	417.0	3.3	0.4
10/10/2005 14:17	7743.8	11	18.0	41.5	12.3	417.1	3.3	0.6
10/10/2005 14:25	7742.3	11.1	18.0	41.6	12.2	417.2	3.3	0.6
10/10/2005 14:34	7741	11	18.0	41.6	12.2	417.2	3.3	0.7
10/10/2005 14:45	7738.9	11	18.1	41.7	12.1	417.3	3.3	0.7
10/10/2005 14:59	7735.3	11	18.1	41.8	12.0	417.4	3.4	0.9
10/10/2005 15:16	7731.9	11	18.2	42.0	11.8	417.5	3.4	1.0
10/10/2005 15:32	7727.4	11	18.3	42.1	11.7	417.7	3.4	1.2
10/10/2005 15:45	7724.4	11	18.3	42.2	11.6	417.8	3.4	1.3
10/10/2005 16:01	7721.1	11	18.4	42.4	11.4	417.9	3.4	1.4
10/10/2005 16:19	7717.9	11	18.4	42.5	11.3	418.1	3.4	1.5
10/10/2005 17:04	7711.9	11	18.5	42.7	11.1	418.3	3.4	1.7
10/11/2005 7:51	7716.8	11	18.4	42.5	11.3	418.1	4.1	1.6
10/11/2005 11:33	7707.9	11.1	18.6	42.9	10.9	418.4	4.2	1.9
10/11/2005 17:01	7697.7	11	18.7	43.2	10.6	418.8	4.4	2.3
10/12/2005 8:28	7702	11.1	18.7	43.1	10.7	418.7	5.1	2.1
10/12/2005 14:04	7703.1	11.1	18.6	43.0	10.8	418.6	5.3	2.1
10/12/2005 16:59	7697.1	11	18.7	43.3	10.5	418.8	5.4	2.3
10/13/2005 8:36	7685.4	11.1	18.9	43.7	10.1	419.3	6.1	2.7
10/14/2005 10:37	7680.4	12.1	19.0	43.9	9.9	419.5	7.2	2.9
10/15/2005 7:36	7685.5	11.1	18.9	43.7	10.1	419.3	8.0	2.7
10/15/2005 12:48	7650	11.1	19.5	45.0	8.8	420.6	8.3	4.1
10/15/2005 16:27	7630.6	11.1	19.8	45.7	8.1	421.3	8.4	4.8
10/17/2005 7:53	7620.5	11	20.0	46.1	7.7	421.7	10.1	5.1
10/17/2005 13:03	7619.4	11	20.0	46.1	7.7	421.7	10.3	5.2
10/18/2005 7:47	7623.6	11	19.9	46.0	7.8	421.6	11.1	5.0
10/18/2005 15:07	7593.4	11	20.4	47.1	6.7	422.7	11.4	6.2
10/18/2005 17:37	7572	11	20.8	47.9	5.9	423.5	11.5	6.9
10/19/2005 7:55	7547.7	11	21.2	48.8	5.0	424.4	12.1	7.9
10/19/2005 13:19	7546.7	11	21.2	48.8	5.0	424.4	12.3	7.9
10/19/2005 17:29	7504.1	11	21.9	50.4	3.4	426.0	12.5	9.5
10/20/2005 8:22	7477.1	11.1	22.3	51.4	2.4	427.0	13.1	10.5
10/20/2005 13:58	7480.4	11	22.2	51.3	2.5	426.9	13.3	10.4
10/21/2005 7:52	7489.5	11	22.1	51.0	2.8	426.6	14.1	10.0
10/21/2005 12:51	7491.4	11.0	22.1	50.9	2.9	426.5	14.3	9.9
10/22/2005 8:29	7505.4	11	21.8	50.4	3.4	426.0	15.1	9.4
10/24/2005 15:13	7522.2	11	21.6	49.8	4.0	425.3	17.4	8.8
10/26/2005 16:09	7537.8	11	21.3	49.2	4.6	424.8	19.4	8.2
10/27/2005 14:45	7534.5	11	21.4	49.3	4.5	424.9	20.3	8.3
10/28/2005 15:31	7534.3	11	21.4	49.3	4.5	424.9	21.4	8.3
10/31/2005 10:36	7548.7	11	21.1	48.8	5.0	424.4	24.2	7.8

**Wastebed 13 Pilot Study**

**A-4 (55 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 9/30/2005

Grout = Approximately 0 to 45 ft

Bentonite Seal = Approximately 45 to 50 ft

Depth to piezometer tip from ground surface = 53.8 ft

Ro = 8861.2

To = 12.2 degrees Celsius

Linear Gage Factor (psi) = 0.01611 psi/digit

Thermal Factor = 0.00816 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.38 ft

Piezometer Tip Elevation = 375.58 ft

Serial # 05-13909

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/2/2005 14:42	7558.9	11	21.0	48.4	5.4	424.0	26.3	7.4
11/4/2005 11:07	7569.4	11	20.8	48.0	5.8	423.6	28.2	7.0
11/7/2005 14:43	7573.8	11	20.7	47.8	6.0	423.4	31.3	6.9
11/11/2005 13:50	7584.4	11	20.6	47.4	6.4	423.0	35.3	6.5
11/14/2005 16:50	7583.8	11	20.6	47.5	6.3	423.0	38.4	6.5
11/17/2005 15:17	7591.8	11	20.4	47.2	6.6	422.7	41.4	6.2
11/21/2005 12:13	7599	11	20.3	46.9	6.9	422.5	45.2	5.9
12/2/2005 11:40	7611.3	11	20.1	46.4	7.4	422.0	56.2	5.5
12/6/2005 14:42	7592.7	11	20.4	47.1	6.7	422.7	60.3	6.2
12/15/2005 14:23	7595.4	11	20.4	47.0	6.8	422.6	69.3	6.1
12/22/2005 15:06	7611.5	11	20.1	46.4	7.4	422.0	76.4	5.5
12/29/2005 10:46	7638.4	11	19.7	45.4	8.4	421.0	83.2	4.5
1/5/2006 13:49	7631.7	11	19.8	45.7	8.1	421.3	90.3	4.7
1/12/2006 10:25	7608.1	11	20.2	46.6	7.2	422.1	97.2	5.6
1/19/2006 13:25	7581.5	11	20.6	47.6	6.2	423.1	104.3	6.6
1/26/2006 13:55	7568.7	11	20.8	48.0	5.8	423.6	111.3	7.1
2/2/2006 11:12	7579.8	11	20.6	47.6	6.2	423.2	118.2	6.7
2/9/2006 12:14	7571.2	11	20.8	47.9	5.9	423.5	125.2	7.0
2/16/2006 11:06	7573.1	11	20.7	47.9	5.9	423.4	132.2	6.9
2/23/2006 14:03	7592.8	11	20.4	47.1	6.7	422.7	139.3	6.2
3/2/2006 11:39	7612.4	11	20.1	46.4	7.4	422.0	146.2	5.4
3/9/2006 15:06	7633.9	11	19.8	45.6	8.2	421.2	153.4	4.6
3/16/2006 13:56	7629.1	11	19.8	45.8	8.0	421.4	160.3	4.8
3/23/2006 14:47	7616.1	11	20.0	46.3	7.5	421.8	167.3	5.3
3/31/2006 15:18	7626.6	10.9	19.9	45.9	7.9	421.5	175.4	4.9
4/6/2006 13:42	7640.8	10.9	19.7	45.3	8.5	420.9	181.3	4.4
4/13/2006 15:54	7642.5	10.9	19.6	45.3	8.5	420.9	188.4	4.3
4/20/2006 15:46	7651.1	10.9	19.5	45.0	8.8	420.5	195.4	4.0
4/26/2006 14:24	7654.5	10.9	19.4	44.8	9.0	420.4	201.3	3.9
5/4/2006 13:59	7655.4	10.9	19.4	44.8	9.0	420.4	209.3	3.8
5/11/2006 14:57	7670.2	10.9	19.2	44.3	9.5	419.8	216.4	3.3
5/18/2006 14:07	7687.8	10.9	18.9	43.6	10.2	419.2	223.3	2.6
5/25/2006 14:25	7681.2	10.9	19.0	43.8	10.0	419.4	230.3	2.9
6/1/2006 14:14	7682.4	10.9	19.0	43.8	10.0	419.4	237.3	2.8
6/8/2006 14:28	7688.5	10.9	18.9	43.6	10.2	419.2	244.3	2.6
6/15/2006 13:28	7687.5	10.9	18.9	43.6	10.2	419.2	251.3	2.7
6/22/2006 13:42	7694.2	10.9	18.8	43.4	10.4	418.9	258.3	2.4
6/29/2006 15:10	7698.3	10.9	18.7	43.2	10.6	418.8	265.4	2.3
7/6/2006 15:02	7701	10.9	18.7	43.1	10.7	418.7	272.4	2.2
7/13/2006 14:41	7701.9	10.9	18.7	43.1	10.7	418.7	279.3	2.1
7/20/2006 10:22	7679.2	10.9	19.0	43.9	9.9	419.5	286.2	3.0
7/27/2006 10:02	7684	10.9	19.0	43.7	10.1	419.3	293.1	2.8
8/3/2006 9:46	7687.9	10.9	18.9	43.6	10.2	419.2	300.1	2.6
8/10/2006 13:34	7689.5	10.9	18.9	43.5	10.3	419.1	307.3	2.6
8/17/2006 15:27	7692.5	10.9	18.8	43.4	10.4	419.0	314.4	2.5
8/24/2006 15:06	7708.9	10.9	18.6	42.8	11.0	418.4	321.4	1.9
8/31/2006 9:55	7711.6	10.9	18.5	42.7	11.1	418.3	328.1	1.8
9/7/2006 14:38	7718	10.9	18.4	42.5	11.3	418.1	335.3	1.5
9/14/2006 14:38	7726.7	10.9	18.3	42.2	11.6	417.7	342.3	1.2

**Wastebed 13 Pilot Study**

**A-4 (55 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 9/30/2005

Grout = Approximately 0 to 45 ft

Bentonite Seal = Approximately 45 to 50 ft

Depth to piezometer tip from ground surface = 53.8 ft

Ro = 8861.2

To = 12.2 degrees Celsius

Linear Gage Factor (psi) = 0.01611 psi/digit

Thermal Factor = 0.00816 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.38 ft

Piezometer Tip Elevation = 375.58 ft

Serial # 05-13909

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/21/2006 17:11	7729.7	10.9	18.2	42.0	11.8	417.6	349.4	1.1
9/28/2006 15:22	7740	10.9	18.1	41.7	12.1	417.2	356.4	0.7
10/5/2006 15:37	7731.2	10.9	18.2	42.0	11.8	417.6	363.4	1.0
10/12/2006 14:42	7749.4	10.9	17.9	41.3	12.5	416.9	370.3	0.4
10/20/2006 14:13	7742.1	11.1	18.0	41.6	12.2	417.2	378.3	0.6
10/26/2006 15:03	7668.4	10.9	19.2	44.3	9.5	419.9	384.4	3.4
11/8/2006 12:55	7656.8	10.9	19.4	44.8	9.0	420.3	397.3	3.8
11/15/2006 16:11	7656.4	10.9	19.4	44.8	9.0	420.3	404.4	3.8
12/7/2006 15:05	7630.1	10.9	19.8	45.7	8.1	421.3	426.4	4.8
12/14/2006 14:06	7632.8	10.9	19.8	45.6	8.2	421.2	433.3	4.7
12/21/2006 13:29	7640.4	10.9	19.7	45.4	8.4	420.9	440.3	4.4
12/28/2006 13:45	7630.6	10.9	19.8	45.7	8.1	421.3	447.3	4.8
1/11/2007 15:31	7615.5	10.9	20.1	46.3	7.5	421.9	461.4	5.3
3/7/2007 10:50	7690.5	10.9	18.8	43.5	10.3	419.1	516.2	2.5
4/12/2007 11:21	7497.2	10.8	22.0	50.7	3.1	426.3	552.2	9.7
5/10/2007 11:46	7516.8	10.8	21.6	50.0	3.8	425.5	580.2	9.0
6/21/2007 13:13	7717.2	10.8	18.4	42.5	11.3	418.1	622.3	1.5
7/12/2007 13:15	7754.5	10.9	17.8	41.1	12.7	416.7	643.3	0.2
8/15/2007 13:26	7785.6	11	17.3	40.0	13.8	415.5	677.3	-1.0
9/20/2007 14:30	7791.7	10.8	17.2	39.7	14.1	415.3	713.3	-1.2
10/25/2007 15:42	7795.8	10.7	17.2	39.6	14.2	415.2	748.4	-1.4
11/28/2007 12:28	7741.2	10.7	18.0	41.6	12.2	417.2	782.2	0.7
12/28/2007 12:50	7638.6	10.7	19.7	45.4	8.4	421.0	812.3	4.5
3/6/2008 12:25	7603.9	10.7	20.2	46.7	7.1	422.3	881.2	5.8
6/13/2008 12:18	7714.1	10.7	18.5	42.6	11.2	418.2	980.2	1.7
9/18/2008 13:55	7763.5	10.7	17.7	40.8	13.0	416.4	1077.3	-0.2

**Wastedbed 13 Pilot Study**

**A-5 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/29/2005

Grout = Approximately 0 to 6 ft

Bentonite Seal = Approximately 6 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 8750.2

To = 13.5 degrees Celsius

Linear Gage Factor (psi) = 0.01707 psi/digit

Thermal Factor = 0.02447 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.52 ft

Piezometer Tip Elevation = 416.02 ft

Serial # 04-12600

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/29/2005 13:31	8619.5	13.3	2.2	5.1	9.4	421.2		
9/29/2005 14:01	8652.2	13.1	1.7	3.8	10.7	419.9		
9/30/2005 13:55	8724.6	10.9	0.4	0.9	13.6	416.9		
9/30/2005 14:25	8725.2	10.8	0.4	0.8	13.7	416.9		
10/7/2005 6:30	8739.5	10.2	0.1	0.2	14.3	416.3	0	0
10/8/2005 8:58	8740.6	10.2	0.1	0.2	14.3	416.2	1.1	0.0
10/10/2005 8:00	8729.8	10.2	0.3	0.6	13.9	416.6	3.1	0.4
10/10/2005 11:56	8729.4	10.2	0.3	0.6	13.9	416.7	3.2	0.4
10/10/2005 16:59	8728.9	10.2	0.3	0.7	13.8	416.7	3.4	0.4
10/11/2005 8:08	8724.3	10.2	0.4	0.8	13.7	416.9	4.1	0.6
10/11/2005 11:42	8722.8	10.2	0.4	0.9	13.6	416.9	4.2	0.7
10/11/2005 16:21	8719.3	10.2	0.4	1.0	13.5	417.1	4.4	0.8
10/12/2005 7:49	8713.9	10.3	0.5	1.2	13.3	417.3	5.1	1.0
10/12/2005 14:12	8711.1	10.2	0.6	1.4	13.1	417.4	5.3	1.1
10/12/2005 17:19	8709.7	10.2	0.6	1.4	13.1	417.4	5.5	1.2
10/13/2005 9:01	8704	10.3	0.7	1.6	12.9	417.7	6.1	1.4
10/14/2005 10:27	8696.8	11.7	0.9	2.0	12.5	418.0	7.2	1.8
10/15/2005 7:44	8649.3	10.3	1.6	3.8	10.7	419.8	8.1	3.6
10/15/2005 12:54	8648.3	10.3	1.7	3.8	10.7	419.9	8.3	3.6
10/15/2005 16:38	8646.5	10.2	1.7	3.9	10.6	419.9	8.4	3.7
10/17/2005 8:04	8643.6	10.3	1.7	4.0	10.5	420.0	10.1	3.8
10/17/2005 12:51	8627.7	10.3	2.0	4.6	9.9	420.7	10.3	4.4
10/18/2005 7:54	8644.1	10.3	1.7	4.0	10.5	420.0	11.1	3.8
10/18/2005 14:58	8629.7	10.3	2.0	4.6	9.9	420.6	11.4	4.3
10/18/2005 17:32	8581.1	10.3	2.8	6.5	8.0	422.5	11.5	6.2
10/19/2005 7:46	8607.9	10.3	2.4	5.4	9.1	421.4	12.1	5.2
10/19/2005 13:29	8566.7	10.3	3.1	7.0	7.5	423.1	12.3	6.8
10/19/2005 17:24	8570.4	10.3	3.0	6.9	7.6	422.9	12.5	6.7
10/20/2005 8:13	8586.3	10.3	2.7	6.3	8.2	422.3	13.1	6.0
10/20/2005 13:49	8592	10.3	2.6	6.1	8.4	422.1	13.3	5.8
10/21/2005 7:58	8604.4	10.3	2.4	5.6	8.9	421.6	14.1	5.3
10/21/2005 13:00	8606.7	10.3	2.4	5.5	9.0	421.5	14.3	5.2
10/22/2005 8:38	8618.7	10.3	2.2	5.0	9.5	421.0	15.1	4.8
10/24/2005 15:18	8602.4	10.4	2.4	5.6	8.9	421.7	17.4	5.4
10/26/2005 16:15	8573.2	10.3	2.9	6.8	7.7	422.8	19.4	6.6
10/27/2005 14:53	8579.4	10.3	2.8	6.5	8.0	422.6	20.3	6.3
10/28/2005 15:37	8589.6	10.3	2.7	6.1	8.4	422.2	21.4	5.9
10/31/2005 10:41	8624	10.4	2.1	4.8	9.7	420.8	24.2	4.6
11/2/2005 14:47	8645.7	10.5	1.7	3.9	10.6	420.0	26.3	3.7
11/4/2005 11:13	8658.2	10.4	1.5	3.4	11.1	419.5	28.2	3.2
11/7/2005 14:49	8658.4	10.4	1.5	3.4	11.1	419.5	31.3	3.2
11/11/2005 13:54	8643.6	10.5	1.7	4.0	10.5	420.0	35.3	3.8
11/14/2005 16:41	8643.3	10.6	1.8	4.0	10.5	420.1	38.4	3.8
11/17/2005 15:24	8583.3	10.5	2.8	6.4	8.1	422.4	41.4	6.2
11/21/2005 12:17	8632.6	10.5	1.9	4.5	10.0	420.5	45.2	4.2
12/2/2005 11:46	8604.7	10.7	2.4	5.6	8.9	421.6	56.2	5.3
12/6/2005 14:47	8624.9	10.7	2.1	4.8	9.7	420.8	60.3	4.5

**Wastedbed 13 Pilot Study**

**A-5 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/29/2005

Grout = Approximately 0 to 6 ft

Bentonite Seal = Approximately 6 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 8750.2

To = 13.5 degrees Celsius

Linear Gage Factor (psi) = 0.01707 psi/digit

Thermal Factor = 0.02447 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.52 ft

Piezometer Tip Elevation = 416.02 ft

Serial # 04-12600

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/15/2005 14:33	8658.7	10.8	1.5	3.5	11.0	419.5	69.3	3.2
12/22/2005 15:14	8669.3	10.8	1.3	3.0	11.5	419.1	76.4	2.8
12/29/2005 10:58	8659.7	10.9	1.5	3.4	11.1	419.4	83.2	3.2
1/5/2006 13:58	8624.7	10.9	2.1	4.8	9.7	420.8	90.3	4.6
1/12/2006 10:30	8576	11.1	2.9	6.7	7.8	422.7	97.2	6.5
1/19/2006 13:31	8586.9	11	2.7	6.3	8.2	422.3	104.3	6.1
1/26/2006 14:03	8599.1	11.1	2.5	5.8	8.7	421.8	111.3	5.6
2/2/2006 11:18	8592.9	11.2	2.6	6.1	8.4	422.1	118.2	5.8
2/9/2006 12:20	8591.4	11.1	2.7	6.1	8.4	422.1	125.2	5.9
2/16/2006 11:11	8625.6	11.3	2.1	4.8	9.7	420.8	132.2	4.5
2/23/2006 14:10	8645.2	11.1	1.7	4.0	10.5	420.0	139.3	3.8
3/2/2006 11:45	8675.2	11.2	1.2	2.8	11.7	418.8	146.2	2.6
3/9/2006 15:11	8682.8	11.3	1.1	2.5	12.0	418.6	153.4	2.3
3/16/2006 14:02	8607.2	11.2	2.4	5.5	9.0	421.5	160.3	5.3
3/23/2006 14:53	8648.9	11.2	1.7	3.9	10.6	419.9	167.3	3.6
3/31/2006 15:24	8668.6	11.2	1.3	3.1	11.4	419.1	175.4	2.8
4/6/2006 13:48	8672.9	11.2	1.3	2.9	11.6	418.9	181.3	2.7
4/13/2006 16:00	8670.8	11.2	1.3	3.0	11.5	419.0	188.4	2.8
4/20/2006 15:52	8677	11.2	1.2	2.8	11.7	418.8	195.4	2.5
4/26/2006 14:30	8661.1	11.2	1.5	3.4	11.1	419.4	201.3	3.1
5/4/2006 14:04	8677.9	11.1	1.2	2.7	11.8	418.7	209.3	2.5
5/11/2006 15:03	8689.5	11.1	1.0	2.3	12.2	418.3	216.4	2.0
5/18/2006 14:43	8701.6	11.1	0.8	1.8	12.7	417.8	223.3	1.5
5/25/2006 14:31	8692.3	11.1	0.9	2.1	12.4	418.2	230.3	1.9
6/1/2006 14:18	8690	11.3	1.0	2.2	12.3	418.3	237.3	2.0
6/8/2006 14:33	8694.9	11	0.9	2.0	12.5	418.1	244.3	1.8
6/15/2006 13:33	8691.6	11.1	0.9	2.2	12.3	418.2	251.3	1.9
6/22/2006 13:48	8696	11	0.9	2.0	12.5	418.0	258.3	1.8
6/29/2006 15:16	8699.5	10.9	0.8	1.9	12.6	417.9	265.4	1.6
7/6/2006 15:07	8700.6	10.9	0.8	1.8	12.7	417.8	272.4	1.6
7/13/2006 14:47	8597.5	10.9	2.5	5.9	8.6	421.9	279.3	5.6
7/20/2006 10:29	8662.8	10.9	1.4	3.3	11.2	419.3	286.2	3.1
7/27/2006 10:09	8680.1	11	1.1	2.6	11.9	418.6	293.2	2.4
8/3/2006 9:53	8688.4	10.8	1.0	2.3	12.2	418.3	300.1	2.0
8/10/2006 13:40	8686.8	10.8	1.0	2.3	12.2	418.4	307.3	2.1
8/17/2006 15:32	8685	10.8	1.0	2.4	12.1	418.4	314.4	2.2
8/24/2006 15:12	8696.8	10.8	0.8	2.0	12.5	418.0	321.4	1.7
8/31/2006 10:00	8697.8	10.9	0.8	1.9	12.6	417.9	328.1	1.7
9/7/2006 14:44	8705.9	10.8	0.7	1.6	12.9	417.6	335.3	1.4
9/14/2006 14:44	8712.9	10.9	0.6	1.3	13.2	417.3	342.3	1.1
9/21/2006 17:17	8714.2	10.8	0.5	1.3	13.2	417.3	349.4	1.0
9/28/2006 15:27	8723.1	10.9	0.4	0.9	13.6	416.9	356.4	0.7
10/5/2006 15:44	8690.4	10.9	1.0	2.2	12.3	418.2	363.4	2.0
10/12/2006 14:51	8706.5	10.9	0.7	1.6	12.9	417.6	370.3	1.3
10/20/2006 14:20	8623.6	11.8	2.1	4.9	9.6	420.9	378.3	4.7
10/26/2006 15:10	8626.3	10.9	2.1	4.7	9.8	420.8	384.4	4.5
11/8/2006 13:01	8667.7	11	1.3	3.1	11.4	419.1	397.3	2.9

**Wastebed 13 Pilot Study**

**A-5 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/29/2005

Grout = Approximately 0 to 6 ft

Bentonite Seal = Approximately 6 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 8750.2

To = 13.5 degrees Celsius

Linear Gage Factor (psi) = 0.01707 psi/digit

Thermal Factor = 0.02447 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.52 ft

Piezometer Tip Elevation = 416.02 ft

Serial # 04-12600

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
11/15/2006 16:18	8653.8	11	1.6	3.7	10.8	419.7	404.4	3.4
12/7/2006 15:15	8619.6	11.1	2.2	5.0	9.5	421.0	426.4	4.8
12/14/2006 14:14	8658.9	11.3	1.5	3.5	11.0	419.5	433.3	3.2
12/21/2006 13:36	8662.6	11.2	1.4	3.3	11.2	419.3	440.3	3.1
12/28/2006 13:53	8599	11.5	2.5	5.8	8.7	421.9	447.3	5.6
1/11/2007 15:40	8584.7	11.6	2.8	6.4	8.1	422.4	461.4	6.2
3/7/2007 11:04	8664.5	11.8	1.4	3.3	11.2	419.3	516.2	3.0
4/12/2007 11:27	8548.9	11.5	3.4	7.8	6.7	423.8	552.2	7.6
5/10/2007 11:51	8581.7	11.8	2.8	6.5	8.0	422.6	580.2	6.3
6/21/2007 13:21	8702.4	11.2	0.8	1.8	12.7	417.8	622.3	1.5
7/12/2007 13:23	8724.1	11.2	0.4	0.9	13.6	416.9	643.3	0.7
8/15/2007 13:34	8739.8	11.1	0.1	0.3	14.2	416.3	677.3	0.0
9/20/2007 14:41	8739.8	11.1	0.1	0.3	14.2	416.3	713.3	0.0
10/25/2007 15:20	8741.8	11.1	0.1	0.2	14.3	416.2	748.4	0.0
11/28/2007 12:40	8644.1	11.3	1.8	4.1	10.4	420.1	782.3	3.8
12/28/2007 13:06	8614.3	11.5	2.3	5.2	9.3	421.3	812.3	5.0
3/6/2008 12:32	8578.9	11.8	2.9	6.7	7.8	422.7	881.3	6.4
6/13/2008 12:37	8701.7	11.5	0.8	1.8	12.7	417.8	980.3	1.6
9/18/2008 14:12	8737.5	11.3	0.2	0.4	14.1	416.4	1077.3	0.1

**Wastedbed 13 Pilot Study**

**A-5 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = Approximately 0 to 21.5 ft

Bentonite Seal = Approximately 21.5 to 26.4 ft

Sandpack = 26.4 to 30 ft

Depth to piezometer tip from ground surface = 29.5 ft

Ro = 8641.1

To = 20.9 degrees Celsius

Linear Gage Factor (psi) = 0.01522 psi/digit

Thermal Factor = 0.009671 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.57 ft

Piezometer Tip Elevation = 401.07 ft

Serial # 04-12605

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/28/2005 15:41	7911.1	20.9	11.1	25.6	3.9	426.7		
9/29/2005 9:25	8543.8	12.4	1.4	3.2	26.3	404.3		
9/30/2005 14:21	8551.4	11.5	1.3	2.9	26.6	404.0		
<b>10/7/2005 6:30</b>	<b>8554</b>	<b>11</b>	<b>1.2</b>	<b>2.8</b>	<b>26.7</b>	<b>403.9</b>	<b>0</b>	<b>0</b>
10/8/2005 9:02	8553.4	11	1.2	2.9	26.6	403.9	1.1	0.0
10/10/2005 8:02	8548	11	1.3	3.0	26.5	404.1	3.1	0.2
10/10/2005 11:57	8537.5	11	1.5	3.4	26.1	404.5	3.2	0.6
10/10/2005 16:58	8522.7	11	1.7	3.9	25.6	405.0	3.4	1.1
10/11/2005 8:09	8530.8	11	1.6	3.7	25.8	404.7	4.1	0.8
10/11/2005 11:41	8468	11	2.5	5.9	23.6	406.9	4.2	3.0
10/11/2005 16:15	8500.8	11	2.0	4.7	24.8	405.8	4.4	1.9
10/12/2005 7:45	8506.5	11.0	2.0	4.5	25.0	405.6	5.1	1.7
10/12/2005 14:13	8746	11	-1.7	-3.9	33.4	397.2	5.3	-6.7
10/12/2005 17:20	8467.9	11	2.5	5.9	23.6	406.9	5.5	3.0
10/13/2005 9:02	8472.4	11	2.5	5.7	23.8	406.8	6.1	2.9
10/14/2005 10:27	8471.0	12.1	2.5	5.8	23.7	406.8	7.2	2.9
10/15/2005 7:45	8471.3	11	2.5	5.7	23.8	406.8	8.1	2.9
10/15/2005 12:54	8462	11	2.6	6.1	23.4	407.1	8.3	3.2
10/15/2005 16:37	8446.2	11	2.9	6.6	22.9	407.7	8.4	3.8
10/17/2005 8:06	8429.3	11	3.1	7.2	22.3	408.3	10.1	4.4
10/17/2005 12:52	8355.9	10.9	4.2	9.8	19.7	410.9	10.3	7.0
10/18/2005 7:54	8376.2	10.9	3.9	9.1	20.4	410.2	11.1	6.2
10/18/2005 14:58	8351.6	10.9	4.3	9.9	19.6	411.0	11.4	7.1
10/18/2005 17:31	8267.6	11	5.6	12.9	16.6	414.0	11.5	10.1
10/19/2005 7:46	8275	11	5.5	12.6	16.9	413.7	12.1	9.8
10/19/2005 13:30	8200.6	10.9	6.6	15.2	14.3	416.3	12.3	12.4
10/19/2005 17:24	8194.5	10.9	6.7	15.5	14.0	416.5	12.5	12.6
10/20/2005 8:15	8199.7	11	6.6	15.3	14.2	416.4	13.1	12.4
10/20/2005 13:50	8205.1	10.9	6.5	15.1	14.4	416.2	13.3	12.3
10/21/2005 7:59	8219.6	11	6.3	14.6	14.9	415.7	14.1	11.7
10/21/2005 13:01	8223.8	10.9	6.3	14.4	15.1	415.5	14.3	11.6
10/22/2005 8:40	8244.4	10.9	5.9	13.7	15.8	414.8	15.1	10.9
10/24/2005 15:18	8267	10.9	5.6	12.9	16.6	414.0	17.4	10.1
10/26/2005 16:16	8271.2	10.9	5.5	12.8	16.7	413.8	19.4	9.9
10/27/2005 14:54	8268.2	10.9	5.6	12.9	16.6	413.9	20.3	10.0
10/28/2005 15:38	8273.1	10.9	5.5	12.7	16.8	413.8	21.4	9.9
10/31/2005 10:41	8302.8	10.9	5.1	11.7	17.8	412.7	24.2	8.8
11/2/2005 14:48	8318.6	10.9	4.8	11.1	18.4	412.2	26.3	8.3
11/4/2005 11:14	8338.5	10.9	4.5	10.4	19.1	411.5	28.2	7.6
11/7/2005 14:50	8349.6	10.9	4.3	10.0	19.5	411.1	31.3	7.2
11/11/2005 13:55	8365.4	11	4.1	9.5	20.0	410.5	35.3	6.6
11/14/2005 16:42	8362.7	10.9	4.1	9.6	19.9	410.6	38.4	6.7
11/17/2005 15:25	8348.4	10.9	4.4	10.1	19.4	411.1	41.4	7.2
11/21/2005 12:17	8369.4	10.9	4.0	9.3	20.2	410.4	45.2	6.5
12/2/2005 11:47	8358.2	11	4.2	9.7	19.8	410.8	56.2	6.9

**Wastebed 13 Pilot Study**

**A-5 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = Approximately 0 to 21.5 ft

Bentonite Seal = Approximately 21.5 to 26.4 ft

Sandpack = 26.4 to 30 ft

Depth to piezometer tip from ground surface = 29.5 ft

Ro = 8641.1

To = 20.9 degrees Celsius

Linear Gage Factor (psi) = 0.01522 psi/digit

Thermal Factor = 0.009671 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.57 ft

Piezometer Tip Elevation = 401.07 ft

Serial # 04-12605

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/6/2005 14:47	8356.5	10.9	4.2	9.8	19.7	410.8	60.3	6.9
12/15/2005 14:34	8389.4	10.9	3.7	8.6	20.9	409.7	69.3	5.8
12/22/2005 15:15	8410	10.9	3.4	7.9	21.6	409.0	76.4	5.1
12/29/2005 11:00	8417.7	10.8	3.3	7.6	21.9	408.7	83.2	4.8
1/5/2006 13:59	8395.7	10.9	3.6	8.4	21.1	409.5	90.3	5.6
1/12/2006 10:31	8350.5	10.8	4.3	10.0	19.5	411.1	97.2	7.1
1/19/2006 13:32	8316.4	10.8	4.8	11.2	18.3	412.2	104.3	8.3
1/26/2006 14:04	8315.6	10.9	4.9	11.2	18.3	412.3	111.3	8.4
2/2/2006 11:19	8327.7	10.8	4.7	10.8	18.7	411.9	118.2	7.9
2/9/2006 12:21	8315.5	10.8	4.9	11.2	18.3	412.3	125.2	8.4
2/16/2006 11:09	8340.7	10.8	4.5	10.3	19.2	411.4	132.2	7.5
2/23/2006 14:11	8365.4	10.8	4.1	9.5	20.0	410.5	139.3	6.6
3/2/2006 11:46	8403.9	10.9	3.5	8.1	21.4	409.2	146.2	5.3
3/9/2006 15:12	8433.1	10.8	3.1	7.1	22.4	408.2	153.4	4.2
3/16/2006 14:03	8369.3	10.8	4.0	9.3	20.2	410.4	160.3	6.5
3/23/2006 14:54	8378.6	10.8	3.9	9.0	20.5	410.1	167.3	6.2
3/31/2006 15:25	8407.6	10.8	3.5	8.0	21.5	409.0	175.4	5.1
4/6/2006 13:49	8417	10.8	3.3	7.6	21.9	408.7	181.3	4.8
4/13/2006 16:00	8417	10.8	3.3	7.6	21.9	408.7	188.4	4.8
4/20/2006 15:53	8433.7	10.8	3.1	7.1	22.4	408.1	195.4	4.2
4/26/2006 14:31	8419.5	10.8	3.3	7.6	21.9	408.6	201.3	4.7
5/4/2006 14:05	8433	10.8	3.1	7.1	22.4	408.2	209.3	4.2
5/11/2006 15:04	8457.9	10.8	2.7	6.2	23.3	407.3	216.4	3.4
5/18/2006 14:44	8473.2	10.8	2.5	5.7	23.8	406.7	223.3	2.8
5/25/2006 14:32	8470.3	10.8	2.5	5.8	23.7	406.8	230.3	2.9
6/1/2006 14:19	8469.6	10.8	2.5	5.8	23.7	406.9	237.3	3.0
6/8/2006 14:34	8474.6	10.8	2.4	5.6	23.9	406.7	244.3	2.8
6/15/2006 13:33	8472.1	10.8	2.5	5.7	23.8	406.8	251.3	2.9
6/22/2006 13:49	8480.6	10.8	2.3	5.4	24.1	406.5	258.3	2.6
6/29/2006 15:16	8490.4	10.8	2.2	5.1	24.4	406.1	265.4	2.2
7/6/2006 15:08	8493.8	10.8	2.1	4.9	24.6	406.0	272.4	2.1
7/13/2006 14:47	8460.7	10.8	2.6	6.1	23.4	407.2	279.3	3.3
7/20/2006 10:30	8432.2	10.8	3.1	7.1	22.4	408.2	286.2	4.3
7/27/2006 10:10	8455.3	10.8	2.7	6.3	23.2	407.4	293.2	3.5
8/3/2006 9:53	8467.5	10.9	2.5	5.9	23.6	406.9	300.1	3.0
8/10/2006 13:41	8476.8	10.8	2.4	5.5	24.0	406.6	307.3	2.7
8/17/2006 15:32	8482.5	10.8	2.3	5.3	24.2	406.4	314.4	2.5
8/24/2006 15:13	8499.3	10.8	2.1	4.8	24.7	405.8	321.4	1.9
8/31/2006 10:01	8500.5	10.9	2.0	4.7	24.8	405.8	328.1	1.9
9/7/2006 14:45	8512	10.8	1.9	4.3	25.2	405.4	335.3	1.5
9/14/2006 14:45	8517.1	10.8	1.8	4.1	25.4	405.2	342.3	1.3
9/21/2006 17:18	8517.2	10.8	1.8	4.1	25.4	405.2	349.4	1.3
9/28/2006 15:28	8527.9	10.9	1.6	3.8	25.7	404.8	356.4	0.9
10/5/2006 15:45	8497.5	10.7	2.1	4.8	24.7	405.9	363.4	2.0
10/12/2006 14:53	8501.6	10.9	2.0	4.7	24.8	405.7	370.3	1.8

**Wastebed 13 Pilot Study**

**A-5 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = Approximately 0 to 21.5 ft

Bentonite Seal = Approximately 21.5 to 26.4 ft

Sandpack = 26.4 to 30 ft

Depth to piezometer tip from ground surface = 29.5 ft

Ro = 8641.1

To = 20.9 degrees Celsius

Linear Gage Factor (psi) = 0.01522 psi/digit

Thermal Factor = 0.009671 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.57 ft

Piezometer Tip Elevation = 401.07 ft

Serial # 04-12605

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/20/2006 14:21	8481	11.4	2.3	5.4	24.1	406.5	378.3	2.6
10/26/2006 15:12	8412	10.9	3.4	7.8	21.7	408.9	384.4	5.0
11/8/2006 13:01	8411.9	10.8	3.4	7.8	21.7	408.9	397.3	5.0
11/15/2006 16:19	8418.5	10.9	3.3	7.6	21.9	408.7	404.4	4.8
12/7/2006 15:16	8361.8	10.8	4.2	9.6	19.9	410.7	426.4	6.7
12/14/2006 14:15	8395.3	10.7	3.6	8.4	21.1	409.5	433.3	5.6
12/21/2006 13:38	8408.3	10.8	3.4	8.0	21.5	409.0	440.3	5.1
12/28/2006 13:54	8373.1	10.8	4.0	9.2	20.3	410.3	447.3	6.3
1/11/2007 15:41	8336.5	10.9	4.5	10.5	19.0	411.5	461.4	7.6
3/7/2007 11:05	8456.8	10.8	2.7	6.2	23.3	407.3	516.2	3.4
4/12/2007 11:27	8276.4	10.9	5.5	12.6	16.9	413.7	552.2	9.7
5/10/2007 11:52	8309.8	11.4	5.0	11.4	18.1	412.5	580.2	8.6
6/21/2007 13:22	8513.4	10.8	1.8	4.3	25.2	405.3	622.3	1.4
7/12/2007 13:24	8534.5	11	1.5	3.5	26.0	404.6	643.3	0.7
8/15/2007 13:35	8547	10.8	1.3	3.1	26.4	404.1	677.3	0.2
9/20/2007 14:41	8547	10.9	1.3	3.1	26.4	404.2	713.3	0.2
10/25/2007 15:21	8546.8	10.9	1.3	3.1	26.4	404.2	748.4	0.3
11/28/2007 12:40	8436.9	10.8	3.0	6.9	22.6	408.0	782.3	4.1
12/28/2007 13:06	8366	11.1	4.1	9.4	20.1	410.5	812.3	6.6
3/6/2008 12:32	8340.8	10.8	4.5	10.3	19.2	411.4	881.3	7.5
6/13/2008 12:37	8499	10.9	2.1	4.8	24.7	405.8	980.3	1.9
9/18/2008 14:12	8529.6	10.9	1.6	3.7	25.8	404.8	1077.3	0.9

**Wastedbed 13 Pilot Study**

**A-5 (55 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout =

0 to 43.3 ft

Bentonite Seal =

43.3 to 51.5 ft

Sandpack =

51.5 to 55 ft

Depth to piezometer tip from ground surface =

54.5 ft

Ro =

9275.2

To =

15.9 degrees Celsius

Linear Gage Factor (psi) =

0.01586 psi/digit

Thermal Factor =

0.016431 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.83 ft

Piezometer Tip Elevation =

376.33 ft

Serial # 04-12608

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/28/2005 10:43	7968.7	14.9	20.7	47.8	6.7	424.1		
9/28/2005 11:04	8108.6	14.7	18.5	42.7	11.8	419.0		
10/7/2005 6:30	9041.0	11	3.6	8.4	46.1	384.7	0	0
10/8/2005 9:01	9039.6	11	3.7	8.4	46.1	384.8	1.1	0.1
10/10/2005 8:01	9034.2	11	3.7	8.6	45.9	385.0	3.1	0.2
10/10/2005 11:56	9023.7	10.9	3.9	9.0	45.5	385.3	3.2	0.6
10/10/2005 17:01	9003.9	11	4.2	9.7	44.8	386.1	3.4	1.4
10/11/2005 8:10	9061.4	11	3.3	7.6	46.9	384.0	4.1	-0.7
10/11/2005 11:41	8973	11	4.7	10.9	43.6	387.2	4.2	2.5
10/11/2005 16:19	8992.0	11	4.4	10.2	44.3	386.5	4.4	1.8
10/12/2005 7:47	8999	11.0	4.3	9.9	44.6	386.3	5.1	1.5
10/12/2005 14:11	8981.5	11	4.6	10.6	43.9	386.9	5.3	2.2
10/12/2005 17:21	8977.7	11.2	4.6	10.7	43.8	387.0	5.5	2.3
10/13/2005 9:03	8984.2	11	4.5	10.5	44.0	386.8	6.1	2.1
10/14/2005 10:28	8983.1	12.2	4.6	10.6	43.9	386.9	7.2	2.2
10/15/2005 7:46	8990.7	11	4.4	10.2	44.3	386.6	8.1	1.8
10/15/2005 12:55	8983.2	11	4.6	10.5	44.0	386.8	8.3	2.1
10/15/2005 16:38	8972.9	10.9	4.7	10.9	43.6	387.2	8.4	2.5
10/17/2005 8:08	8956.2	10.9	5.0	11.5	43.0	387.8	10.1	3.1
10/17/2005 12:53	8924.2	10.9	5.5	12.7	41.8	389.0	10.3	4.3
10/18/2005 7:55	8943.3	10.9	5.2	12.0	42.5	388.3	11.1	3.6
10/18/2005 14:59	8921.2	10.9	5.5	12.8	41.7	389.1	11.4	4.4
10/18/2005 17:31	8863.3	10.9	6.5	14.9	39.6	391.2	11.5	6.5
10/19/2005 7:47	8887.9	10.9	6.1	14.0	40.5	390.3	12.1	5.6
10/19/2005 13:31	8860.9	10.9	6.5	15.0	39.5	391.3	12.3	6.6
10/19/2005 17:25	8841.3	11.1	6.8	15.7	38.8	392.0	12.5	7.3
10/20/2005 8:15	8826.3	11.2	7.0	16.3	38.2	392.6	13.1	7.9
10/20/2005 13:51	8825.9	10.9	7.0	16.3	38.2	392.6	13.3	7.9
10/21/2005 8:00	8824.7	11	7.1	16.3	38.2	392.6	14.1	7.9
10/21/2005 13:02	8826	10.9	7.0	16.3	38.2	392.6	14.3	7.9
10/22/2005 8:41	8833.5	10.9	6.9	16.0	38.5	392.3	15.1	7.6
10/24/2005 15:19	8833.1	10.9	6.9	16.0	38.5	392.3	17.4	7.6
10/26/2005 16:17	8831.6	10.9	7.0	16.0	38.5	392.4	19.4	7.7
10/27/2005 14:56	8824.1	10.9	7.1	16.3	38.2	392.7	20.4	7.9
10/28/2005 15:39	8820.1	11	7.1	16.5	38.0	392.8	21.4	8.1
10/31/2005 10:42	8828.7	10.9	7.0	16.2	38.3	392.5	24.2	7.8
11/2/2005 14:49	8833.1	10.9	6.9	16.0	38.5	392.3	26.3	7.6
11/4/2005 11:15	8844.5	10.9	6.7	15.6	38.9	391.9	28.2	7.2
11/7/2005 14:51	8845	10.9	6.7	15.6	38.9	391.9	31.3	7.2
11/11/2005 13:56	8855	10.9	6.6	15.2	39.3	391.5	35.3	6.8
11/14/2005 16:43	8849.6	11	6.7	15.4	39.1	391.7	38.4	7.0
11/17/2005 15:25	8850.6	10.9	6.7	15.4	39.1	391.7	41.4	7.0
11/21/2005 12:18	8854.2	10.9	6.6	15.2	39.3	391.5	45.2	6.8
12/2/2005 11:48	8859.2	10.9	6.5	15.0	39.5	391.4	56.2	6.7
12/6/2005 14:48	8838	10.9	6.9	15.8	38.7	392.1	60.3	7.4
12/15/2005 14:36	8849	10.9	6.7	15.4	39.1	391.7	69.3	7.0
12/22/2005 15:16	8865.2	10.9	6.4	14.8	39.7	391.1	76.4	6.4

**Wastedbed 13 Pilot Study**

**A-5 (55 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout =

0 to 43.3 ft

Bentonite Seal =

43.3 to 51.5 ft

Sandpack =

51.5 to 55 ft

Depth to piezometer tip from ground surface =

54.5 ft

Ro =

9275.2

To =

15.9 degrees Celsius

Linear Gage Factor (psi) =

0.01586 psi/digit

Thermal Factor =

0.016431 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.83 ft

Piezometer Tip Elevation =

376.33 ft

Serial # 04-12608

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/29/2005 11:01	8891.6	10.9	6.0	13.9	40.6	390.2	83.2	5.5
1/5/2006 13:59	8880.8	10.9	6.2	14.2	40.3	390.6	90.3	5.9
1/12/2006 10:32	8849.8	10.9	6.7	15.4	39.1	391.7	97.2	7.0
1/19/2006 13:33	8820.9	10.9	7.1	16.4	38.1	392.8	104.3	8.1
1/26/2006 14:06	8806.6	10.9	7.3	17.0	37.5	393.3	111.3	8.6
2/2/2006 11:20	8822.7	10.9	7.1	16.4	38.1	392.7	118.2	8.0
2/9/2006 12:22	8815	10.9	7.2	16.7	37.8	393.0	125.2	8.3
2/16/2006 11:13	8819.4	10.9	7.1	16.5	38.0	392.8	132.2	8.1
2/23/2006 14:12	8839.5	10.8	6.8	15.8	38.7	392.1	139.3	7.4
3/2/2006 11:47	8863.2	10.9	6.5	14.9	39.6	391.2	146.2	6.5
3/9/2006 15:13	8887.6	10.8	6.1	14.0	40.5	390.3	153.4	5.6
3/16/2006 14:04	8873.2	10.8	6.3	14.5	40.0	390.8	160.3	6.1
3/23/2006 14:55	8861.5	10.8	6.5	14.9	39.6	391.3	167.4	6.6
3/31/2006 15:26	8880.3	10.9	6.2	14.3	40.2	390.6	175.4	5.9
4/6/2006 13:50	8889.7	10.8	6.0	13.9	40.6	390.2	181.3	5.5
4/13/2006 16:01	8895.5	10.9	5.9	13.7	40.8	390.0	188.4	5.3
4/20/2006 15:53	8905.5	10.9	5.8	13.3	41.2	389.7	195.4	5.0
4/26/2006 14:32	8909.4	10.8	5.7	13.2	41.3	389.5	201.3	4.8
5/4/2006 14:06	8910.8	10.8	5.7	13.1	41.4	389.5	209.3	4.8
5/11/2006 15:05	8926.9	11	5.4	12.6	41.9	388.9	216.4	4.2
5/18/2006 14:45	8944.8	10.8	5.2	11.9	42.6	388.2	223.3	3.5
5/25/2006 14:33	8943.4	10.8	5.2	12.0	42.5	388.3	230.3	3.6
6/1/2006 14:20	8943.8	10.8	5.2	11.9	42.6	388.3	237.3	3.5
6/8/2006 14:35	8950.5	10.8	5.1	11.7	42.8	388.0	244.3	3.3
6/15/2006 13:34	8948.3	10.8	5.1	11.8	42.7	388.1	251.3	3.4
6/22/2006 13:50	8954.9	10.9	5.0	11.5	43.0	387.9	258.3	3.1
6/29/2006 15:17	8961.5	10.8	4.9	11.3	43.2	387.6	265.4	2.9
7/6/2006 15:09	8962.8	10.8	4.9	11.2	43.3	387.6	272.4	2.9
7/13/2006 14:48	8961.8	10.8	4.9	11.3	43.2	387.6	279.3	2.9
7/20/2006 10:31	8931.7	10.8	5.4	12.4	42.1	388.7	286.2	4.0
7/27/2006 10:10	8936.7	10.8	5.3	12.2	42.3	388.5	293.2	3.8
8/3/2006 9:54	8944.3	10.8	5.2	11.9	42.6	388.2	300.1	3.5
8/10/2006 13:42	8950.8	10.8	5.1	11.7	42.8	388.0	307.3	3.3
8/17/2006 15:33	8952.3	10.8	5.0	11.6	42.9	388.0	314.4	3.2
8/24/2006 15:14	8968.4	10.8	4.8	11.0	43.5	387.4	321.4	2.6
8/31/2006 10:02	8967.9	10.8	4.8	11.1	43.4	387.4	328.1	2.7
9/7/2006 14:46	8978.5	10.8	4.6	10.7	43.8	387.0	335.3	2.3
9/14/2006 14:46	8985.1	10.8	4.5	10.4	44.1	386.8	342.3	2.0
9/21/2006 17:18	8987.4	10.8	4.5	10.3	44.2	386.7	349.4	2.0
9/28/2006 15:29	8999.6	11	4.3	9.9	44.6	386.2	356.4	1.5
10/5/2006 15:46	8973.6	10.8	4.7	10.8	43.7	387.2	363.4	2.5
10/12/2006 14:54	8985.5	10.8	4.5	10.4	44.1	386.7	370.3	2.0
10/20/2006 14:21	8975.9	11.1	4.7	10.8	43.7	387.1	378.3	2.4
10/26/2006 15:14	8915.9	10.8	5.6	13.0	41.5	389.3	384.4	4.6
11/8/2006 13:02	8896.1	10.8	5.9	13.7	40.8	390.0	397.3	5.3
11/15/2006 16:20	8895.3	10.8	5.9	13.7	40.8	390.0	404.4	5.3
12/7/2006 15:18	8856.4	10.8	6.6	15.1	39.4	391.5	426.4	6.7

**Wastebed 13 Pilot Study**

**A-5 (55 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = 0 to 43.3 ft

Bentonite Seal = 43.3 to 51.5 ft

Sandpack = 51.5 to 55 ft

Depth to piezometer tip from ground surface = 54.5 ft

Ro = 9275.2

To = 15.9 degrees Celsius

Linear Gage Factor (psi) = 0.01586 psi/digit

Thermal Factor = 0.016431 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.83 ft

Piezometer Tip Elevation = 376.33 ft

Serial # 04-12608

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/14/2006 14:16	8872	10.7	6.3	14.6	39.9	390.9	433.3	6.2
12/21/2006 13:38	8875.9	10.8	6.2	14.4	40.1	390.8	440.3	6.0
12/28/2006 13:55	8872.4	10.8	6.3	14.5	40.0	390.9	447.3	6.2
1/11/2007 15:42	8847	10.8	6.7	15.5	39.0	391.8	461.4	7.1
3/7/2007 11:06	8942.3	10.8	5.2	12.0	42.5	388.3	516.2	3.6
4/12/2007 11:28	8765.3	10.8	8.0	18.5	36.0	394.8	552.2	10.1
5/10/2007 11:53	8782.5	11	7.7	17.8	36.7	394.2	580.2	9.5
6/21/2007 13:22	8971.7	10.7	4.7	10.9	43.6	387.2	622.3	2.5
7/12/2007 13:25	9005.9	10.7	4.2	9.7	44.8	386.0	643.3	1.3
8/15/2007 13:36	9033.7	10.7	3.7	8.6	45.9	385.0	677.3	0.3
9/20/2007 14:42	9038.3	10.7	3.7	8.5	46.0	384.8	713.3	0.1
10/25/2007 15:22	9036.1	10.6	3.7	8.6	45.9	384.9	748.4	0.2
11/28/2007 12:40	8963.2	10.7	4.9	11.2	43.3	387.6	782.3	2.8
12/28/2007 13:06	8860.3	10.6	6.5	15.0	39.5	391.3	812.3	6.6
3/6/2008 12:32	8828.7	10.5	7.0	16.1	38.4	392.5	881.3	7.8
6/13/2008 12:37	8951.3	10.6	5.0	11.7	42.8	388.0	980.3	3.3
9/18/2008 14:12	8999.9	10.6	4.3	9.9	44.6	386.2	1077.3	1.5

**Wastedbed 13 Pilot Study**

**A-6 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = 0 to 8.9 ft

Bentonite Seal = 8.9 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 9525.8

To = 17.6 degrees Celsius

Linear Gage Factor (psi) = 0.01624 psi/digit

Thermal Factor = 0.007062 psi/°C

Unit Weight of Water = 62.4pcf

Initial Ground Surface Elevation = 430.29 ft

Piezometer Tip Elevation = 415.79 ft

Serial # 04-12603

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/28/2005 15:00	9329.5	17.9	3.2	7.4	7.1	423.2		
9/28/2005 16:00	9406.6	17.8	1.9	4.5	10.0	420.3		
9/30/2005 13:40	9527.0	10.7	-0.1	-0.2	>= 14.5 ft	NA		
10/7/2005 6:30	9527.2	10.3	-0.1	-0.2	>= 14.5 ft	NA	0	0
10/8/2005 9:14	9527.9	10.3	-0.1	-0.2	>= 14.5 ft	NA	1.1	0.0
10/10/2005 8:40	9522.8	10.3	0.0	0.0	>= 14.5 ft	NA	3.1	0.2
10/10/2005 8:46	9522.8	10.3	0.0	0.0	>= 14.5 ft	NA	3.1	0.2
10/10/2005 9:01	9523	10.3	0.0	0.0	>= 14.5 ft	NA	3.1	0.2
10/10/2005 9:15	9522.9	10.3	0.0	0.0	>= 14.5 ft	NA	3.1	0.2
10/10/2005 9:31	9522.8	10.3	0.0	0.0	>= 14.5 ft	NA	3.1	0.2
10/10/2005 10:01	9521.7	10.3	0.0	0.0	14.5	415.8	3.1	0.2
10/10/2005 10:18	9520.8	10.3	0.0	0.1	14.4	415.9	3.2	0.2
10/10/2005 10:31	9520.8	10.3	0.0	0.1	14.4	415.9	3.2	0.2
10/10/2005 10:47	9520.5	10.3	0.0	0.1	14.4	415.9	3.2	0.3
10/10/2005 11:00	9520.5	10.3	0.0	0.1	14.4	415.9	3.2	0.3
10/10/2005 11:16	9520.4	10.3	0.0	0.1	14.4	415.9	3.2	0.3
10/10/2005 11:30	9520.4	10.3	0.0	0.1	14.4	415.9	3.2	0.3
10/10/2005 13:18	9520.6	10.3	0.0	0.1	14.4	415.9	3.3	0.2
10/10/2005 16:23	9520.8	10.3	0.0	0.1	14.4	415.9	3.4	0.2
10/11/2005 7:45	9520.6	10.3	0.0	0.1	14.4	415.9	4.1	0.2
10/11/2005 11:37	9520.2	10.3	0.0	0.1	14.4	415.9	4.2	0.3
10/11/2005 17:19	9527.9	10.3	-0.1	-0.2	>= 14.5 ft	NA	4.5	0.0
10/12/2005 8:44	9527.9	10.3	-0.1	-0.2	>= 14.5 ft	NA	5.1	0.0
10/12/2005 13:59	9518.7	10.3	0.1	0.1	14.4	415.9	5.3	0.3
10/12/2005 16:52	9516.9	10.4	0.1	0.2	14.3	416.0	5.4	0.4
10/13/2005 7:25	9515.6	10.3	0.1	0.3	14.2	416.1	6.0	0.4
10/14/2005 10:41	9515.0	10.9	0.1	0.3	14.2	416.1	7.2	0.5
10/15/2005 7:32	9445.8	10.3	1.2	2.9	11.6	418.7	8.0	3.1
10/15/2005 12:43	9438.9	10.4	1.4	3.1	11.4	418.9	8.3	3.3
10/15/2005 16:42	9434.5	10.3	1.4	3.3	11.2	419.1	8.4	3.5
10/17/2005 7:40	9421.1	10.3	1.6	3.8	10.7	419.6	10.0	4.0
10/17/2005 12:46	9416.5	10.3	1.7	4.0	10.5	419.8	10.3	4.1
10/18/2005 7:31	9422.8	10.3	1.6	3.7	10.8	419.5	11.0	3.9
10/18/2005 15:09	9374.3	10.3	2.4	5.6	8.9	421.3	11.4	5.7
10/18/2005 17:40	9378.4	10.3	2.3	5.4	9.1	421.2	11.5	5.6
10/19/2005 7:57	9384.2	10.3	2.2	5.2	9.3	421.0	12.1	5.4
10/19/2005 13:38	9374.2	10.3	2.4	5.6	8.9	421.4	12.3	5.7
10/19/2005 17:31	9321	10.3	3.3	7.6	6.9	423.3	12.5	7.7
10/20/2005 8:24	9349.1	10.3	2.8	6.5	8.0	422.3	13.1	6.7
10/20/2005 13:59	9356.7	10.3	2.7	6.2	8.3	422.0	13.3	6.4
10/21/2005 7:46	9375.1	10.3	2.4	5.5	9.0	421.3	14.1	5.7
10/21/2005 12:44	9378	10.3	2.3	5.4	9.1	421.2	14.3	5.6
10/22/2005 8:20	9392.8	10.4	2.1	4.9	9.6	420.7	15.1	5.0
10/24/2005 15:08	9380.8	10.4	2.3	5.3	9.2	421.1	17.4	5.5
10/26/2005 16:03	9349.6	10.4	2.8	6.5	8.0	422.3	19.4	6.7
10/27/2005 14:38	9354.7	10.4	2.7	6.3	8.2	422.1	20.3	6.5

**Wastedbed 13 Pilot Study**

**A-6 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = 0 to 8.9 ft

Bentonite Seal = 8.9 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 9525.8

To = 17.6 degrees Celsius

Linear Gage Factor (psi) = 0.01624 psi/digit

Thermal Factor = 0.007062 psi/°C

Unit Weight of Water = 62.4pcf

Initial Ground Surface Elevation = 430.29 ft

Piezometer Tip Elevation = 415.79 ft

Serial # 04-12603

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/28/2005 15:25	9364.5	10.4	2.6	5.9	8.6	421.7	21.4	6.1
10/31/2005 10:32	9401	10.4	2.0	4.6	9.9	420.3	24.2	4.7
11/2/2005 14:38	9422.9	10.4	1.6	3.7	10.8	419.5	26.3	3.9
11/4/2005 11:02	9434.8	10.4	1.4	3.3	11.2	419.1	28.2	3.5
11/7/2005 14:37	9435.5	10.4	1.4	3.3	11.2	419.1	31.3	3.4
11/11/2005 13:45	9423	10.5	1.6	3.7	10.8	419.5	35.3	3.9
11/14/2005 16:52	9420.5	10.5	1.7	3.8	10.7	419.6	38.4	4.0
11/17/2005 15:12	9357.1	10.5	2.7	6.2	8.3	422.0	41.4	6.4
11/21/2005 12:09	9407.7	10.5	1.9	4.3	10.2	420.1	45.2	4.5
12/2/2005 11:33	9375.8	10.5	2.4	5.5	9.0	421.3	56.2	5.7
12/6/2005 14:37	9397.4	10.6	2.0	4.7	9.8	420.5	60.3	4.9
12/15/2005 14:15	9431.1	10.6	1.5	3.4	11.1	419.2	69.3	3.6
12/22/2005 15:01	9444.6	10.7	1.3	2.9	11.6	418.7	76.4	3.1
12/29/2005 10:39	9435.5	10.7	1.4	3.3	11.2	419.1	83.2	3.4
1/5/2006 13:42	9398.8	10.7	2.0	4.6	9.9	420.4	90.3	4.8
1/12/2006 10:20	9347.1	10.8	2.9	6.6	7.9	422.4	97.2	6.8
1/19/2006 13:19	9353.6	10.8	2.7	6.3	8.2	422.1	104.3	6.5
1/26/2006 13:49	9367.1	10.9	2.5	5.8	8.7	421.6	111.3	6.0
2/2/2006 11:07	9360.1	10.8	2.6	6.1	8.4	421.9	118.2	6.3
2/9/2006 12:07	9357.4	10.8	2.7	6.2	8.3	422.0	125.2	6.4
2/16/2006 11:01	9394.1	10.9	2.1	4.8	9.7	420.6	132.2	5.0
2/23/2006 13:56	9415.5	10.9	1.7	4.0	10.5	419.8	139.3	4.2
3/2/2006 11:33	9446.6	10.9	1.2	2.9	11.6	418.6	146.2	3.0
3/9/2006 15:01	9456.9	10.9	1.1	2.5	12.0	418.3	153.4	2.6
3/16/2006 13:49	9376.3	10.9	2.4	5.5	9.0	421.3	160.3	5.7
3/23/2006 14:20	9422.2	11	1.6	3.8	10.7	419.6	167.3	3.9
3/31/2006 15:12	9439.4	10.9	1.4	3.1	11.4	418.9	175.4	3.3
4/6/2006 13:36	9444.3	10.9	1.3	2.9	11.6	418.7	181.3	3.1
4/13/2006 15:48	9441.1	10.9	1.3	3.1	11.4	418.9	188.4	3.2
4/20/2006 15:38	9442.2	10.9	1.3	3.0	11.5	418.8	195.4	3.2
4/26/2006 14:18	9431.3	10.9	1.5	3.4	11.1	419.2	201.3	3.6
5/4/2006 13:52	9436.7	10.9	1.4	3.2	11.3	419.0	209.3	3.4
5/11/2006 14:51	9447.5	10.8	1.2	2.8	11.7	418.6	216.3	3.0
5/18/2006 14:02	9455.9	10.8	1.1	2.5	12.0	418.3	223.3	2.7
5/25/2006 14:20	9451.3	10.8	1.2	2.7	11.8	418.5	230.3	2.9
6/1/2006 14:08	9449.6	10.9	1.2	2.7	11.8	418.5	237.3	2.9
6/8/2006 14:20	9449.8	10.8	1.2	2.7	11.8	418.5	244.3	2.9
6/15/2006 13:22	9449.8	10.8	1.2	2.7	11.8	418.5	251.3	2.9
6/22/2006 13:37	9451.1	10.7	1.2	2.7	11.8	418.5	258.3	2.9
6/29/2006 15:03	9451.5	10.7	1.2	2.7	11.8	418.5	265.4	2.8
7/6/2006 14:55	9453.7	10.7	1.1	2.6	11.9	418.4	272.4	2.8
7/13/2006 14:33	9366.7	10.7	2.5	5.9	8.6	421.6	279.3	6.0
7/20/2006 10:13	9426	10.8	1.6	3.6	10.9	419.4	286.2	3.8
7/27/2006 9:54	9439.9	10.6	1.3	3.1	11.4	418.9	293.1	3.3
8/3/2006 9:37	9446.9	10.6	1.2	2.8	11.7	418.6	300.1	3.0
8/10/2006 13:28	9447.3	10.6	1.2	2.8	11.7	418.6	307.3	3.0

**Wastebed 13 Pilot Study**

**A-6 (15 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/28/2005

Grout = 0 to 8.9 ft

Bentonite Seal = 8.9 to 11.5 ft

Sandpack = 11.5 to 15 ft

Depth to piezometer tip from ground surface = 14.5 ft

Ro = 9525.8

To = 17.6 degrees Celsius

Linear Gage Factor (psi) = 0.01624 psi/digit

Thermal Factor = 0.007062 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.29 ft

Piezometer Tip Elevation = 415.79 ft

Serial # 04-12603

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
8/17/2006 15:21	9450.6	10.6	1.2	2.7	11.8	418.5	314.4	2.9
8/24/2006 15:01	9457	10.6	1.1	2.5	12.0	418.3	321.4	2.6
8/31/2006 9:48	9460	10.6	1.0	2.4	12.1	418.1	328.1	2.5
9/7/2006 14:32	9462.6	10.6	1.0	2.3	12.2	418.0	335.3	2.4
9/14/2006 14:30	9466.1	10.6	0.9	2.1	12.4	417.9	342.3	2.3
9/21/2006 17:06	9469.3	10.7	0.9	2.0	12.5	417.8	349.4	2.2
9/28/2006 15:16	9472.1	10.7	0.8	1.9	12.6	417.7	356.4	2.1
10/5/2006 15:31	9461.2	10.7	1.0	2.3	12.2	418.1	363.4	2.5
10/12/2006 14:32	9465.9	10.6	0.9	2.1	12.4	417.9	370.3	2.3
10/20/2006 14:03	9407	10.7	1.9	4.3	10.2	420.1	378.3	4.5
10/26/2006 14:51	9400.1	10.8	2.0	4.6	9.9	420.4	384.3	4.8
11/8/2006 12:51	9439.8	10.7	1.3	3.1	11.4	418.9	397.3	3.3
11/15/2006 16:05	9429.6	10.8	1.5	3.5	11.0	419.3	404.4	3.7
12/7/2006 14:56	9390.6	11	2.1	5.0	9.5	420.7	426.4	5.1
12/14/2006 13:58	9433.1	11	1.5	3.4	11.1	419.2	433.3	3.5
12/21/2006 13:21	9436.7	11	1.4	3.2	11.3	419.0	440.3	3.4
12/28/2006 13:37	9369.3	11.4	2.5	5.8	8.7	421.6	447.3	5.9
1/11/2007 15:17	9350.2	11.2	2.8	6.5	8.0	422.3	461.4	6.6
3/7/2007 10:07	9440.6	11.3	1.3	3.1	11.4	418.9	516.2	3.3
4/12/2007 11:15	9310.7	11.5	3.5	8.0	6.5	423.8	552.2	8.1
5/10/2007 11:41	9347	11.4	2.9	6.6	7.9	422.4	580.2	6.8
6/21/2007 13:06	9478.3	11.2	0.7	1.7	12.8	417.5	622.3	1.8
7/12/2007 13:05	9490.3	11	0.5	1.2	13.3	417.0	643.3	1.4
8/15/2007 13:17	9501.3	10.9	0.4	0.8	13.7	416.6	677.3	1.0
9/20/2007 14:16	9505.8	10.9	0.3	0.6	13.9	416.4	713.3	0.8
10/25/2007 15:26	9514.9	10.9	0.1	0.3	14.2	416.1	748.4	0.5
11/28/2007 12:20	9411.6	11.2	1.8	4.2	10.3	420.0	782.2	4.3
12/28/2007 12:40	9383.7	11.5	2.3	5.2	9.3	421.0	812.3	5.4
3/6/2008 12:18	9344.1	11.7	2.9	6.7	7.8	422.5	881.2	6.9
6/13/2008 12:10	9482.5	11.5	0.7	1.5	13.0	417.3	980.2	1.7
9/18/2008 13:45	9517.7	11.2	0.1	0.2	14.3	416.0	1077.3	0.4

**Wastedbed 13 Pilot Study**

**A-6 (30 ft)**

Typical Vibrating Wire Piezometer  
Date Installed: 9/28/2005

Serial # 04-12604

Grout = Approximately 0 to 21.5 ft  
Bentonite Seal = Approximately 21.5 to 26.5 ft  
Sandpack = 26.5 to 30 ft  
Depth to piezometer tip from ground surface = 29.5 ft  
Ro = 8991.2  
To = 14.8 degrees Celsius  
Linear Gage Factor (psi) = 0.01598 psi/digit  
Thermal Factor = 0.01338 psi/°C  
Unit Weight of Water = 62.4 pcf  
Initial Ground Surface Elevation = 430.38 ft  
Piezometer Tip Elevation = 400.88 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/28/2005 10:54	8309.3	13.7	10.9	25.1	4.4	426.0		
9/28/2005 11:14	8471.9	13.3	8.3	19.1	10.4	420.0		
9/30/2005 13:50	8891.9	11.2	1.5	3.6	25.9	404.4		
10/7/2005 6:30	8889.2	11.0	1.6	3.6	25.9	404.5	0	0
10/8/2005 9:16	8889.3	11.1	1.6	3.6	25.9	404.5	1	0.0
10/10/2005 8:39	8843.7	11	2.3	5.3	24.2	406.2	3	1.7
10/10/2005 8:54	8811.4	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 8:55	8820.6	11	2.7	6.2	23.3	407.1	3	2.5
10/10/2005 8:57	8824.3	11	2.6	6.0	23.5	406.9	3	2.4
10/10/2005 8:59	8826.7	11	2.6	5.9	23.6	406.8	3	2.3
10/10/2005 9:02	8825.8	11	2.6	6.0	23.5	406.9	3	2.3
10/10/2005 9:04	8829.9	11.1	2.5	5.8	23.7	406.7	3	2.2
10/10/2005 9:14	8825.5	11.1	2.6	6.0	23.5	406.9	3	2.4
10/10/2005 9:21	8827.2	11.1	2.6	5.9	23.6	406.8	3	2.3
10/10/2005 9:26	8827.6	11.2	2.6	5.9	23.6	406.8	3	2.3
10/10/2005 9:29	8823.9	11	2.6	6.1	23.4	406.9	3	2.4
10/10/2005 9:35	8815	11	2.8	6.4	23.1	407.3	3	2.7
10/10/2005 9:42	8825.1	11	2.6	6.0	23.5	406.9	3	2.4
10/10/2005 10:00	8826.1	11	2.6	6.0	23.5	406.9	3	2.3
10/10/2005 10:09	8819.9	11	2.7	6.2	23.3	407.1	3	2.6
10/10/2005 10:15	8805.8	11	2.9	6.7	22.8	407.6	3	3.1
10/10/2005 10:22	8810.9	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 10:29	8813.1	11	2.8	6.5	23.0	407.3	3	2.8
10/10/2005 10:33	8807.3	11	2.9	6.7	22.8	407.5	3	3.0
10/10/2005 10:35	8805.8	11	2.9	6.7	22.8	407.6	3	3.1
10/10/2005 10:36	8812.1	11	2.8	6.5	23.0	407.4	3	2.8
10/10/2005 10:37	8794.2	11	3.1	7.1	22.4	408.0	3	3.5
10/10/2005 10:38	8809.3	11	2.9	6.6	22.9	407.5	3	2.9
10/10/2005 10:39	8811.8	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 10:42	8810.8	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 10:43	8800.1	11	3.0	6.9	22.6	407.8	3	3.3
10/10/2005 10:43	8803.8	11	2.9	6.8	22.7	407.7	3	3.1
10/10/2005 10:44	8810.5	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 10:49	8811.6	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 10:51	8812.4	11	2.8	6.5	23.0	407.4	3	2.8
10/10/2005 10:53	8810.1	11	2.8	6.6	22.9	407.4	3	2.9
10/10/2005 10:56	8806.8	11	2.9	6.7	22.8	407.6	3	3.0
10/10/2005 10:58	8812.7	11	2.8	6.5	23.0	407.3	3	2.8
10/10/2005 11:03	8812.4	11	2.8	6.5	23.0	407.4	3	2.8
10/10/2005 11:07	8810.8	11	2.8	6.5	23.0	407.4	3	2.9
10/10/2005 11:11	8813.9	11	2.8	6.4	23.1	407.3	3	2.8
10/10/2005 11:14	8814.5	11	2.8	6.4	23.1	407.3	3	2.8
10/10/2005 11:19	8813.9	11	2.8	6.4	23.1	407.3	3	2.8
10/10/2005 11:24	8815.4	11	2.8	6.4	23.1	407.2	3	2.7
10/10/2005 11:30	8816	11.1	2.8	6.3	23.2	407.2	3	2.7
10/10/2005 13:16	8822	11	2.7	6.1	23.4	407.0	3	2.5
10/10/2005 13:35	8822.2	11	2.6	6.1	23.4	407.0	3	2.5
10/10/2005 16:22	8828.7	11	2.5	5.9	23.6	406.8	3	2.2
10/11/2005 7:44	8841.1	11	2.3	5.4	24.1	406.3	4	1.8
10/11/2005 11:36	8834.9	11	2.4	5.6	23.9	406.5	4	2.0
10/11/2005 17:17	8835.4	11.0	2.4	5.6	23.9	406.5	4	2.0
10/12/2005 8:42	8836.5	11	2.4	5.6	23.9	406.5	5	1.9

**Wastedbed 13 Pilot Study**

**A-6 (30 ft)**

Typical Vibrating Wire Piezometer  
Date Installed: 9/28/2005

Serial # 04-12604

Grout = Approximately 0 to 21.5 ft  
Bentonite Seal = Approximately 21.5 to 26.5 ft  
Sandpack = 26.5 to 30 ft  
Depth to piezometer tip from ground surface = 29.5 ft  
Ro = 8991.2  
To = 14.8 degrees Celsius  
Linear Gage Factor (psi) = 0.01598 psi/digit  
Thermal Factor = 0.01338 psi/°C  
Unit Weight of Water = 62.4 pcf  
Initial Ground Surface Elevation = 430.38 ft  
Piezometer Tip Elevation = 400.88 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/12/2005 13:58	8816.2	11	2.7	6.3	23.2	407.2	5	2.7
10/12/2005 16:53	8796.9	11	3.1	7.0	22.5	407.9	5	3.4
10/13/2005 7:24	8800.4	11.1	3.0	6.9	22.6	407.8	6	3.3
10/14/2005 10:42	8790.4	11.5	3.2	7.3	22.2	408.2	7	3.7
10/15/2005 7:33	8806.8	11	2.9	6.7	22.8	407.6	8	3.0
10/15/2005 12:43	8781.8	11.1	3.3	7.6	21.9	408.5	8	4.0
10/15/2005 16:42	8747.9	11	3.8	8.9	20.6	409.7	8	5.2
10/17/2005 7:42	8743	11	3.9	9.0	20.5	409.9	10	5.4
10/17/2005 12:47	8723.8	11	4.2	9.7	19.8	410.6	10	6.1
10/18/2005 7:30	8731.3	11	4.1	9.5	20.0	410.3	11	5.8
10/18/2005 15:10	8630.1	11	5.7	13.2	16.3	414.1	11	9.6
10/18/2005 17:39	8620.1	11	5.9	13.6	15.9	414.4	11	9.9
10/19/2005 7:58	8615.1	11	6.0	13.8	15.7	414.6	12	10.1
10/19/2005 13:38	8599.3	11	6.2	14.3	15.2	415.2	12	10.7
10/19/2005 17:32	8515.2	11	7.6	17.4	12.1	418.3	12	13.8
10/20/2005 8:25	8515.1	11	7.6	17.4	12.1	418.3	13	13.8
10/20/2005 14:00	8520	11	7.5	17.3	12.2	418.1	13	13.6
10/21/2005 7:47	8530.1	11	7.3	16.9	12.6	417.8	14	13.2
10/21/2005 12:46	8534	11	7.3	16.7	12.8	417.6	14	13.1
10/22/2005 8:21	8551.3	11	7.0	16.1	13.4	417.0	15	12.5
10/24/2005 15:09	8570.2	11	6.7	15.4	14.1	416.3	17	11.8
10/26/2005 16:04	8584.8	11	6.4	14.9	14.6	415.7	19	11.2
10/27/2005 14:39	8582	11	6.5	15.0	14.5	415.9	20	11.3
10/28/2005 15:26	8584.6	11	6.4	14.9	14.6	415.8	21	11.2
10/31/2005 10:33	8607	11	6.1	14.1	15.4	414.9	24	10.4
11/2/2005 14:39	8615.2	11	6.0	13.7	15.8	414.6	26	10.1
11/4/2005 11:03	8632	11	5.7	13.1	16.4	414.0	28	9.5
11/7/2005 14:38	8640.5	11.1	5.6	12.8	16.7	413.7	31	9.2
11/11/2005 13:45	8660.6	11	5.2	12.1	17.4	413.0	35	8.4
11/14/2005 16:52	8663.3	11	5.2	12.0	17.5	412.9	38	8.3
11/17/2005 15:13	8667.3	11	5.1	11.8	17.7	412.7	41	8.2
11/21/2005 12:10	8688	11	4.8	11.1	18.4	411.9	45	7.4
12/2/2005 11:33	8695.3	11	4.7	10.8	18.7	411.7	56	7.2
12/6/2005 14:38	8689.5	11	4.8	11.0	18.5	411.9	60	7.4
12/15/2005 14:17	8716.1	11	4.3	10.0	19.5	410.9	69	6.4
12/22/2005 15:00	8733	11	4.1	9.4	20.1	410.3	76	5.8
12/29/2005 10:40	8749.9	11	3.8	8.8	20.7	409.7	83	5.1
1/5/2006 13:43	8736.9	11	4.0	9.3	20.2	410.1	90	5.6
1/12/2006 10:21	8696.4	11	4.7	10.8	18.7	411.6	97	7.1
1/19/2006 13:20	8663.1	10.9	5.2	12.0	17.5	412.9	104	8.3
1/26/2006 13:50	8663.5	11	5.2	12.0	17.5	412.8	111	8.3
2/2/2006 11:08	8679.3	10.9	4.9	11.4	18.1	412.3	118	7.7
2/9/2006 12:08	8666.3	10.9	5.1	11.9	17.6	412.7	125	8.2
2/16/2006 11:02	8690.5	10.9	4.8	11.0	18.5	411.8	132	7.3
2/23/2006 13:57	8713.4	10.9	4.4	10.1	19.4	411.0	139	6.5
3/2/2006 11:34	8747.2	10.9	3.8	8.9	20.6	409.8	146	5.2
3/9/2006 15:01	8773.8	10.9	3.4	7.9	21.6	408.8	153	4.3
3/16/2006 13:50	8721.3	10.9	4.3	9.8	19.7	410.7	160	6.2
3/23/2006 14:41	8723.4	10.9	4.2	9.8	19.7	410.6	167	6.1

**Wastedbed 13 Pilot Study**

**A-6 (30 ft)**

Typical Vibrating Wire Piezometer  
Date Installed: 9/28/2005

Serial # 04-12604

Grout = Approximately 0 to 21.5 ft  
Bentonite Seal = Approximately 21.5 to 26.5 ft  
Sandpack = 26.5 to 30 ft  
Depth to piezometer tip from ground surface = 29.5 ft  
Ro = 8991.2  
To = 14.8 degrees Celsius  
Linear Gage Factor (psi) = 0.01598 psi/digit  
Thermal Factor = 0.01338 psi/°C  
Unit Weight of Water = 62.4 pcf  
Initial Ground Surface Elevation = 430.38 ft  
Piezometer Tip Elevation = 400.88 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
3/31/2006 15:13	8754.4	10.9	3.7	8.6	20.9	409.5	175	5.0
4/6/2006 13:37	8765.5	10.9	3.6	8.2	21.3	409.1	181	4.6
4/13/2006 15:49	8766.8	10.9	3.5	8.2	21.3	409.0	188	4.5
4/20/2006 15:39	8780.6	10.9	3.3	7.6	21.9	408.5	195	4.0
4/26/2006 14:19	8773.3	10.9	3.4	7.9	21.6	408.8	201	4.3
5/4/2006 13:53	8781.3	10.9	3.3	7.6	21.9	408.5	209	4.0
5/11/2006 14:52	8802.4	10.9	3.0	6.8	22.7	407.7	216	3.2
5/18/2006 14:03	8815.6	10.9	2.8	6.4	23.1	407.2	223	2.7
5/25/2006 14:20	8810.9	10.9	2.8	6.5	23.0	407.4	230	2.9
6/1/2006 14:09	8810.3	10.9	2.8	6.6	22.9	407.4	237	2.9
6/8/2006 14:21	8815.9	10.9	2.7	6.3	23.2	407.2	244	2.7
6/15/2006 13:23	8813.5	10.9	2.8	6.4	23.1	407.3	251	2.8
6/22/2006 13:37	8820.1	10.9	2.7	6.2	23.3	407.1	258	2.5
6/29/2006 15:04	8825.5	10.9	2.6	6.0	23.5	406.9	265	2.3
7/6/2006 14:56	8826.5	10.9	2.6	6.0	23.5	406.8	272	2.3
7/13/2006 14:34	8809.3	10.9	2.9	6.6	22.9	407.5	279	2.9
7/20/2006 10:14	8779.4	10.9	3.3	7.7	21.8	408.6	286	4.0
7/27/2006 9:55	8801.9	10.9	3.0	6.9	22.6	407.7	293	3.2
8/3/2006 9:38	8815	10.9	2.8	6.4	23.1	407.3	300	2.7
8/10/2006 13:29	8822.7	10.9	2.6	6.1	23.4	407.0	307	2.4
8/17/2006 15:22	8824.4	10.9	2.6	6.0	23.5	406.9	314	2.4
8/24/2006 15:02	8837.5	10.9	2.4	5.5	24.0	406.4	321	1.9
8/31/2006 9:48	8836	10.9	2.4	5.6	23.9	406.5	328	2.0
9/7/2006 14:33	8845.1	10.9	2.3	5.3	24.2	406.1	335	1.6
9/14/2006 14:32	8849.3	10.9	2.2	5.1	24.4	406.0	342	1.5
9/21/2006 17:06	8848.8	10.9	2.2	5.1	24.4	406.0	349	1.5
9/28/2006 15:17	8858.8	10.9	2.1	4.8	24.7	405.6	356	1.1
10/5/2006 15:32	8838.2	11	2.4	5.5	24.0	406.4	363	1.9
10/12/2006 15:33	8848	10.9	2.2	5.2	24.3	406.0	370	1.5
10/20/2006 14:04	8838.1	10.9	2.4	5.5	24.0	406.4	378	1.9
10/26/2006 14:53	8769.5	10.9	3.5	8.1	21.4	408.9	384	4.4
11/8/2006 12:51	8770.5	10.9	3.5	8.0	21.5	408.9	397	4.4
11/15/2006 16:05	8779.4	11	3.3	7.7	21.8	408.6	404	4.0
12/7/2006 14:57	8726.2	10.9	4.2	9.7	19.8	410.5	426	6.0
12/14/2006 13:59	8757.5	10.9	3.7	8.5	21.0	409.4	433	4.9
12/21/2006 13:22	8768.5	10.9	3.5	8.1	21.4	409.0	440	4.4
12/28/2006 13:38	8742.9	10.9	3.9	9.0	20.5	409.9	447	5.4
1/11/2007 15:19	8707.5	10.9	4.5	10.3	19.2	411.2	461	6.7
3/7/2007 10:09	8811.9	10.9	2.8	6.5	23.0	407.4	516	2.8
4/12/2007 11:16	8642.3	10.9	5.5	12.7	16.8	413.6	552	9.1
5/10/2007 11:41	8675.2	10.9	5.0	11.5	18.0	412.4	580	7.9
6/21/2007 13:07	8852.3	10.9	2.2	5.0	24.5	405.9	622	1.4
7/12/2007 13:06	8866.7	10.9	1.9	4.5	25.0	405.4	643	0.8
8/15/2007 13:19	8878.4	10.9	1.8	4.0	25.5	404.9	677	0.4
9/20/2007 14:18	8880.4	10.9	1.7	4.0	25.5	404.8	713	0.3
10/25/2007 15:26	8880.6	10.9	1.7	4.0	25.5	404.8	748	0.3
11/28/2007 12:20	8807.5	11	2.9	6.7	22.8	407.5	782	3.0
12/28/2007 12:40	8728.1	11.7	4.2	9.6	19.9	410.5	812	6.0
3/6/2008 12:18	8726.3	11.1	4.2	9.7	19.8	410.5	881	6.0
6/13/2008 12:10	8844.5	11	2.3	5.3	24.2	406.2	980	1.6
9/18/2008 13:45	8866.4	11	1.9	4.5	25.0	405.4	1077	0.8

**Wastedbed 13 Pilot Study**

**A-6 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout =

Serial # 04-12607

0 to 36.2 ft

Bentonite Seal =

36.2 to 41.5 ft

Sandpack =

41.5 to 45 ft

Depth to piezometer tip from ground surface =

44.5 ft

Ro =

9100.2

To =

15.9 degrees Celsius

Linear Gage Factor (psi) =

0.01581 psi/digit

Thermal Factor =

0.016392 psi/°C

Unit Weight of Water =

62.4 pcf

Initial Ground Surface Elevation =

430.39 ft

Piezometer Tip Elevation =

385.89 ft

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/27/2005 14:49	8098.2	15.9	15.8	36.6	7.9	422.4		
9/27/2005 15:12	8268.4	15.6	13.1	30.3	14.2	416.2		
10/7/2005 6:30	8957.3	11	2.2	5.0	39.5	390.9	0	0
10/8/2005 9:15	8955.3	11.1	2.2	5.1	39.4	391.0	1.1	0.1
10/10/2005 8:38	8919	11	2.8	6.4	38.1	392.3	3.1	1.4
10/10/2005 8:52	8895.7	11	3.2	7.3	37.2	393.2	3.1	2.2
10/10/2005 9:00	8895.3	11	3.2	7.3	37.2	393.2	3.1	2.3
10/10/2005 9:16	8890.5	11	3.2	7.5	37.0	393.4	3.1	2.4
10/10/2005 9:30	8888.1	11	3.3	7.6	36.9	393.4	3.1	2.5
10/10/2005 9:59	8880.2	11	3.4	7.8	36.7	393.7	3.1	2.8
10/10/2005 10:17	8861.1	11	3.7	8.5	36.0	394.4	3.2	3.5
10/10/2005 10:30	8863.4	11	3.7	8.5	36.0	394.3	3.2	3.4
10/10/2005 10:46	8858.5	11	3.7	8.6	35.9	394.5	3.2	3.6
10/10/2005 10:59	8860.2	11	3.7	8.6	35.9	394.5	3.2	3.5
10/10/2005 11:15	8861.9	11	3.7	8.5	36.0	394.4	3.2	3.5
10/10/2005 11:31	8862.5	11	3.7	8.5	36.0	394.4	3.2	3.5
10/10/2005 13:17	8869.4	11	3.6	8.2	36.3	394.1	3.3	3.2
10/10/2005 16:22	8878.3	11	3.4	7.9	36.6	393.8	3.4	2.9
10/11/2005 7:46	8884.2	11	3.3	7.7	36.8	393.6	4.1	2.7
10/11/2005 11:37	8886.4	11	3.3	7.6	36.9	393.5	4.2	2.6
10/11/2005 17:15	8881.8	11	3.4	7.8	36.7	393.7	4.4	2.8
10/12/2005 8:40	8880.2	11.0	3.4	7.8	36.7	393.7	5.1	2.8
10/12/2005 13:59	8855.7	11	3.8	8.7	35.8	394.6	5.3	3.7
10/12/2005 16:54	8841.6	11	4.0	9.2	35.3	395.1	5.4	4.2
10/13/2005 7:24	8850.5	11	3.9	8.9	35.6	394.8	6.0	3.9
10/14/2005 10:43	8847.0	11.6	3.9	9.1	35.4	395.0	7.2	4.0
10/15/2005 7:30	8862.4	10.9	3.7	8.5	36.0	394.4	8.0	3.5
10/15/2005 12:43	8843	11.1	4.0	9.2	35.3	395.1	8.3	4.2
10/15/2005 16:42	8816.2	11	4.4	10.2	34.3	396.1	8.4	5.1
10/17/2005 7:44	8811.5	11	4.5	10.3	34.2	396.2	10.1	5.3
10/17/2005 12:48	8790.1	11	4.8	11.1	33.4	397.0	10.3	6.1
10/18/2005 7:31	8798.2	11	4.7	10.8	33.7	396.7	11.0	5.8
10/18/2005 15:11	8723.3	11	5.9	13.6	30.9	399.5	11.4	8.5
10/18/2005 17:40	8711.3	11	6.1	14.0	30.5	399.9	11.5	9.0
10/19/2005 7:58	8700.4	11	6.2	14.4	30.1	400.3	12.1	9.4
10/19/2005 13:39	8683.1	11	6.5	15.0	29.5	400.9	12.3	10.0
10/19/2005 17:32	8612.8	11	7.6	17.6	26.9	403.5	12.5	12.6
10/20/2005 8:25	8615.1	11	7.6	17.5	27.0	403.4	13.1	12.5
10/20/2005 14:01	8620.4	11	7.5	17.3	27.2	403.2	13.3	12.3
10/21/2005 7:48	8628.2	11	7.4	17.0	27.5	402.9	14.1	12.0
10/21/2005 12:47	8630.2	11	7.4	17.0	27.5	402.9	14.3	11.9
10/22/2005 8:22	8643	11	7.1	16.5	28.0	402.4	15.1	11.5
10/24/2005 15:09	8657.3	11	6.9	16.0	28.5	401.9	17.4	10.9

**Wastedbed 13 Pilot Study**

**A-6 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout = 0 to 36.2 ft

Bentonite Seal = 36.2 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 9100.2

To = 15.9 degrees Celsius

Linear Gage Factor (psi) = 0.01581 psi/digit

Thermal Factor = 0.016392 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.39 ft

Piezometer Tip Elevation = 385.89 ft

Serial # 04-12607

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/26/2005 16:04	8674.8	11	6.6	15.3	29.2	401.2	19.4	10.3
10/27/2005 14:40	8672.3	11	6.7	15.4	29.1	401.3	20.3	10.4
10/28/2005 15:27	8672.8	11	6.7	15.4	29.1	401.3	21.4	10.4
10/31/2005 10:33	8689.6	11	6.4	14.8	29.7	400.7	24.2	9.8
11/2/2005 14:39	8698	10.9	6.3	14.5	30.0	400.4	26.3	9.5
11/4/2005 11:04	8712.6	10.9	6.0	14.0	30.5	399.8	28.2	8.9
11/7/2005 14:39	8716.2	10.9	6.0	13.8	30.7	399.7	31.3	8.8
11/11/2005 13:46	8730.4	11	5.8	13.3	31.2	399.2	35.3	8.3
11/14/2005 16:53	8730.1	10.9	5.8	13.3	31.2	399.2	38.4	8.3
11/17/2005 15:14	8737.7	11	5.7	13.0	31.5	398.9	41.4	8.0
11/21/2005 12:10	8751.4	10.9	5.4	12.5	32.0	398.4	45.2	7.5
12/2/2005 11:34	8766.1	10.9	5.2	12.0	32.5	397.9	56.2	7.0
12/6/2005 14:39	8749.4	10.9	5.5	12.6	31.9	398.5	60.3	7.6
12/15/2005 14:18	8764.1	11	5.2	12.1	32.4	398.0	69.3	7.0
12/22/2005 15:02	8778.2	11	5.0	11.6	32.9	397.5	76.4	6.5
12/29/2005 10:41	8803.3	10.9	4.6	10.6	33.9	396.5	83.2	5.6
1/5/2006 13:44	8795.3	10.9	4.7	10.9	33.6	396.8	90.3	5.9
1/12/2006 10:22	8766.2	10.9	5.2	12.0	32.5	397.9	97.2	7.0
1/19/2006 13:21	8737.5	10.9	5.7	13.0	31.5	398.9	104.3	8.0
1/26/2006 13:51	8726.7	10.9	5.8	13.4	31.1	399.3	111.3	8.4
2/2/2006 11:09	8744.5	10.9	5.5	12.8	31.7	398.7	118.2	7.8
2/9/2006 12:09	8736.9	10.9	5.7	13.1	31.4	399.0	125.2	8.0
2/16/2006 11:03	8742.5	10.9	5.6	12.9	31.6	398.8	132.2	7.8
2/23/2006 13:59	8763.9	10.9	5.2	12.1	32.4	398.0	139.3	7.1
3/2/2006 11:34	8787.6	10.9	4.9	11.2	33.3	397.1	146.2	6.2
3/9/2006 15:03	8811.6	10.9	4.5	10.3	34.2	396.2	153.4	5.3
3/16/2006 13:52	8793.3	10.9	4.8	11.0	33.5	396.9	160.3	6.0
3/23/2006 14:42	8782.3	10.9	4.9	11.4	33.1	397.3	167.3	6.4
3/31/2006 15:14	8801.9	10.9	4.6	10.7	33.8	396.6	175.4	5.7
4/6/2006 13:38	8810.3	10.9	4.5	10.4	34.1	396.3	181.3	5.4
4/13/2006 15:50	8814.8	10.9	4.4	10.2	34.3	396.1	188.4	5.2
4/20/2006 15:40	8824.6	10.8	4.3	9.9	34.6	395.8	195.4	4.8
4/26/2006 14:20	8827.2	10.9	4.2	9.8	34.7	395.7	201.3	4.7
5/4/2006 13:54	8829.6	10.8	4.2	9.7	34.8	395.6	209.3	4.7
5/11/2006 14:53	8848.2	10.9	3.9	9.0	35.5	394.9	216.3	4.0
5/18/2006 14:04	8865.9	11	3.6	8.4	36.1	394.3	223.3	3.3
5/25/2006 14:21	8858.4	10.8	3.7	8.6	35.9	394.5	230.3	3.6
6/1/2006 14:10	8857.7	10.8	3.8	8.7	35.8	394.5	237.3	3.6
6/8/2006 14:22	8866.1	10.8	3.6	8.3	36.2	394.2	244.3	3.3
6/15/2006 13:24	8865	10.8	3.6	8.4	36.1	394.3	251.3	3.4
6/22/2006 13:38	8872.7	10.8	3.5	8.1	36.4	394.0	258.3	3.1
6/29/2006 15:05	8879.5	10.8	3.4	7.9	36.6	393.7	265.4	2.8
7/6/2006 14:57	8881.5	10.8	3.4	7.8	36.7	393.7	272.4	2.8
7/13/2006 14:35	8881.5	10.8	3.4	7.8	36.7	393.7	279.3	2.8
7/20/2006 10:14	8851.8	10.8	3.8	8.9	35.6	394.8	286.2	3.8
7/27/2006 9:56	8860.6	10.8	3.7	8.5	36.0	394.4	293.1	3.5

**Wastedbed 13 Pilot Study**

**A-6 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout = 0 to 36.2 ft

Bentonite Seal = 36.2 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 9100.2

To = 15.9 degrees Celsius

Linear Gage Factor (psi) = 0.01581 psi/digit

Thermal Factor = 0.016392 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.39 ft

Piezometer Tip Elevation = 385.89 ft

Serial # 04-12607

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
8/3/2006 9:39	8872	10.8	3.5	8.1	36.4	394.0	300.1	3.1
8/10/2006 13:30	8879.9	10.8	3.4	7.8	36.7	393.7	307.3	2.8
8/17/2006 15:23	8880.8	10.8	3.4	7.8	36.7	393.7	314.4	2.8
8/24/2006 15:02	8896.4	10.8	3.1	7.2	37.3	393.1	321.4	2.2
8/31/2006 9:50	8894.4	10.8	3.2	7.3	37.2	393.2	328.1	2.3
9/7/2006 14:34	8904.7	10.8	3.0	6.9	37.6	392.8	335.3	1.9
9/14/2006 14:33	8910.9	10.8	2.9	6.7	37.8	392.6	342.3	1.7
9/21/2006 17:07	8912.7	10.8	2.9	6.6	37.9	392.5	349.4	1.6
9/28/2006 15:18	8925.5	10.9	2.7	6.2	38.3	392.1	356.4	1.2
10/5/2006 15:34	8910.8	10.9	2.9	6.7	37.8	392.6	363.4	1.7
10/12/2006 14:35	8925.5	10.8	2.7	6.2	38.3	392.1	370.3	1.2
10/20/2006 14:06	8918.1	10.8	2.8	6.5	38.0	392.3	378.3	1.4
10/26/2006 14:57	8854	10.9	3.8	8.8	35.7	394.7	384.4	3.8
11/8/2006 12:52	8841.3	10.8	4.0	9.3	35.2	395.1	397.3	4.2
11/15/2006 16:06	8841.1	10.8	4.0	9.3	35.2	395.2	404.4	4.2
12/7/2006 14:58	8805.4	10.8	4.6	10.6	33.9	396.5	426.4	5.5
12/14/2006 14:00	8820.1	10.8	4.3	10.0	34.5	395.9	433.3	5.0
12/21/2006 13:23	8824.2	10.8	4.3	9.9	34.6	395.8	440.3	4.8
12/28/2006 13:39	8819.7	10.8	4.4	10.0	34.5	395.9	447.3	5.0
1/11/2007 15:20	8794.5	10.8	4.7	11.0	33.5	396.9	461.4	5.9
3/7/2007 10:10	8888	10.8	3.3	7.5	37.0	393.4	516.2	2.5
4/12/2007 11:17	8724.8	10.8	5.9	13.5	31.0	399.4	552.2	8.5
5/10/2007 11:42	8737.9	10.8	5.6	13.0	31.5	398.9	580.2	8.0
6/21/2007 13:08	8922.3	10.7	2.7	6.3	38.2	392.2	622.3	1.3
7/12/2007 13:07	8949.7	10.7	2.3	5.3	39.2	391.2	643.3	0.3
8/15/2007 13:20	8971.9	10.8	1.9	4.5	40.0	390.4	677.3	-0.5
9/20/2007 14:20	8975.7	10.7	1.9	4.3	40.2	390.2	713.3	-0.7
10/25/2007 15:26	8978	10.7	1.8	4.3	40.2	390.2	748.4	-0.8
11/28/2007 12:20	8913.4	10.7	2.9	6.6	37.9	392.5	782.2	1.6
12/28/2007 12:40	8815.3	10.7	4.4	10.2	34.3	396.1	812.3	5.2
3/6/2008 12:18	8784.6	10.6	4.9	11.3	33.2	397.2	881.2	6.3
6/13/2008 12:10	8918.9	10.6	2.8	6.4	38.1	392.3	980.2	1.4
9/18/2008 13:45	8960.4	10.7	2.1	4.9	39.6	390.8	1077.3	-0.1

**Wastebed 13 Pilot Study**

**A-7 (15 ft)**

Standpipe Piezometer

Date Installed: 9/15/2005

Grout =

0 to 7 ft

Bentonite Seal =

7 to 9.5 ft

Sandpack Set Depth =

9.5 to 15 ft

Screened Interval =

12 to 15 ft

Piezometer Set Depth =

15 ft

Initial Casing Stickup =

4 ft

Intermediate Casing Stickup as of 10/11/05 =

8.9 ft

Final Casing Stickup as of 10/19/05 =

13.9 ft

Initial Top of Casing Elevation =

433.92 ft

Intermediate Top of Casing Elevation =

438.85 ft

Final Top of Casing Elevation =

443.85 ft

Initial Ground Surface Elevation =

429.92 ft

Standpipe Tip Elevation =

414.92 ft

\*\* Indicates that a baseline piezometric level of 15 ft bgs was assumed for this calculation.

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)**
9/19/2005 13:50	Dry (Init)	Dry	Dry		
10/8/2005 9:35	Dry (Init)	Dry	Dry	1	0
10/10/2005 8:24	Dry (Init)	Dry	Dry	3.0	NA
10/10/2005 13:21	Dry (Init)	Dry	Dry	3.2	NA
10/11/2005 7:32	Dry (Init)	Dry	Dry	3.9	NA
10/11/2005 16:57	Dry (Init)	Dry	Dry	4.3	NA
10/12/2005 9:00	Dry (Inter)	Dry	Dry	5.0	NA
10/12/2005 17:42	Dry (Inter)	Dry	Dry	5.3	NA
10/13/2005 12:52	Dry (Inter)	Dry	Dry	6.1	NA
10/14/2005 11:09	Dry (Inter)	Dry	Dry	7.1	NA
10/15/2005 8:36	22.01	13.1	416.8	8.0	1.9
10/15/2005 17:18	20.75	11.8	418.1	8.3	3.2
10/17/2005 8:45	19.8	10.9	419.1	10.0	4.1
10/17/2005 13:35	19.8	10.9	419.1	10.2	4.1
10/18/2005 7:58	19.71	10.8	419.1	10.9	4.2
10/18/2005 15:45	19.31	10.4	419.5	11.3	4.6
10/18/2005 17:27	18.81	9.9	420.0	11.3	5.1
10/19/2005 7:42	18.78	9.8	420.1	11.9	5.2
10/20/2005 13:47	23.3	9.4	420.6	13.2	5.6
10/20/2005 15:41	23.35	9.4	420.5	13.3	5.6
10/21/2005 8:26	23.67	9.7	420.2	14.0	5.3
10/21/2005 13:32	23.7	9.8	420.2	14.2	5.2
10/22/2005 9:02	23.87	9.9	420.0	15.0	5.1
10/24/2005 15:29	23.7	9.8	420.2	17.2	5.2
10/26/2005 16:28	22.26	8.3	421.6	19.3	6.7
10/27/2005 15:10	22.75	8.8	421.1	20.2	6.2
10/28/2005 16:08	23.15	9.2	420.7	21.3	5.8
10/31/2005 10:50	23.88	9.9	420.0	24.1	5.1
11/2/2005 14:57	24.27	10.3	419.6	26.2	4.7
11/4/2005 11:26	24.45	10.5	419.4	28.1	4.5
11/7/2005 15:03	24.94	11.0	418.9	31.2	4.0
11/11/2005 13:34	24.43	10.5	419.4	35.2	4.5
11/14/2005 16:32	24.45	10.5	419.4	38.3	4.5
11/17/2005 15:10	22.5	8.6	421.4	41.2	6.4
11/21/2005 12:09	23.55	9.6	420.3	45.1	5.4
12/2/2005 11:30	22.54	8.6	421.3	56.1	6.4
12/6/2005 14:35	23.4	9.5	420.5	60.2	5.5

**Wastebed 13 Pilot Study**

**A-7 (15 ft)**

Standpipe Piezometer

Date Installed: 9/15/2005

Grout =

0 to 7 ft

Bentonite Seal =

7 to 9.5 ft

Sandpack Set Depth =

9.5 to 15 ft

Screened Interval =

12 to 15 ft

Piezometer Set Depth =

15 ft

Initial Casing Stickup =

4 ft

Intermediate Casing Stickup as of 10/11/05 =

8.9 ft

Final Casing Stickup as of 10/19/05 =

13.9 ft

Initial Top of Casing Elevation =

433.92 ft

Intermediate Top of Casing Elevation =

438.85 ft

Final Top of Casing Elevation =

443.85 ft

Initial Ground Surface Elevation =

429.92 ft

Standpipe Tip Elevation =

414.92 ft

\*\* Indicates that a baseline piezometric level of 15 ft bgs was assumed for this calculation.

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)**
12/15/2005 14:13	24.6	10.7	419.3	69.2	4.3
12/22/2005 14:55	25.58	11.6	418.3	76.2	3.4
12/29/2005 10:39	23.95	10.0	419.9	83.0	5.0
1/5/2006 13:41	22.82	8.9	421.0	90.2	6.1
1/12/2006 10:20	21.97	8.0	421.9	97.0	7.0
1/19/2006 13:19	22.47	8.5	421.4	104.2	6.5
1/26/2006 13:47	22.95	9.0	420.9	111.2	6.0
2/2/2006 11:09	22.41	8.5	421.4	118.1	6.5
2/9/2006 12:08	22.44	8.5	421.4	125.1	6.5
2/16/2006 10:55	23.4	9.5	420.5	132.1	5.5
2/23/2006 13:53	23.66	9.7	420.2	139.2	5.3
3/2/2006 11:32	24.5	10.6	419.4	146.1	4.4
3/9/2006 14:57	25.67	11.7	418.2	153.2	3.3
3/16/2006 13:45	22.9	9.0	421.0	160.2	6.0
3/23/2006 14:35	24.04	10.1	419.8	167.2	4.9
3/31/2006 15:10	24.73	10.8	419.1	175.2	4.2
4/6/2006 13:33	24.98	11.0	418.9	181.2	4.0
4/13/2006 15:47	25.05	11.1	418.8	188.3	3.9
4/20/2006 15:36	25.72	11.8	418.1	195.3	3.2
4/26/2006 14:17	24.29	10.4	419.6	201.2	4.6
5/4/2006 13:52	25.38	11.4	418.5	209.2	3.6
5/11/2006 14:48	25.95	12.0	417.9	216.2	3.0
5/18/2006 13:57	26.04	12.1	417.8	223.2	2.9
5/25/2006 14:20	26.17	12.2	417.7	230.2	2.8
6/1/2006 14:09	26.32	12.4	417.5	237.2	2.6
6/8/2006 14:15	26.24	12.3	417.6	244.2	2.7
6/15/2006 13:24	26.42	12.5	417.4	251.2	2.5
6/22/2006 13:34	26.65	12.7	417.2	258.2	2.3
6/29/2006 15:00	26.87	12.9	417.0	265.2	2.1
7/6/2006 14:22	27.11	13.2	416.7	272.2	1.8
7/13/2006 14:34	22.64	8.7	421.2	279.2	6.3
7/20/2006 10:12	24.85	10.9	419.0	286.0	4.1
7/27/2006 9:55	25.87	11.9	418.0	293.0	3.1
8/3/2006 9:40	26.09	12.2	417.8	300.0	2.8
8/10/2006 13:32	26.17	12.2	417.7	307.2	2.8
8/17/2006 15:24	26.61	12.7	417.2	314.2	2.3
8/24/2006 14:59	26.95	13.0	416.9	321.2	2.0

**Wastebed 13 Pilot Study**

**A-7 (15 ft)**

Standpipe Piezometer

Date Installed: 9/15/2005

Grout =

0 to 7 ft

Bentonite Seal =

7 to 9.5 ft

Sandpack Set Depth =

9.5 to 15 ft

Screened Interval =

12 to 15 ft

Piezometer Set Depth =

15 ft

Initial Casing Stickup =

4 ft

Intermediate Casing Stickup as of 10/11/05 =

8.9 ft

Final Casing Stickup as of 10/19/05 =

13.9 ft

Initial Top of Casing Elevation =

433.92 ft

Intermediate Top of Casing Elevation =

438.85 ft

Final Top of Casing Elevation =

443.85 ft

Initial Ground Surface Elevation =

429.92 ft

Standpipe Tip Elevation =

414.92 ft

\*\* Indicates that a baseline piezometric level of 15 ft bgs was assumed for this calculation.

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)**
8/31/2006 9:44	27.38	13.4	416.5	328.0	1.6
9/7/2006 14:23	27.43	13.5	416.4	335.2	1.5
9/14/2006 14:29	27.58	13.6	416.3	342.2	1.4
9/21/2006 17:05	27.68	13.7	416.2	349.3	1.3
9/28/2006 14:45	27.56	13.6	416.3	356.2	1.4
10/5/2006 15:29	26.4	12.5	417.5	363.2	2.5
10/12/2006 14:29	26.35	12.4	417.5	370.2	2.6
10/20/2006 15:06	22.61	8.7	421.2	378.2	6.3
10/26/2006 14:44	23.45	9.5	420.4	384.2	5.5
11/8/2006 12:46	24.15	10.2	419.7	397.1	4.8
11/15/2006 15:57	23.99	10.1	419.9	404.3	4.9
12/7/2006 14:48	23.15	9.2	420.7	426.2	5.8
12/14/2006 13:57	23.95	10.0	419.9	433.2	5.0
12/21/2006 13:19	24.81	10.9	419.0	440.2	4.1
12/28/2006 13:34	22.78	8.8	421.1	447.2	6.2
1/11/2007 15:13	22.43	8.5	421.4	461.2	6.5
2/22/2007 10:48	26.4	12.5	417.5	503.1	2.5
3/7/2007 10:27	25.18	11.2	418.7	516.0	3.8
4/12/2007 11:12	19.97	6.0	423.9	552.1	9.0
5/10/2007 11:38	21.81	7.9	422.0	580.1	7.1
6/21/2007 13:04	26.9	13.0	417.0	622.1	2.0
7/12/2007 13:04	28.08	14.1	415.8	643.1	0.9
8/15/2007 13:10	28.8	14.9	415.1	677.1	0.1
9/20/2007 14:10	dry				
10/25/2007 14:58	28.66	14.7	415.2	748.2	0.3
11/28/2007 12:16	23.94	10.0	419.9	782.1	5.0
12/28/2007 12:34	23	9.1	420.9	812.1	5.9
3/6/2008 12:15	22	8.1	421.9	881.1	6.9
6/13/2008 12:06	26.87	12.9	417.0	980.1	2.1
9/18/2008 13:39	28.64	14.7	415.2	1077.2	0.3

**Wastebed 13 Pilot Study**

**A-8 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout = Approximately 0 to 21.5 ft

Bentonite Seal = Approximately 21.5 to 26.5 ft

Sandpack = 26.5 to 30 ft

Depth to piezometer tip from ground surface = 29.5 ft

Hole Plug (hole overdrilled) = 30 to 45 ft

Ro = 8900.3

To = 15.5 degrees Celsius

Linear Gage Factor (psi) = 0.01521 psi/digit

Thermal Factor = 0.005123 psi/°C

Unit Weight of Water = 62.4 pcf

Ground Surface Elevation = 429.33 ft

Piezometer Tip Elevation = 399.83 ft

Serial # 04-12597

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/27/2005 12:13	8240.6	15	10.0	23.1	6.4	423.0		
9/27/2005 12:45	8411.2	14.3	7.4	17.2	12.3	417.0		
10/7/2005 6:30	8881.3	10.9	0.3	0.6	28.9	400.4	0	0
10/8/2005 8:47	8879	11	0.3	0.7	28.8	400.5	1.1	0.1
10/10/2005 8:26	8874.2	10.9	0.4	0.9	28.6	400.7	3.1	0.2
10/10/2005 11:41	8873.2	10.9	0.4	0.9	28.6	400.7	3.2	0.3
10/10/2005 16:31	8865.3	11	0.5	1.2	28.3	401.0	3.4	0.6
10/11/2005 8:01	8858.6	11	0.6	1.4	28.1	401.2	4.1	0.8
10/11/2005 11:47	8826.8	10.8	1.1	2.5	27.0	402.4	4.2	1.9
10/11/2005 17:24	8758.7	10.8	2.1	4.9	24.6	404.7	4.5	4.3
10/12/2005 8:48	8782.8	10.8	1.8	4.1	25.4	403.9	5.1	3.5
10/12/2005 14:23	8782.2	10.8	1.8	4.1	25.4	403.9	5.3	3.5
10/12/2005 17:01	8767.2	10.9	2.0	4.6	24.9	404.4	5.4	4.0
10/13/2005 8:40	8764	10.9	2.0	4.7	24.8	404.6	6.1	4.1
10/14/2005 10:04	8773.7	12.3	1.9	4.4	25.1	404.2	7.1	3.8
10/15/2005 7:55	8785.9	11.1	1.7	4.0	25.5	403.8	8.1	3.4
10/15/2005 12:46	8764.1	10.9	2.0	4.7	24.8	404.6	8.3	4.1
10/15/2005 16:45	8684.4	10.8	3.3	7.5	22.0	407.4	8.4	6.9
10/17/2005 8:30	8664.5	10.9	3.6	8.2	21.3	408.1	10.1	7.6
10/17/2005 13:10	8664.1	10.9	3.6	8.2	21.3	408.1	10.3	7.6
10/18/2005 8:00	8675.8	10.8	3.4	7.8	21.7	407.7	11.1	7.2
10/18/2005 15:28	8604.4	10.8	4.5	10.3	19.2	410.2	11.4	9.7
10/18/2005 17:27	8592	10.8	4.7	10.8	18.7	410.6	11.5	10.2
10/19/2005 7:41	8577	10.8	4.9	11.3	18.2	411.1	12.0	10.7
10/19/2005 13:43	8509.1	10.8	5.9	13.7	15.8	413.5	12.3	13.1
10/19/2005 17:22	8494.8	10.8	6.1	14.2	15.3	414.0	12.5	13.6
10/20/2005 8:03	8493.1	10.8	6.2	14.2	15.3	414.1	13.1	13.6
10/20/2005 14:09	8497.1	10.9	6.1	14.1	15.4	413.9	13.3	13.5
10/21/2005 8:11	8505.4	10.8	6.0	13.8	15.7	413.6	14.1	13.2
10/21/2005 13:14	8509.7	10.8	5.9	13.7	15.8	413.5	14.3	13.0
10/22/2005 8:58	8526.3	10.8	5.7	13.1	16.4	412.9	15.1	12.5
10/24/2005 15:27	8543.6	10.8	5.4	12.5	17.0	412.3	17.4	11.9
10/26/2005 16:26	8558.6	10.8	5.2	11.9	17.6	411.8	19.4	11.3
10/27/2005 15:08	8557.2	10.9	5.2	12.0	17.5	411.8	20.4	11.4
10/28/2005 15:52	8559	10.8	5.2	11.9	17.6	411.8	21.4	11.3
10/31/2005 10:49	8582.1	10.8	4.8	11.1	18.4	410.9	24.2	10.5
11/2/2005 14:55	8593.5	10.8	4.6	10.7	18.8	410.5	26.4	10.1
11/4/2005 11:24	8612	10.8	4.4	10.1	19.4	409.9	28.2	9.5
11/7/2005 15:01	8618.1	10.8	4.3	9.8	19.7	409.7	31.4	9.2
11/11/2005 13:39	8634.8	10.8	4.0	9.3	20.2	409.1	35.3	8.7
11/14/2005 16:32	8636.4	10.8	4.0	9.2	20.3	409.0	38.4	8.6
11/17/2005 15:32	8646.5	10.8	3.8	8.9	20.6	408.7	41.4	8.2
11/21/2005 12:24	8667.3	10.8	3.5	8.1	21.4	408.0	45.2	7.5
12/2/2005 11:54	8683.1	10.8	3.3	7.6	21.9	407.4	56.2	7.0
12/6/2005 14:55	8673.8	10.8	3.4	7.9	21.6	407.7	60.4	7.3
12/15/2005 14:49	8693.8	10.8	3.1	7.2	22.3	407.0	69.3	6.6
12/22/2005 15:27	8704.7	10.8	3.0	6.8	22.7	406.6	76.4	6.2

**Wastedbed 13 Pilot Study**

**A-8 (30 ft)**

Typical Vibrating Wire Piezometer  
Date Installed: 9/27/2005

Grout =	Approximately 0 to 21.5 ft
Bentonite Seal =	Approximately 21.5 to 26.5 ft
Sandpack =	26.5 to 30 ft
Depth to piezometer tip from ground surface =	29.5 ft
Hole Plug (hole overdrilled) =	30 to 45 ft
Ro =	8900.3
To =	15.5 degrees Celsius
Linear Gage Factor (psi) =	0.01521 psi/digit
Thermal Factor =	0.005123 psi/°C
Unit Weight of Water =	62.4 pcf
Ground Surface Elevation =	429.33 ft
Piezometer Tip Elevation =	399.83 ft

Serial # 04-12597

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/29/2005 11:12	8724.5	10.8	2.6	6.1	23.4	405.9	83.2	5.5
1/5/2006 14:09	8715.8	10.8	2.8	6.4	23.1	406.3	90.3	5.8
1/12/2006 10:40	8687.4	10.9	3.2	7.4	22.1	407.2	97.2	6.8
1/19/2006 13:43	8655.3	10.8	3.7	8.5	21.0	408.4	104.3	7.9
1/26/2006 14:15	8649.3	10.8	3.8	8.8	20.7	408.6	111.3	8.1
2/2/2006 11:28	8672.9	10.9	3.4	7.9	21.6	407.8	118.2	7.3
2/9/2006 12:33	8660.9	10.8	3.6	8.3	21.2	408.2	125.3	7.7
2/16/2006 11:22	8671.7	10.8	3.5	8.0	21.5	407.8	132.2	7.4
2/23/2006 14:21	8692.5	10.8	3.1	7.2	22.3	407.1	139.3	6.6
3/2/2006 11:56	8718.9	10.9	2.7	6.3	23.2	406.1	146.2	5.7
3/9/2006 15:22	8739	10.8	2.4	5.6	23.9	405.4	153.4	5.0
3/16/2006 14:13	8700.6	10.8	3.0	7.0	22.5	406.8	160.3	6.3
3/23/2006 15:04	8696.4	10.7	3.1	7.1	22.4	406.9	167.4	6.5
3/31/2006 15:35	8722.8	10.7	2.7	6.2	23.3	406.0	175.4	5.6
4/6/2006 13:59	8729.6	10.7	2.6	5.9	23.6	405.8	181.3	5.3
4/13/2006 16:09	8730.3	10.7	2.6	5.9	23.6	405.7	188.4	5.3
4/20/2006 16:02	8739.5	10.7	2.4	5.6	23.9	405.4	195.4	5.0
4/26/2006 14:42	8734.2	10.7	2.5	5.8	23.7	405.6	201.3	5.2
5/4/2006 14:14	8741.4	10.7	2.4	5.5	24.0	405.4	209.3	4.9
5/11/2006 15:13	8757	10.7	2.2	5.0	24.5	404.8	216.4	4.4
5/18/2006 14:53	8767.5	10.8	2.0	4.6	24.9	404.4	223.3	4.0
5/25/2006 14:42	8762.5	10.7	2.1	4.8	24.7	404.6	230.3	4.2
6/1/2006 14:27	8760.4	10.7	2.1	4.9	24.6	404.7	237.3	4.2
6/8/2006 14:42	8764.3	10.7	2.0	4.7	24.8	404.5	244.3	4.1
6/15/2006 13:42	8760.8	10.8	2.1	4.8	24.7	404.7	251.3	4.2
6/22/2006 13:57	8766.6	10.7	2.0	4.6	24.9	404.5	258.3	4.0
6/29/2006 15:26	8771.6	10.7	1.9	4.5	25.0	404.3	265.4	3.8
7/6/2006 15:19	8770.3	10.8	2.0	4.5	25.0	404.3	272.4	3.9
7/13/2006 14:54	8757.8	10.7	2.1	4.9	24.6	404.8	279.3	4.3
7/20/2006 10:39	8734.8	10.8	2.5	5.8	23.7	405.6	286.2	5.1
7/27/2006 10:20	8751.9	10.7	2.2	5.2	24.3	405.0	293.2	4.5
8/3/2006 10:05	8760.7	10.8	2.1	4.8	24.7	404.7	300.1	4.2
8/10/2006 13:49	8765.6	10.7	2.0	4.7	24.8	404.5	307.3	4.1
8/17/2006 15:41	8766.4	10.9	2.0	4.6	24.9	404.5	314.4	4.0
8/24/2006 15:21	8778.9	10.8	1.8	4.2	25.3	404.0	321.4	3.6
8/31/2006 10:10	8776.1	10.9	1.9	4.3	25.2	404.1	328.2	3.7
9/7/2006 14:57	8784.6	10.7	1.7	4.0	25.5	403.8	335.4	3.4
9/14/2006 14:54	8788.2	10.8	1.7	3.9	25.6	403.7	342.3	3.3
9/21/2006 17:26	8785.5	10.8	1.7	4.0	25.5	403.8	349.5	3.4
9/28/2006 15:35	8793.6	10.8	1.6	3.7	25.8	403.5	356.4	3.1
10/5/2006 15:54	8786.4	10.8	1.7	3.9	25.6	403.8	363.4	3.3
10/12/2006 15:06	8800.9	10.8	1.5	3.4	26.1	403.3	370.4	2.8
10/20/2006 14:30	8788.9	11	1.7	3.9	25.6	403.7	378.3	3.2
10/26/2006 15:23	8736.9	10.8	2.5	5.7	23.8	405.5	384.4	5.1
11/8/2006 13:09	8741.6	10.7	2.4	5.5	24.0	405.3	397.3	4.9
11/15/2006 16:27	8744.4	10.8	2.3	5.4	24.1	405.2	404.4	4.8
12/7/2006 15:26	8704.1	10.8	3.0	6.8	22.7	406.7	426.4	6.2

**Wastebed 13 Pilot Study**

**A-8 (30 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/27/2005

Grout = Approximately 0 to 21.5 ft

Bentonite Seal = Approximately 21.5 to 26.5 ft

Sandpack = 26.5 to 30 ft

Depth to piezometer tip from ground surface = 29.5 ft

Hole Plug (hole overdrilled) = 30 to 45 ft

Ro = 8900.3

To = 15.5 degrees Celsius

Linear Gage Factor (psi) = 0.01521 psi/digit

Thermal Factor = 0.005123 psi/°C

Unit Weight of Water = 62.4 pcf

Ground Surface Elevation = 429.33 ft

Piezometer Tip Elevation = 399.83 ft

Serial # 04-12597

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/14/2006 14:23	8729	10.7	2.6	6.0	23.5	405.8	433.3	5.3
12/21/2006 13:47	8734.8	10.9	2.5	5.8	23.7	405.6	440.3	5.1
12/28/2006 14:06	8717.2	10.8	2.8	6.4	23.1	406.2	447.3	5.8
1/11/2007 15:55	8690	10.7	3.2	7.3	22.2	407.2	461.4	6.7
2/22/2007 11:04	8790.8	10.8	1.6	3.8	25.7	403.6	503.2	3.2
3/7/2007 10:37	8764	10.8	2.0	4.7	24.8	404.6	516.2	4.1
4/12/2007 11:35	8633.1	10.8	4.0	9.3	20.2	409.2	552.2	8.7
5/10/2007 12:00	8658.8	10.8	3.6	8.4	21.1	408.3	580.2	7.8
6/21/2007 13:29	8803.8	10.8	1.4	3.3	26.2	403.2	622.3	2.7
7/12/2007 13:16	8816.6	10.8	1.2	2.9	26.6	402.7	643.3	2.3
8/15/2007 13:27	8827.4	10.8	1.1	2.5	27.0	402.3	677.3	1.9
9/20/2007 14:32	8822.6	10.8	1.2	2.7	26.8	402.5	713.3	2.1
10/25/2007 15:45	8819.1	10.8	1.2	2.8	26.7	402.6	748.4	2.2
11/28/2007 12:34	8764	10.6	2.0	4.7	24.8	404.6	782.3	4.1
12/28/2007 12:55	8709.3	10.7	2.9	6.6	22.9	406.5	812.3	6.0
3/6/2008 12:27	8699.2	10.7	3.0	7.0	22.5	406.8	881.2	6.4
6/13/2008 12:28	8792.8	10.7	1.6	3.7	25.8	403.5	980.2	3.1
9/18/2008 14:05	8805.3	10.8	1.4	3.3	26.2	403.1	1077.3	2.7

**Wastebed 13 Pilot Study**

**A-9 (15 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/5/2005

Grout = 0 to 6.1 ft

Bentonite Seal = 6.1 to 10 ft

Depth to piezometer tip from ground surface = 15 ft

Ro = 8873.3

To = 22 degrees Celsius

Linear Gage Factor (psi) = 0.01546 psi/digit

Thermal Factor = 0.00778 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.42 ft

Piezometer Tip Elevation = 414.42 ft

Serial # 05-13910

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/5/2005 13:39	8981.2	12.2	-1.7	-4.0	>= 15 ft	NA		
10/7/2005 6:30	8933.7	10.4	-1.0	-2.4	>= 15 ft	NA	0	0
10/8/2005 8:45	8935.7	10.4	-1.1	-2.4	>= 15 ft	NA	1.1	-0.1
10/10/2005 8:28	8929.6	10.4	-1.0	-2.2	>= 15 ft	NA	3.1	0.1
10/10/2005 11:37	8929.3	10.4	-1.0	-2.2	>= 15 ft	NA	3.2	0.2
10/10/2005 16:28	8880.9	10.4	-0.2	-0.5	>= 15 ft	NA	3.4	1.9
10/11/2005 7:40	8876.2	10.5	-0.1	-0.3	>= 15 ft	NA	4.0	2.1
10/11/2005 11:32	8869.3	10.4	0.0	-0.1	>= 15 ft	NA	4.2	2.3
10/11/2005 16:58	8869.0	10.4	0.0	-0.1	>= 15 ft	NA	4.4	2.3
10/12/2005 8:24	8867.7	10.4	0.0	0.0	>= 15 ft	NA	5.1	2.4
10/12/2005 14:23	8867.2	10.5	0.0	0.0	15.0	414.4	5.3	2.4
10/12/2005 17:03	8866.4	10.6	0.0	0.0	15.0	414.5	5.4	2.4
10/13/2005 8:38	8866	10.4	0.0	0.1	14.9	414.5	6.1	2.4
10/14/2005 10:01	8865.9	11.6	0.0	0.1	14.9	414.5	7.1	2.4
10/15/2005 7:57	8865.2	10.5	0.0	0.1	14.9	414.5	8.1	2.4
10/15/2005 13:01	8787.7	10.5	1.2	2.8	12.2	417.3	8.3	5.2
10/15/2005 16:45	8777.7	10.4	1.4	3.2	11.8	417.6	8.4	5.6
10/17/2005 8:25	8771.4	10.4	1.5	3.4	11.6	417.8	10.1	5.8
10/17/2005 13:05	8770.6	10.5	1.5	3.5	11.5	417.9	10.3	5.8
10/18/2005 8:02	8775	10.5	1.4	3.3	11.7	417.7	11.1	5.7
10/18/2005 15:21	8748	10.4	1.8	4.3	10.7	418.7	11.4	6.6
10/18/2005 17:25	8734	10.5	2.1	4.8	10.2	419.2	11.5	7.1
10/19/2005 8:24	8727.4	10.4	2.2	5.0	10.0	419.4	12.1	7.4
10/19/2005 13:17	8731.7	10.4	2.1	4.8	10.2	419.3	12.3	7.2
10/19/2005 17:21	8660.2	10.5	3.2	7.4	7.6	421.8	12.5	9.8
10/20/2005 8:00	8671.2	10.4	3.0	7.0	8.0	421.4	13.1	9.4
10/20/2005 14:04	8681.7	10.4	2.9	6.6	8.4	421.0	13.3	9.0
10/21/2005 8:09	8696.4	10.4	2.6	6.1	8.9	420.5	14.1	8.5
10/21/2005 13:16	8700.2	10.4	2.6	6.0	9.0	420.4	14.3	8.3
10/22/2005 8:55	8716.7	10.4	2.3	5.4	9.6	419.8	15.1	7.7
10/24/2005 15:26	8727.0	10.4	2.2	5.0	10.0	419.4	17.4	7.4
10/26/2005 16:24	8719.3	10.5	2.3	5.3	9.7	419.7	19.4	7.7
10/27/2005 15:06	8718.5	10.5	2.3	5.3	9.7	419.7	20.4	7.7
10/28/2005 15:50	8719.7	10.5	2.3	5.3	9.7	419.7	21.4	7.6
10/31/2005 10:48	8734	10.5	2.1	4.8	10.2	419.2	24.2	7.1
11/2/2005 14:53	8741.5	10.5	1.9	4.5	10.5	418.9	26.3	6.9
11/4/2005 11:22	8750.1	10.5	1.8	4.2	10.8	418.6	28.2	6.6
11/7/2005 14:59	8749	10.5	1.8	4.2	10.8	418.6	31.4	6.6
11/11/2005 13:40	8747.9	10.5	1.8	4.3	10.7	418.7	35.3	6.6
11/14/2005 16:33	8741.4	10.6	2.0	4.5	10.5	418.9	38.4	6.9
11/17/2005 15:33	8725.1	10.6	2.2	5.1	9.9	419.5	41.4	7.4
11/21/2005 12:24	8749.1	10.7	1.8	4.2	10.8	418.6	45.2	6.6
12/2/2005 11:52	8744.1	10.7	1.9	4.4	10.6	418.8	56.2	6.8
12/6/2005 14:56	8743.1	10.7	1.9	4.4	10.6	418.9	60.4	6.8
12/15/2005 14:52	8756.8	10.8	1.7	4.0	11.0	418.4	69.3	6.3
12/22/2005 15:29	8769.1	10.8	1.5	3.5	11.5	417.9	76.4	5.9
12/29/2005 11:14	8768.1	10.8	1.5	3.6	11.4	418.0	83.2	5.9
1/5/2006 14:10	8746.7	10.9	1.9	4.3	10.7	418.7	90.3	6.7
1/12/2006 10:42	8725.1	10.9	2.2	5.1	9.9	419.5	97.2	7.5

**Wastedbed 13 Pilot Study**

**A-9 (15 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/5/2005

Grout = 0 to 6.1 ft

Bentonite Seal = 6.1 to 10 ft

Depth to piezometer tip from ground surface = 15 ft

Ro = 8873.3

To = 22 degrees Celsius

Linear Gage Factor (psi) = 0.01546 psi/digit

Thermal Factor = 0.00778 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.42 ft

Piezometer Tip Elevation = 414.42 ft

Serial # 05-13910

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
1/19/2006 13:44	8722.4	11.1	2.2	5.2	9.8	419.6	104.3	7.6
1/26/2006 14:16	8727.1	11.0	2.2	5.0	10.0	419.4	111.3	7.4
2/2/2006 11:29	8731.3	11.0	2.1	4.9	10.1	419.3	118.2	7.2
2/9/2006 12:35	8724.4	11.0	2.2	5.1	9.9	419.5	125.3	7.5
2/16/2006 11:23	8739.1	11.0	2.0	4.6	10.4	419.0	132.2	7.0
2/23/2006 14:23	8756.5	11.1	1.7	4.0	11.0	418.4	139.3	6.3
3/2/2006 11:57	8776.5	11.1	1.4	3.3	11.7	417.7	146.2	5.6
3/9/2006 15:23	8782.8	11.1	1.3	3.0	12.0	417.5	153.4	5.4
3/16/2006 14:14	8738.3	11.1	2.0	4.6	10.4	419.0	160.3	7.0
3/23/2006 15:05	8753.6	11.1	1.8	4.1	10.9	418.5	167.4	6.4
3/31/2006 15:36	8770.1	11.0	1.5	3.5	11.5	417.9	175.4	5.8
4/6/2006 14:00	8773.5	11.0	1.5	3.4	11.6	417.8	181.3	5.7
4/13/2006 16:11	8773.0	11.0	1.5	3.4	11.6	417.8	188.4	5.7
4/20/2006 16:04	8782.5	11.0	1.3	3.0	12.0	417.5	195.4	5.4
4/26/2006 14:43	8766.0	11.0	1.6	3.6	11.4	418.1	201.3	6.0
5/4/2006 14:15	8783.1	10.9	1.3	3.0	12.0	417.4	209.3	5.4
5/11/2006 15:15	8800.2	10.9	1.0	2.4	12.6	416.8	216.4	4.8
5/18/2006 14:54	8808.1	10.9	0.9	2.1	12.9	416.5	223.3	4.5
5/25/2006 14:44	8799.0	10.8	1.1	2.4	12.6	416.9	230.3	4.8
6/1/2006 14:28	8801.3	11.0	1.0	2.4	12.6	416.8	237.3	4.7
6/8/2006 14:43	8799.5	10.7	1.1	2.4	12.6	416.9	244.3	4.8
6/15/2006 13:43	8801.3	10.7	1.0	2.4	12.6	416.8	251.3	4.7
6/22/2006 13:59	8807.5	10.7	0.9	2.1	12.9	416.6	258.3	4.5
6/29/2006 15:29	8798.9	10.6	1.1	2.4	12.6	416.9	265.4	4.8
7/6/2006 15:22	8807.0	10.6	0.9	2.2	12.8	416.6	272.4	4.5
7/13/2006 14:56	8741.7	10.7	1.9	4.5	10.5	418.9	279.4	6.9
7/20/2006 10:40	8768.7	10.5	1.5	3.5	11.5	417.9	286.2	5.9
7/27/2006 10:21	8792.2	10.5	1.2	2.7	12.3	417.1	293.2	5.1
8/3/2006 10:06	8787.0	10.5	1.2	2.9	12.1	417.3	300.1	5.2
8/10/2006 13:51	8796.1	10.5	1.1	2.5	12.5	417.0	307.3	4.9
8/17/2006 15:42	8798.3	10.4	1.1	2.5	12.5	416.9	314.4	4.8
8/24/2006 15:23	8812.1	10.4	0.9	2.0	13.0	416.4	321.4	4.3
8/31/2006 10:12	8806.5	10.4	0.9	2.2	12.8	416.6	328.2	4.5
9/7/2006 14:58	8807.2	10.4	0.9	2.1	12.9	416.6	335.4	4.5
9/14/2006 14:56	8795.6	10.5	1.1	2.6	12.4	417.0	342.4	4.9
9/21/2006 17:27	8811.0	10.4	0.9	2.0	13.0	416.4	349.5	4.4
9/28/2006 15:36	8810.2	10.4	0.9	2.0	13.0	416.5	356.4	4.4
10/5/2006 15:56	8795.3	10.5	1.1	2.6	12.4	417.0	363.4	4.9
10/12/2006 15:09	8820.9	10.5	0.7	1.7	13.3	416.1	370.4	4.0
10/20/2006 14:32	8765.6	10.6	1.6	3.6	11.4	418.1	378.3	6.0
10/26/2006 15:24	8750.8	10.6	1.8	4.2	10.8	418.6	384.4	6.5
11/8/2006 13:10	8774.3	10.6	1.4	3.3	11.7	417.7	397.3	5.7
11/15/2006 16:28	8761.9	10.7	1.6	3.8	11.2	418.2	404.4	6.1
12/7/2006 15:27	8747.5	10.9	1.9	4.3	10.7	418.7	426.4	6.7
12/14/2006 14:25	8766.8	10.9	1.6	3.6	11.4	418.0	433.3	6.0
12/21/2006 13:48	8768.5	11.0	1.5	3.5	11.5	418.0	440.3	5.9
12/28/2006 14:08	8736.5	11.0	2.0	4.7	10.3	419.1	447.3	7.0
1/11/2007 15:57	8725.9	11.1	2.2	5.1	9.9	419.5	461.4	7.4
2/22/2007 11:06	8819.5	11.3	0.7	1.7	13.3	416.1	503.2	4.1

**Wastebed 13 Pilot Study**

**A-9 (15 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/5/2005

Grout = 0 to 6.1 ft

Bentonite Seal = 6.1 to 10 ft

Depth to piezometer tip from ground surface = 15 ft

Ro = 8873.3

To = 22 degrees Celsius

Linear Gage Factor (psi) = 0.01546 psi/digit

Thermal Factor = 0.00778 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.42 ft

Piezometer Tip Elevation = 414.42 ft

Serial # 05-13910

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
3/7/2007 10:39	8765.3	11.4	1.6	3.7	11.3	418.1	516.2	6.0
4/12/2007 11:36	8648.1	11.3	3.4	7.8	7.2	422.3	552.2	10.2
5/10/2007 12:01	8693.2	12.3	2.7	6.3	8.7	420.7	580.2	8.6
6/21/2007 13:30	8795.1	11.0	1.1	2.6	12.4	417.0	622.3	5.0
7/12/2007 13:10	8831.8	11.0	0.6	1.3	13.7	415.7	643.3	3.6
8/15/2007 13:22	8860.8	10.7	0.1	0.2	14.8	414.7	677.3	2.6
9/20/2007 14:24	8887.2	10.6	-0.3	-0.7	>= 15 ft	NA	713.3	1.7
10/25/2007 15:40	8816.9	10.7	0.8	1.8	13.2	416.2	748.4	4.2
11/28/2007 12:26	8754.6	10.9	1.7	4.0	11.0	418.5	782.2	6.4
12/28/2007 12:47	8740.7	11.1	2.0	4.5	10.5	419.0	812.3	6.9
3/6/2008 12:22	8731.7	11.4	2.1	4.9	10.1	419.3	881.2	7.2
6/13/2008 12:17	8821.0	10.8	0.7	1.7	13.3	416.1	980.2	4.0
9/18/2008 13:52	8845.0	10.5	0.3	0.8	14.2	415.2	1077.3	3.2

**Wastedbed 13 Pilot Study**

**A-10 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/26/2005

Grout = 0 to 34.1 ft

Bentonite Seal = 34.1 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 9035

To = 16.6 degrees Celsius

Linear Gage Factor (psi) = 0.01627 psi/digit

Thermal Factor = 0.011946 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.86 ft

Piezometer Tip Elevation = 385.36 ft

Serial # 04-12599

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/26/2005 14:45	8100	16.3	15.2	35.1	9.4	420.5		
9/26/2005 15:10	8258.4	15.7	12.6	29.1	15.4	414.5		
10/7/2005 6:30	8875.6	11.1	2.5	5.8	38.7	391.2	0	0
10/10/2005 8:33	8866.1	11.1	2.7	6.2	38.3	391.5	3.1	0.4
10/10/2005 11:30	8820	11.3	3.4	7.9	36.6	393.3	3.2	2.1
10/10/2005 16:26	8789	11.1	3.9	9.1	35.4	394.4	3.4	3.3
10/11/2005 7:42	8813.9	11.1	3.5	8.1	36.4	393.5	4.0	2.3
10/11/2005 11:30	8807.3	11.1	3.6	8.4	36.1	393.8	4.2	2.6
10/11/2005 16:52	8802.9	11.2	3.7	8.6	35.9	393.9	4.4	2.7
10/12/2005 8:12	8803.0	11.2	3.7	8.6	35.9	393.9	5.1	2.7
10/12/2005 14:25	8792.1	11.2	3.9	9.0	35.5	394.3	5.3	3.1
10/12/2005 17:05	8775.1	11.1	4.2	9.6	34.9	395.0	5.4	3.8
10/13/2005 8:05	8775.1	11.2	4.2	9.6	34.9	395.0	6.1	3.8
10/14/2005 10:45	8774.0	11.8	4.2	9.7	34.8	395.0	7.2	3.8
10/15/2005 8:00	8789	11.3	3.9	9.1	35.4	394.5	8.1	3.3
10/15/2005 13:03	8743.7	11.2	4.7	10.8	33.7	396.1	8.3	5.0
10/15/2005 16:45	8719.5	11.1	5.1	11.7	32.8	397.1	8.4	5.9
10/17/2005 8:21	8727.2	11.1	4.9	11.4	33.1	396.8	10.1	5.6
10/17/2005 13:07	8722.2	11.8	5.0	11.6	32.9	397.0	10.3	5.8
10/18/2005 8:03	8724.2	11.1	5.0	11.5	33.0	396.9	11.1	5.7
10/18/2005 15:20	8653.1	11.1	6.1	14.2	30.3	399.5	11.4	8.4
10/18/2005 17:24	8641.1	11.1	6.3	14.6	29.9	400.0	11.5	8.8
10/19/2005 8:21	8639	11.1	6.4	14.7	29.8	400.1	12.1	8.9
10/19/2005 13:15	8636	11.1	6.4	14.8	29.7	400.2	12.3	9.0
10/19/2005 17:11	8566.3	11.1	7.6	17.4	27.1	402.8	12.4	11.6
10/20/2005 7:55	8558	11.1	7.7	17.8	26.7	403.1	13.1	11.9
10/20/2005 14:12	8562.2	11.1	7.6	17.6	26.9	403.0	13.3	11.8
10/21/2005 8:13	8567.3	11.1	7.5	17.4	27.1	402.8	14.1	11.6
10/21/2005 13:18	8569.9	11.1	7.5	17.3	27.2	402.7	14.3	11.5
10/22/2005 8:53	8580.6	11.1	7.3	16.9	27.6	402.3	15.1	11.1
10/24/2005 15:24	8593.8	11.1	7.1	16.4	28.1	401.8	17.4	10.6
10/26/2005 16:22	8608.0	11.1	6.9	15.9	28.6	401.2	19.4	10.0
10/27/2005 15:03	8604.7	11.1	6.9	16.0	28.5	401.4	20.4	10.2
10/28/2005 15:48	8605.5	11.2	6.9	16.0	28.5	401.3	21.4	10.1
10/31/2005 10:46	8623.6	11.1	6.6	15.3	29.2	400.7	24.2	9.5
11/2/2005 14:52	8632.2	11.2	6.5	15.0	29.5	400.3	26.3	9.1
11/4/2005 11:20	8646.8	11.1	6.3	14.4	30.1	399.8	28.2	8.6
11/7/2005 14:58	8650.6	11.1	6.2	14.3	30.2	399.6	31.4	8.4
11/11/2005 13:41	8664	11.1	6.0	13.8	30.7	399.1	35.3	7.9
11/14/2005 16:34	8662.2	11.1	6.0	13.8	30.7	399.2	38.4	8.0
11/17/2005 15:34	8670.1	11.2	5.9	13.6	30.9	398.9	41.4	7.7
11/21/2005 12:27	8682.9	11.1	5.7	13.1	31.4	398.4	45.2	7.2
12/2/2005 11:50	8696.5	11.1	5.4	12.6	31.9	397.9	56.2	6.7
12/6/2005 14:58	8679.3	11.1	5.7	13.2	31.3	398.6	60.4	7.4
12/15/2005 14:54	8693.1	11.1	5.5	12.7	31.8	398.0	69.3	6.9
12/22/2005 15:31	8707.2	11.1	5.3	12.2	32.3	397.5	76.4	6.3
12/29/2005 11:15	8729.9	11.1	4.9	11.3	33.2	396.7	83.2	5.5

**Wastedbed 13 Pilot Study**

**A-10 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/26/2005

Grout = 0 to 34.1 ft

Bentonite Seal = 34.1 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 9035

To = 16.6 degrees Celsius

Linear Gage Factor (psi) = 0.01627 psi/digit

Thermal Factor = 0.011946 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.86 ft

Piezometer Tip Elevation = 385.36 ft

Serial # 04-12599

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
1/5/2006 14:12	8722.5	11.1	5.0	11.6	32.9	396.9	90.3	5.7
1/12/2006 10:43	8695.2	11.1	5.5	12.6	31.9	398.0	97.2	6.8
1/19/2006 13:47	8666.8	11.1	5.9	13.7	30.8	399.0	104.3	7.8
1/26/2006 14:18	8654.4	11.1	6.1	14.1	30.4	399.5	111.3	8.3
2/2/2006 11:30	8672.6	11.0	5.8	13.5	31.0	398.8	118.2	7.6
2/9/2006 12:37	8664.4	11.1	6.0	13.8	30.7	399.1	125.3	7.9
2/16/2006 11:25	8669.8	11.0	5.9	13.6	30.9	398.9	132.2	7.7
2/23/2006 14:25	8690.0	11.0	5.5	12.8	31.7	398.2	139.3	7.0
3/2/2006 11:59	8712.8	11.1	5.2	11.9	32.6	397.3	146.2	6.1
3/9/2006 15:25	8734.6	11.0	4.8	11.1	33.4	396.5	153.4	5.3
3/16/2006 14:16	8717.0	11.0	5.1	11.8	32.7	397.1	160.3	6.0
3/23/2006 15:07	8705.8	11.0	5.3	12.2	32.3	397.6	167.4	6.4
3/31/2006 15:37	8726.0	11.0	5.0	11.4	33.1	396.8	175.4	5.6
4/6/2006 14:02	8732.9	11.0	4.8	11.2	33.3	396.5	181.3	5.4
4/13/2006 16:13	8737.6	11.1	4.8	11.0	33.5	396.4	188.4	5.2
4/20/2006 16:06	8746.7	11.0	4.6	10.7	33.8	396.0	195.4	4.8
4/26/2006 14:44	8749.0	11.0	4.6	10.6	33.9	395.9	201.3	4.8
5/4/2006 14:16	8751.3	11.0	4.5	10.5	34.0	395.9	209.3	4.7
5/11/2006 15:16	8768.2	11.0	4.3	9.9	34.6	395.2	216.4	4.0
5/18/2006 14:56	8784.8	11.0	4.0	9.2	35.3	394.6	223.4	3.4
5/25/2006 14:46	8779.7	11.0	4.1	9.4	35.1	394.8	230.3	3.6
6/1/2006 14:29	8778.0	11.0	4.1	9.5	35.0	394.9	237.3	3.7
6/8/2006 14:44	8784.8	11.0	4.0	9.2	35.3	394.6	244.3	3.4
6/15/2006 13:44	8783.0	11.0	4.0	9.3	35.2	394.7	251.3	3.5
6/22/2006 14:00	8790.0	11.0	3.9	9.0	35.5	394.4	258.3	3.2
6/29/2006 15:30	8795.9	11.0	3.8	8.8	35.7	394.2	265.4	3.0
7/6/2006 15:23	8796.3	11.0	3.8	8.8	35.7	394.2	272.4	3.0
7/13/2006 14:57	8796.1	11.0	3.8	8.8	35.7	394.2	279.4	3.0
7/20/2006 10:41	8767.9	11.0	4.3	9.9	34.6	395.2	286.2	4.0
7/27/2006 10:23	8776.9	11.0	4.1	9.5	35.0	394.9	293.2	3.7
8/3/2006 10:08	8788.4	11.0	3.9	9.1	35.4	394.5	300.2	3.3
8/10/2006 13:52	8795.8	11.0	3.8	8.8	35.7	394.2	307.3	3.0
8/17/2006 15:43	8796.1	11.0	3.8	8.8	35.7	394.2	314.4	3.0
8/24/2006 15:25	8810.7	11.0	3.6	8.3	36.2	393.6	321.4	2.4
8/31/2006 10:13	8807.7	11.0	3.6	8.4	36.1	393.7	328.2	2.5
9/7/2006 15:00	8817.7	11.0	3.5	8.0	36.5	393.4	335.4	2.2
9/14/2006 14:59	8823.1	11.0	3.4	7.8	36.7	393.2	342.4	2.0
9/21/2006 17:28	8824.9	11.0	3.4	7.7	36.8	393.1	349.5	1.9
9/28/2006 15:38	8836.4	11.0	3.2	7.3	37.2	392.7	356.4	1.5
10/5/2006 15:57	8833.5	11.0	3.2	7.4	37.1	392.8	363.4	1.6
10/12/2006 15:11	8849.3	11.0	3.0	6.8	37.7	392.2	370.4	1.0
10/20/2006 14:33	8841.7	11.1	3.1	7.1	37.4	392.5	378.3	1.3
10/26/2006 15:26	8783.3	11.1	4.0	9.3	35.2	394.7	384.4	3.5
11/8/2006 13:12	8775.6	11.0	4.2	9.6	34.9	394.9	397.3	3.8
11/15/2006 16:29	8774.5	11.0	4.2	9.6	34.9	395.0	404.4	3.8
12/7/2006 15:28	8741.9	11.0	4.7	10.9	33.6	396.2	426.4	5.0
12/14/2006 14:26	8756.3	10.9	4.5	10.3	34.2	395.7	433.3	4.5

**Wastebed 13 Pilot Study**

**A-10 (45 ft)**

Typical Vibrating Wire Piezometer

Date Installed: 9/26/2005

Grout = 0 to 34.1 ft

Bentonite Seal = 34.1 to 41.5 ft

Sandpack = 41.5 to 45 ft

Depth to piezometer tip from ground surface = 44.5 ft

Ro = 9035

To = 16.6 degrees Celsius

Linear Gage Factor (psi) = 0.01627 psi/digit

Thermal Factor = 0.011946 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 429.86 ft

Piezometer Tip Elevation = 385.36 ft

Serial # 04-12599

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
12/21/2006 13:49	8758.5	10.9	4.4	10.2	34.3	395.6	440.3	4.4
12/28/2006 14:09	8753.9	11.0	4.5	10.4	34.1	395.8	447.3	4.6
1/11/2007 15:58	8731.8	11.0	4.9	11.2	33.3	396.6	461.4	5.4
2/22/2007 11:08	8828.3	11.0	3.3	7.6	36.9	393.0	503.2	1.8
3/7/2007 10:41	8813.7	10.9	3.5	8.2	36.3	393.5	516.2	2.3
4/12/2007 11:37	8667.9	10.9	5.9	13.6	30.9	399.0	552.2	7.8
5/10/2007 12:03	8678.6	10.9	5.7	13.2	31.3	398.6	580.2	7.4
6/21/2007 13:31	8846.3	11.1	3.0	6.9	37.6	392.3	622.3	1.1
7/12/2007 13:09	8869.4	10.9	2.6	6.1	38.4	391.4	643.3	0.2
8/15/2007 13:21	8888.8	10.9	2.3	5.3	39.2	390.7	677.3	-0.5
9/20/2007 14:22	8892.3	10.9	2.3	5.2	39.3	390.6	713.3	-0.6
10/25/2007 15:39	8894.5	10.8	2.2	5.1	39.4	390.5	748.4	-0.7
11/28/2007 12:25	8839.4	10.8	3.1	7.2	37.3	392.5	782.2	1.4
12/28/2007 12:45	8744.9	10.8	4.7	10.7	33.8	396.1	812.3	4.9
3/6/2008 12:20	8710.3	10.8	5.2	12.0	32.5	397.4	881.2	6.2
6/13/2008 12:15	8844.3	10.7	3.0	7.0	37.5	392.4	980.2	1.2
9/18/2008 13:50	8880.3	10.8	2.4	5.6	38.9	391.0	1077.3	-0.2

**Wastedbed 13 Pilot Study**

**A-11 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/6/2005

Grout = 0 to 17.5 ft

Bentonite Seal = 17.5 to 26 ft

Depth to piezometer tip from ground surface = 30 ft

Ro = 8826.6

To = 20 degrees Celsius

Linear Gage Factor (psi) = 0.0148 psi/digit

Thermal Factor = 0.00437 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.58 ft

Piezometer Tip Elevation = 400.58 ft

Serial # 05-13911

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
10/6/2005 16:00	9673.6	12.2	-12.6	-29.0				
10/7/2005 6:30	8755.2	11.3	1.0	2.4	27.6	402.9	0	0
10/8/2005 8:58	8753.2	11.3	1.0	2.4	27.6	403.0	1.1	0.1
10/10/2005 7:59	8741.1	11.3	1.2	2.8	27.2	403.4	3.1	0.5
10/10/2005 11:55	8736.8	11.3	1.3	3.0	27.0	403.6	3.2	0.6
10/10/2005 16:56	8732.1	11.3	1.4	3.1	26.9	403.7	3.4	0.8
10/11/2005 8:07	8726.4	11.3	1.4	3.3	26.7	403.9	4.1	1.0
10/11/2005 11:43	8719.3	11.3	1.6	3.6	26.4	404.2	4.2	1.2
10/11/2005 16:31	8712.3	11.4	1.7	3.8	26.2	404.4	4.4	1.5
10/12/2005 7:53	8708.7	11.3	1.7	3.9	26.1	404.5	5.1	1.6
10/12/2005 14:10	8684.8	11.4	2.1	4.8	25.2	405.3	5.3	2.4
10/12/2005 17:18	8685.1	11.3	2.1	4.7	25.3	405.3	5.4	2.4
10/13/2005 8:59	8684.3	11.3	2.1	4.8	25.2	405.4	6.1	2.4
10/14/2005 10:23	8651.1	12.5	2.6	5.9	24.1	406.5	7.2	3.6
10/15/2005 7:47	8635.3	11.3	2.8	6.4	23.6	407.0	8.1	4.1
10/15/2005 12:56	8631.7	11.4	2.8	6.6	23.4	407.1	8.3	4.2
10/15/2005 16:50	8622.9	11.3	3.0	6.9	23.1	407.4	8.4	4.5
10/17/2005 8:10	8606.1	11.3	3.2	7.4	22.6	408.0	10.1	5.1
10/17/2005 13:09	8569.7	11.3	3.8	8.7	21.3	409.3	10.3	6.3
10/18/2005 7:56	8580.8	11.4	3.6	8.3	21.7	408.9	11.1	6.0
10/18/2005 15:27	8572	11.3	3.7	8.6	21.4	409.2	11.4	6.3
10/18/2005 17:30	8534.8	11.3	4.3	9.9	20.1	410.5	11.5	7.5
10/19/2005 7:44	8534.3	11.3	4.3	9.9	20.1	410.5	12.1	7.5
10/19/2005 13:34	8507.8	11.3	4.7	10.8	19.2	411.4	12.3	8.4
10/19/2005 17:23	8501.9	11.3	4.8	11.0	19.0	411.6	12.5	8.7
10/20/2005 8:11	8496.3	11.3	4.9	11.2	18.8	411.8	13.1	8.8
10/20/2005 13:48	8498.9	11.3	4.8	11.1	18.9	411.7	13.3	8.8
10/21/2005 8:01	8504.2	11.3	4.7	10.9	19.1	411.5	14.1	8.6
10/21/2005 13:05	8507.7	11.3	4.7	10.8	19.2	411.4	14.3	8.5
10/22/2005 9:03	8520.5	11.3	4.5	10.4	19.6	410.9	15.1	8.0
10/24/2005 15:31	8518.7	11.4	4.5	10.4	19.6	411.0	17.4	8.1
10/26/2005 16:41	8477	11.3	5.1	11.9	18.1	412.4	19.4	9.5
10/27/2005 15:15	8472.4	11.3	5.2	12.0	18.0	412.6	20.4	9.7
10/28/2005 15:54	8479.3	11.3	5.1	11.8	18.2	412.4	21.4	9.4
10/31/2005 10:54	8509	11.3	4.7	10.8	19.2	411.3	24.2	8.4
11/2/2005 14:58	8521.4	11.4	4.5	10.3	19.7	410.9	26.4	8.0
11/4/2005 11:40	8537.1	11.3	4.2	9.8	20.2	410.4	28.2	7.4
11/7/2005 15:14	8544.5	11.3	4.1	9.5	20.5	410.1	31.4	7.2
11/11/2005 13:43	8550.4	11.3	4.0	9.3	20.7	409.9	35.3	7.0
11/14/2005 16:40	8536.7	11.3	4.3	9.8	20.2	410.4	38.4	7.5
11/17/2005 15:27	8497.5	11.3	4.8	11.2	18.8	411.7	41.4	8.8
11/21/2005 12:19	8510.1	11.2	4.6	10.7	19.3	411.3	45.2	8.4
12/2/2005 12:03	8481.1	11.3	5.1	11.7	18.3	412.3	56.2	9.4
12/6/2005 14:49	8479.5	11.3	5.1	11.8	18.2	412.3	60.3	9.4
12/15/2005 14:38	8519.4	11.3	4.5	10.4	19.6	411.0	69.3	8.1
12/22/2005 15:18	8550.2	11.2	4.1	9.4	20.6	409.9	76.4	7.0
12/29/2005 11:02	8553.1	11.2	4.0	9.3	20.7	409.8	83.2	6.9
1/5/2006 14:01	8520.1	11.2	4.5	10.4	19.6	411.0	90.3	8.0

**Wastebed 13 Pilot Study**

**A-11 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/6/2005

Grout = 0 to 17.5 ft

Bentonite Seal = 17.5 to 26 ft

Depth to piezometer tip from ground surface = 30 ft

Ro = 8826.6

To = 20 degrees Celsius

Linear Gage Factor (psi) = 0.0148 psi/digit

Thermal Factor = 0.00437 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.58 ft

Piezometer Tip Elevation = 400.58 ft

Serial # 05-13911

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
1/12/2006 10:33	8461.3	11.2	5.4	12.4	17.6	413.0	97.2	10.0
1/19/2006 13:35	8428.9	11.2	5.8	13.5	16.5	414.1	104.3	11.1
1/26/2006 14:07	8431.4	11.2	5.8	13.4	16.6	414.0	111.3	11.1
2/2/2006 11:21	8439.4	11.2	5.7	13.1	16.9	413.7	118.2	10.8
2/9/2006 12:23	8427.5	11.2	5.9	13.5	16.5	414.1	125.2	11.2
2/16/2006 11:14	8456.7	11.2	5.4	12.5	17.5	413.1	132.2	10.2
2/23/2006 14:13	8481.3	11.2	5.1	11.7	18.3	412.3	139.3	9.4
3/2/2006 11:48	8522.3	11.2	4.5	10.3	19.7	410.9	146.2	8.0
3/9/2006 15:14	8559	11.2	3.9	9.1	20.9	409.6	153.4	6.7
3/16/2006 14:06	8484.9	11.2	5.0	11.6	18.4	412.2	160.3	9.2
3/23/2006 14:57	8494.5	11.2	4.9	11.3	18.7	411.8	167.4	8.9
3/31/2006 15:27	8526.6	11.2	4.4	10.2	19.8	410.7	175.4	7.8
4/6/2006 13:51	8540.8	11.2	4.2	9.7	20.3	410.3	181.3	7.3
4/13/2006 16:02	8542.2	11.2	4.2	9.6	20.4	410.2	188.4	7.3
4/20/2006 15:54	8565.5	10.9	3.8	8.8	21.2	409.4	195.4	6.5
4/26/2006 14:33	8547.8	11.2	4.1	9.4	20.6	410.0	201.3	7.1
5/4/2006 14:07	8562.3	11.2	3.9	8.9	21.1	409.5	209.3	6.6
5/11/2006 15:06	8597.1	11.2	3.4	7.7	22.3	408.3	216.4	5.4
5/18/2006 14:46	8621.7	11.3	3.0	6.9	23.1	407.5	223.3	4.6
5/25/2006 14:34	8622.5	11.3	3.0	6.9	23.1	407.5	230.3	4.5
6/1/2006 14:21	8624.6	11.2	3.0	6.8	23.2	407.4	237.3	4.5
6/8/2006 14:35	8632.1	11.3	2.8	6.6	23.4	407.1	244.3	4.2
6/15/2006 13:35	8632.4	11.2	2.8	6.5	23.5	407.1	251.3	4.2
6/22/2006 13:51	8647.1	11.2	2.6	6.0	24.0	406.6	258.3	3.7
6/29/2006 15:19	8667.4	11.2	2.3	5.3	24.7	405.9	265.4	3.0
7/6/2006 15:12	8679.1	11.2	2.1	4.9	25.1	405.5	272.4	2.6
7/13/2006 14:49	8621.3	11.2	3.0	6.9	23.1	407.5	279.3	4.6
7/20/2006 10:32	8581.8	11.2	3.6	8.3	21.7	408.9	286.2	5.9
7/27/2006 10:12	8609.6	11.2	3.2	7.3	22.7	407.9	293.2	5.0
8/3/2006 9:55	8625.6	11.2	2.9	6.8	23.2	407.4	300.1	4.4
8/10/2006 13:43	8638.9	11.2	2.7	6.3	23.7	406.9	307.3	4.0
8/17/2006 15:34	8653.9	11.2	2.5	5.8	24.2	406.4	314.4	3.5
8/24/2006 15:15	8679	11.2	2.1	5.0	25.0	405.5	321.4	2.6
8/31/2006 10:03	8687.3	11.1	2.0	4.7	25.3	405.2	328.1	2.3
9/7/2006 14:47	8704.2	11.1	1.8	4.1	25.9	404.7	335.3	1.7
9/14/2006 14:48	8712.6	11.1	1.6	3.8	26.2	404.4	342.3	1.5
9/21/2006 17:19	8717.6	11.1	1.6	3.6	26.4	404.2	349.5	1.3
9/28/2006 15:30	8728.3	11.2	1.4	3.3	26.7	403.8	356.4	0.9
10/5/2006 15:47	8669.7	11.2	2.3	5.3	24.7	405.8	363.4	2.9
10/12/2006 14:56	8664.6	11.1	2.4	5.4	24.6	406.0	370.4	3.1
10/20/2006 14:23	8628.9	11.1	2.9	6.7	23.3	407.2	378.3	4.3
10/26/2006 15:15	8547.9	11.1	4.1	9.4	20.6	410.0	384.4	7.1
11/8/2006 13:03	8523.9	11.1	4.4	10.2	19.8	410.8	397.3	7.9
11/15/2006 16:21	8542.1	11.2	4.2	9.6	20.4	410.2	404.4	7.3
12/7/2006 15:20	8471.6	11.1	5.2	12.0	18.0	412.6	426.4	9.7
12/14/2006 14:18	8510	11.1	4.6	10.7	19.3	411.3	433.3	8.4
12/21/2006 13:41	8528.6	11.1	4.4	10.1	19.9	410.7	440.3	7.7
12/28/2006 13:56	8486.4	11.1	5.0	11.5	18.5	412.1	447.3	9.2

**Wastebed 13 Pilot Study**

**A-11 (30 ft)**

Push-In Vibrating Wire Piezometer

Date Installed: 10/6/2005

Grout = 0 to 17.5 ft

Bentonite Seal = 17.5 to 26 ft

Depth to piezometer tip from ground surface = 30 ft

Ro = 8826.6

To = 20 degrees Celsius

Linear Gage Factor (psi) = 0.0148 psi/digit

Thermal Factor = 0.00437 psi/°C

Unit Weight of Water = 62.4 pcf

Initial Ground Surface Elevation = 430.58 ft

Piezometer Tip Elevation = 400.58 ft

Serial # 05-13911

Date and Time	R	T (°C)	Pressure (psi)	ft- water	Piezometric Level as Depth Below Original Ground Surface (ft)	Piezometric Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
1/11/2007 15:46	8445.6	11.1	5.6	12.9	17.1	413.5	461.4	10.6
2/22/2007 10:53	8636.2	11.2	2.8	6.4	23.6	407.0	503.2	4.1
3/7/2007 10:27	8605.7	11.2	3.2	7.5	22.5	408.0	516.2	5.1
4/12/2007 11:29	8378.9	11.1	6.6	15.2	14.8	415.8	552.2	12.9
5/10/2007 11:54	8410.7	11.1	6.1	14.1	15.9	414.7	580.2	11.8
6/21/2007 13:23	8688.6	11.1	2.0	4.6	25.4	405.2	622.3	2.3
7/12/2007 13:22	8733.4	11.1	1.3	3.1	26.9	403.7	643.3	0.7
8/15/2007 13:33	8752.8	11.1	1.1	2.4	27.6	403.0	677.3	0.1
9/20/2007 14:39	8753.5	11.1	1.0	2.4	27.6	403.0	713.3	0.1
10/25/2007 15:24	8755.4	11	1.0	2.3	27.7	402.9	748.4	0.0
11/28/2007 12:42	8585.5	11	3.5	8.1	21.9	408.7	782.3	5.8
12/28/2007 13:05	8480.1	11	5.1	11.7	18.3	412.3	812.3	9.4
3/6/2008 12:35	8450.2	11	5.5	12.8	17.2	413.3	881.3	10.4
6/13/2008 12:35	8673.1	11	2.2	5.2	24.8	405.7	980.3	2.8
9/18/2008 14:10	8732.5	11	1.4	3.1	26.9	403.7	1077.3	0.8

**Wastebed 13 Pilot Study**

**A-12 (45 ft)**

Standpipe Piezometer  
Date Installed: 9/15/2005

Grout =	0 to 37 ft
Bentonite Seal =	37 to 39 ft
Sandpack Set Depth =	39 to 44 ft
Screened Interval =	41.2 to 44.2 ft
Piezometer Set Depth =	44.2 ft
Initial Casing Stickup =	2.5 ft
Intermediate Casing Stickup =	9.58 ft
Final Casing Stickup =	9.58 ft
Initial Top of Casing Elevation =	433.14 ft
Intermediate Top of Casing Elevation =	NA ft
Final Top of Casing Elevation =	440.22 ft
Initial Ground Surface Elevation =	430.64 ft
Standpipe Tip Elevation =	386.44 ft

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
9/19/2005 13:45	41	38.5			
10/8/2005 9:42	43.11	40.61	390.0	1	0
10/10/2005 17:10	48.81	39.23	391.4	3.3	1.4
10/11/2005 7:25	48.98	39.40	391.2	3.9	1.2
10/11/2005 16:50	49.01	39.43	391.2	4.3	1.2
10/12/2005 9:00	48.9	39.32	391.3	5.0	1.3
10/12/2005 17:32	48.61	39.03	391.6	5.3	1.6
10/13/2005 12:49	48.01	38.43	392.2	6.1	2.2
10/14/2005 11:03	48.0	38.43	392.2	7.1	2.2
10/15/2005 8:20	48.19	38.61	392.0	7.9	2.0
10/15/2005 17:25	46.66	37.08	393.6	8.3	3.5
10/17/2005 8:40	46.5	36.92	393.7	10.0	3.7
10/17/2005 13:20	46.4	36.82	393.8	10.2	3.8
10/18/2005 8:05	45.93	36.35	394.3	10.9	4.3
10/18/2005 15:45	44.65	35.07	395.6	11.3	5.5
10/18/2005 17:22	44.47	34.89	395.8	11.3	5.7
10/19/2005 8:19	44.02	34.44	396.2	11.9	6.2
10/20/2005 13:43	40.31	30.73	399.9	13.2	9.9
10/20/2005 15:45	40.61	31.03	399.6	13.3	9.6
10/21/2005 8:22	39.54	29.96	400.7	13.9	10.7
10/21/2005 13:25	36.31	26.73	403.9	14.2	13.9
10/22/2005 8:50	26.75	17.17	413.5	15.0	23.4
10/24/2005 15:22	dry at 30.61				
10/26/2005 16:20	dry at 30.6				
10/27/2005 14:58	dry at 30.6				
10/28/2005 15:42	dry at 31.53				
10/31/2005 10:45	dry at 30.54				
11/2/2005 14:51	dry at 30.5				
11/4/2005 11:17	dry at 30.48				
11/7/2005 14:55	dry at 30.51				
11/11/2005 13:30	dry at 30.5				
11/14/2005 16:30	dry at 30.46				
11/17/2005 15:00	dry at 30.6				
11/21/2005 12:06	dry at 30.4				
12/2/2005 11:28	dry at 30.4				
12/6/2005 14:32	dry at 29.89				
12/15/2005 14:07	dry at 29.92				
12/22/2005 14:51	dry at 29.87				
12/29/2005 10:36	dry at 29.87				
1/5/2006 13:38	dry at 29.87				
1/12/2006 10:17	dry at 29.87				
1/19/2006 13:15	dry at 29.87				
1/26/2006 13:34	dry at 29.86				
2/2/2006 11:05	dry at 29.85				

**Wastebed 13 Pilot Study**

**A-12 (45 ft)**

Standpipe Piezometer

Date Installed: 9/15/2005

Grout =

0 to 37 ft

Bentonite Seal =

37 to 39 ft

Sandpack Set Depth =

39 to 44 ft

Screened Interval =

41.2 to 44.2 ft

Piezometer Set Depth =

44.2 ft

Initial Casing Stickup =

2.5 ft

Intermediate Casing Stickup =

9.58 ft

Final Casing Stickup =

9.58 ft

Initial Top of Casing Elevation =

433.14 ft

Intermediate Top of Casing Elevation =

NA ft

Final Top of Casing Elevation =

440.22 ft

Initial Ground Surface Elevation =

430.64 ft

Standpipe Tip Elevation =

386.44 ft

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
2/9/2006 12:05	dry at 29.85				
2/16/2006 10:50	dry at 29.86				
2/23/2006 13:49	dry at 29.84				
3/2/2006 11:28	dry at 29.85				
3/9/2006 14:53	dry at 29.84				
3/16/2006 13:42	dry at 29.84				
3/23/2006 14:32	dry at 29.83				
3/31/2006 15:07	dry at 29.82				
4/6/2006 13:27	dry at 29.82				
4/13/2006 15:45	dry at 29.83				
4/20/2006 15:31	dry at 29.82				
4/26/2006 14:14	dry at 29.84				
5/4/2006 13:49	dry at 29.82				
5/11/2006 14:45	dry at 29.82				
5/18/2006 14:54	dry at 29.85				
5/25/2006 14:15	dry at 29.85				
6/1/2006 14:06	dry at 29.84				
6/8/2006 14:11	dry at 29.84				
6/15/2006 13:20	dry at 29.81				
6/22/2006 13:50	dry at 29.81				
6/29/2006 14:45	dry at 29.85				
7/6/2006 14:18	dry at 29.82				
7/13/2006 14:30	dry at 29.85				
7/20/2006 10:07	dry at 29.81				
7/27/2006 9:51	dry at 29.81				
8/3/2006 9:34	dry at 29.80				
8/10/2006 13:29	dry at 29.82				
8/17/2006 15:22	dry at 29.83				
8/24/2006 14:55	dry at 29.82				
8/31/2006 9:40	dry at 29.80				
9/7/2006 14:20	dry at 29.82				
9/14/2006 14:20	dry at 29.84				
9/21/2006 17:02	dry at 29.82				
9/28/2006 14:40	dry at 29.83				
10/5/2006 15:25	dry at 29.82				
10/12/2006 14:25	dry at 29.81				
10/20/2006 15:02	dry at 29.84				
10/26/2006 14:40	dry at 29.81				
11/8/2006 12:42	dry at 29.84				
11/15/2006 15:53	dry at 29.81				
12/7/2006 14:44	dry at 29.82				
12/14/2006 13:55	dry at 29.82				
12/21/2006 13:15	dry at 29.83				
12/28/2006 13:30	dry at 29.83				
1/11/2007 15:09	dry at 29.82				

**Wastebed 13 Pilot Study**

**A-12 (45 ft)**

Standpipe Piezometer

Date Installed: 9/15/2005

Grout =

0 to 37 ft

Bentonite Seal =

37 to 39 ft

Sandpack Set Depth =

39 to 44 ft

Screened Interval =

41.2 to 44.2 ft

Piezometer Set Depth =

44.2 ft

Initial Casing Stickup =

2.5 ft

Intermediate Casing Stickup =

9.58 ft

Final Casing Stickup =

9.58 ft

Initial Top of Casing Elevation =

433.14 ft

Intermediate Top of Casing Elevation =

NA ft

Final Top of Casing Elevation =

440.22 ft

Initial Ground Surface Elevation =

430.64 ft

Standpipe Tip Elevation =

386.44 ft

Date and Time	Depth from Top of Casing (ft)	Depth Below Ground Surface (ft)	Water Elevation (ft)	Time Elapsed (days)	Change in Piezometric Level (ft)
2/22/2007 10:40	dry at 29.80				
3/7/2007 10:15	dry at 29.83				
4/12/2007 11:10	dry at 29.82				
5/10/2007 11:34	dry at 29.82				
6/21/2007 13:00	dry at 29.80				
7/12/2007 13:00	dry at 29.81				
8/15/2007 13:07	dry at 29.81				
9/20/2007 14:06	dry at 29.81				
10/25/2007 15:02	dry at 29.81				
11/28/2007 12:12	dry at 29.81				
12/28/2007 12:30	dry at 29.81				
3/6/2008 12:10	dry at 29.81				
6/13/2008 12:00	dry at 29.80				
9/18/2008 13:35	dry at 29.80				

**Wastedbed 13 Pilot Study**

Piezometer	Date and Time	Depth from Top of Casing (ft)
PZ-01I	10/15/2005 8:30	33.14
PZ-01I	10/17/2005 13:58	33.05
PZ-01I	10/18/2005 15:45	33.00
PZ-01I	10/19/2005 8:10	32.95
PZ-01I	10/20/2005 16:00	32.84
PZ-01I	10/21/2005 8:32	32.79
PZ-01I	10/24/2005 15:48	32.42
PZ-01I	10/31/2005 13:48	29.41
PZ-01I	11/2/2005 14:14	29.25
PZ-01I	11/4/2005 11:52	29.25
PZ-01I	11/7/2005 15:25	29.36
PZ-01I	11/11/2005 13:27	29.47
PZ-01I	11/14/2005 16:23	29.15
PZ-01I	11/17/2005 15:05	28.46
PZ-01I	11/21/2005 12:01	27.4
PZ-01I	12/2/2005 11:20	25.95
PZ-01I	12/6/2005 14:24	25.88
PZ-01I	12/15/2005 13:57	27.92
PZ-01I	12/21/2005 15:56	28.81
PZ-01I	12/29/2005 10:31	28.82
PZ-01I	1/5/2006 13:30	27.56
PZ-01I	1/12/2006 10:13	25.37
PZ-01I	1/19/2006 13:09	22.9
PZ-01I	1/26/2006 13:39	23.41
PZ-01I	2/2/2006 10:59	23.58
PZ-01I	2/23/2006 13:46	25.54
PZ-01I	3/2/2006 11:22	27.14
PZ-01I	3/9/2006 14:46	28.65
PZ-01I	3/16/2006 13:35	25.71
PZ-01I	3/23/2006 14:28	26.26
PZ-01I	3/31/2006 15:01	27.87
PZ-01I	4/6/2006 13:26	28.36
PZ-01I	4/13/2006 15:41	28.28
PZ-01I	4/20/2006 15:25	28.85
PZ-01I	4/26/2006 14:06	28.07
PZ-01I	5/4/2006 13:45	28.43
PZ-01I	5/11/2006 14:35	29.32
PZ-01I	5/18/2006 13:50	29.67
PZ-01I	5/25/2006 14:08	31.03
PZ-01I	6/1/2006 14:01	30.22

Piezometer	Date and Time	Depth from Top of Casing (ft)
PZ-01D	10/15/2005 8:30	49.36
PZ-01D	10/17/2005 13:55	49.35
PZ-01D	10/18/2005 15:45	49.35
PZ-01D	10/19/2005 8:10	49.39
PZ-01D	10/20/2005 16:00	49.36
PZ-01D	10/21/2005 8:30	49.26
PZ-01D	10/24/2005 15:45	49.16
PZ-01D	10/31/2005 13:45	48
PZ-01D	11/2/2005 14:11	47.55
PZ-01D	11/4/2005 11:50	47.2
PZ-01D	11/7/2005 15:20	47.01
PZ-01D	11/11/2005 13:25	46.94
PZ-01D	11/14/2005 16:22	46.9
PZ-01D	11/17/2005 15:05	46.66
PZ-01D	11/21/2005 12:00	46.05
PZ-01D	12/2/2005 11:19	45.25
PZ-01D	12/6/2005 14:23	44.72
PZ-01D	12/15/2005 13:55	45.05
PZ-01D	12/21/2005 15:55	45.59
PZ-01D	12/29/2005 10:30	45.98
PZ-01D	1/5/2006 13:28	45.28
PZ-01D	1/12/2006 10:12	44.39
PZ-01D	1/19/2006 13:05	43.5
PZ-01D	1/26/2006 13:38	43.53
PZ-01D	2/2/2006 10:58	43.53
PZ-01D	2/23/2006 13:44	43.93
PZ-01D	3/2/2006 11:20	44.41
PZ-01D	3/9/2006 14:45	45.28
PZ-01D	3/16/2006 13:34	45
PZ-01D	3/23/2006 14:26	44.48
PZ-01D	3/31/2006 15:00	44.99
PZ-01D	4/6/2006 13:25	45.32
PZ-01D	4/13/2006 15:40	45.5
PZ-01D	4/20/2006 15:23	45.86
PZ-01D	4/26/2006 14:04	45.85
PZ-01D	5/4/2006 13:43	45.69
PZ-01D	5/11/2006 14:36	46.32
PZ-01D	5/18/2006 13:48	46.76
PZ-01D	5/25/2006 14:07	47.18
PZ-01D	6/1/2006 14:00	47.47

Piezometer	Date and Time	Depth from Top of Casing (ft)
BA-1S	10/15/2005 8:30	Dry at 19.84
BA-1S	10/17/2005 14:00	Dry at 19.85
BA-1S	10/18/2005 15:45	Dry at 19.86
BA-1S	10/19/2005 8:12	Dry at 19.86
BA-1S	10/20/2005 16:00	Dry at 19.89
BA-1S	10/21/2005 8:33	Dry at 19.88
BA-1S	10/24/2005 15:50	Dry at 19.85
BA-1S	10/31/2005 13:51	Dry at 19.88
BA-1S	11/2/2005 14:16	Dry at 19.87
BA-1S	11/4/2005 11:56	15.51
BA-1S	11/7/2005 15:28	16.75
BA-1S	11/11/2005 13:28	15.9
BA-1S	11/14/2005 16:25	Dry at 19.88
BA-1S	11/17/2005 15:05	13.75
BA-1S	11/21/2005 12:02	14.1
BA-1S	12/2/2005 11:23	12.94
BA-1S	12/6/2005 14:25	13.89
BA-1S	12/15/2005 13:59	14.45
BA-1S	12/21/2005 15:57	16.43
BA-1S	12/29/2005 10:32	14.84
BA-1S	1/5/2006 13:30	14
BA-1S	1/12/2006 10:14	12.16
BA-1S	1/19/2006 13:11	11.45
BA-1S	1/26/2006 13:41	12.4
BA-1S	2/2/2006 10:58	11.93
BA-1S	2/23/2006 13:47	13.8
BA-1S	3/2/2006 11:23	14.18
BA-1S	3/9/2006 14:47	16.11
BA-1S	3/16/2006 13:36	12.94
BA-1S	3/23/2006 14:29	13.95
BA-1S	3/31/2006 15:03	14.23
BA-1S	4/6/2006 13:27	14.22
BA-1S	4/13/2006 15:43	14.24
BA-1S	4/20/2006 15:27	14.71
BA-1S	4/26/2006 14:07	13.96
BA-1S	5/4/2006 13:46	14.47
BA-1S	5/11/2006 14:37	16.66
BA-1S	5/18/2006 13:51	16.11
BA-1S	5/25/2006 14:10	16.77
BA-1S	6/1/2006 14:02	18.21

**Wastedbed 13 Pilot Study**

Piezometer	Date and Time	Depth from Top of Casing (ft)
PZ-01I	6/8/2006 14:06	30.38
PZ-01I	6/15/2006 13:16	30.62
PZ-01I	6/22/2006 13:25	30.86
PZ-01I	6/29/2006 14:48	31.05
PZ-01I	7/6/2006 14:10	31.24
PZ-01I	7/13/2006 14:15	30.99
PZ-01I	7/20/2006 9:59	29.47
PZ-01I	7/27/2006 9:44	29.72
PZ-01I	8/3/2006 9:25	30.1
PZ-01I	8/10/2006 13:23	30.48
PZ-01I	8/17/2006 15:16	30.86
PZ-01I	8/24/2006 14:50	31.12
PZ-01I	8/31/2006 9:31	31.42
PZ-01I	9/7/2006 14:17	31.68
PZ-01I	9/14/2006 14:19	31.82
PZ-01I	9/28/2006 14:22	Dry at 47.11
PZ-01I	10/5/2006 15:17	32.25
PZ-01I	10/12/2006 14:16	32
PZ-01I	10/20/2006 14:54	31.69
PZ-01I	10/26/2006 14:32	28.68
PZ-01I	11/8/2006 12:38	27.68
PZ-01I	11/15/2006 15:47	28.7
PZ-01I	12/7/2006 14:39	25.31
PZ-01I	12/14/2006 13:44	26.96
PZ-01I	12/21/2006 13:10	28.32
PZ-01I	12/28/2006 13:26	26.86
PZ-01I	1/11/2007 15:01	24
PZ-01I	3/7/2007 10:02	30.25
PZ-01I	4/12/2007 11:06	19.25
PZ-01I	5/10/2007 11:29	20.75
PZ-01I	6/21/2007 12:56	30.85
PZ-01I	7/12/2007 12:56	31.65
PZ-01I	8/15/2007 13:02	32.47
PZ-01I	9/20/2007 14:02	33.1
PZ-01I	10/25/2007 15:06	33.54
PZ-01I	11/28/2007 12:06	33.26
PZ-01I	12/28/2007 12:25	25.54
PZ-01I	3/6/2008 12:05	25.15
PZ-01I	6/13/2008 11:50	31
PZ-01I	9/18/2008 13:25	32.91

Piezometer	Date and Time	Depth from Top of Casing (ft)
PZ-01D	6/8/2006 14:04	47.61
PZ-01D	6/15/2006 13:15	47.78
PZ-01D	6/22/2006 13:24	47.97
PZ-01D	6/29/2006 14:46	48.12
PZ-01D	7/6/2006 14:08	48.33
PZ-01D	7/13/2006 14:14	48.2
PZ-01D	7/20/2006 9:57	47.41
PZ-01D	7/27/2006 9:42	46.98
PZ-01D	8/3/2006 9:23	47.16
PZ-01D	8/10/2006 13:22	47.52
PZ-01D	8/17/2006 15:15	47.92
PZ-01D	8/24/2006 14:51	48.17
PZ-01D	8/31/2006 9:30	48.41
PZ-01D	9/7/2006 14:15	48.53
PZ-01D	9/14/2006 14:17	48.67
PZ-01D	9/28/2006 14:20	49
PZ-01D	10/5/2006 15:15	48.99
PZ-01D	10/12/2006 14:15	48.88
PZ-01D	10/20/2006 14:52	48.7
PZ-01D	10/26/2006 14:30	47.6
PZ-01D	11/8/2006 12:36	45.09
PZ-01D	11/15/2006 15:45	45.65
PZ-01D	12/7/2006 14:38	44.25
PZ-01D	12/14/2006 13:42	44.48
PZ-01D	12/21/2006 13:08	45.21
PZ-01D	12/28/2006 13:25	45.21
PZ-01D	1/11/2007 14:59	44
PZ-01D	3/7/2007 10:04	47.52
PZ-01D	4/12/2007 11:05	40.36
PZ-01D	5/10/2007 11:27	41.1
PZ-01D	6/21/2007 12:55	47.7
PZ-01D	7/12/2007 12:55	48.55
PZ-01D	8/15/2007 13:00	49.22
PZ-01D	9/20/2007 14:00	49.56
PZ-01D	10/25/2007 15:05	49.7
PZ-01D	11/28/2007 12:06	49.66
PZ-01D	12/28/2007 12:25	46
PZ-01D	3/6/2008 12:05	44.85
PZ-01D	6/13/2008 11:50	48.3
PZ-01D	9/18/2008 13:25	49.5

Piezometer	Date and Time	Depth from Top of Casing (ft)
BA-1S	6/8/2006 14:07	18.18
BA-1S	6/15/2006 13:17	19.05
BA-1S	6/22/2006 13:26	Dry at 19.87
BA-1S	6/29/2006 14:51	Dry at 19.86
BA-1S	7/6/2006 14:12	Dry at 19.89
BA-1S	7/13/2006 14:17	14.55
BA-1S	7/20/2006 10:01	15.86
BA-1S	7/27/2006 9:46	17.9
BA-1S	8/3/2006 9:28	18.46
BA-1S	8/10/2006 13:24	18.88
BA-1S	8/17/2006 15:17	Dry at 19.87
BA-1S	8/24/2006 14:52	Dry at 19.86
BA-1S	8/31/2006 9:30	Dry at 19.85
BA-1S	9/7/2006 14:18	Dry at 19.83
BA-1S	9/14/2006 14:20	Dry at 19.85
BA-1S	9/28/2006 14:24	Dry at 19.87
BA-1S	10/5/2006 15:19	18.93
BA-1S	10/12/2006 14:18	19.27
BA-1S	10/20/2006 14:56	14.3
BA-1S	10/26/2006 14:34	14.05
BA-1S	11/8/2006 12:40	14.26
BA-1S	11/15/2006 15:49	14.18
BA-1S	12/7/2006 14:41	13.65
BA-1S	12/14/2006 13:45	14.11
BA-1S	12/21/2006 13:12	14.64
BA-1S	12/28/2006 13:27	13.41
BA-1S	1/11/2007 15:03	12.41
BA-1S	3/7/2007 10:00	15.48
BA-1S	4/12/2007 11:07	7.52
BA-1S	5/10/2007 11:30	9.51
BA-1S	6/21/2007 12:57	Dry at 19.85
BA-1S	7/12/2007 12:57	Dry at 19.85
BA-1S	8/15/2007 13:03	Dry at 19.86
BA-1S	9/20/2007 14:04	Dry at 19.85
BA-1S	10/25/2007 15:07	Dry at 19.85
BA-1S	11/28/2007 12:06	Dry at 19.85
BA-1S	12/28/2007 12:25	13.93
BA-1S	3/6/2008 12:05	12.2
BA-1S	6/13/2008 11:50	Dry at 19.85
BA-1S	9/18/2008 13:25	Dry at 19.86

**Wastebed 13 Pilot Study**

October 2005 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
10/1/2005		0
10/2/2005		0
10/3/2005		0
10/4/2005		0
10/5/2005		0
10/6/2005		0
10/7/2005	0	0
10/8/2005	1	0.01
10/9/2005	2	0.16
10/10/2005	3	0.01
10/11/2005	4	0.03
10/12/2005	5	0.34
10/13/2005	6	1.23
10/14/2005	7	0.16
10/15/2005	8	0.07
10/16/2005	9	0.01
10/17/2005	10	0.05
10/18/2005	11	0.03
10/19/2005	12	0.01
10/20/2005	13	0.01
10/21/2005	14	0
10/22/2005	15	1.01
10/23/2005	16	0.2
10/24/2005	17	0.14
10/25/2005	18	1.18
10/26/2005	19	0.04
10/27/2005	20	0
10/28/2005	21	0
10/29/2005	22	0
10/30/2005	23	0
10/31/2005	24	0

November 2005 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
11/1/2005	25	0.2
11/2/2005	26	0.01
11/3/2005	27	0
11/4/2005	28	0
11/5/2005	29	0
11/6/2005	30	0.22
11/7/2005	31	0
11/8/2005	32	0
11/9/2005	33	1.01
11/10/2005	34	0.01
11/11/2005	35	0
11/12/2005	36	0
11/13/2005	37	0
11/14/2005	38	0
11/15/2005	39	1.14
11/16/2005	40	0.42
11/17/2005	41	0.01
11/18/2005	42	0.03
11/19/2005	43	0
11/20/2005	44	0
11/21/2005	45	0
11/22/2005	46	0.01
11/23/2005	47	0.01
11/24/2005	48	0.03
11/25/2005	49	0
11/26/2005	50	0.01
11/27/2005	51	0.01
11/28/2005	52	0.01
11/29/2005	53	1.41
11/30/2005	54	0.03

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

December 2005 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
12/1/2005	55	0.01
12/2/2005	56	0.14
12/3/2005	57	0.05
12/4/2005	58	0.08
12/5/2005	59	0
12/6/2005	60	0.03
12/7/2005	61	0.05
12/8/2005	62	0
12/9/2005	63	0.2
12/10/2005	64	0
12/11/2005	65	0
12/12/2005	66	0.01
12/13/2005	67	0
12/14/2005	68	0
12/15/2005	69	0.26
12/16/2005	70	0.72
12/17/2005	71	0
12/18/2005	72	0
12/19/2005	73	0.01
12/20/2005	74	0.01
12/21/2005	75	0.01
12/22/2005	76	0.01
12/23/2005	77	0.05
12/24/2005	78	0
12/25/2005	79	0.55
12/26/2005	80	0.03
12/27/2005	81	0
12/28/2005	82	0.03
12/29/2005	83	0.1
12/30/2005	84	0
12/31/2005	85	0.08

January 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
1/1/2006	86	0.01
1/2/2006	87	0.24
1/3/2006	88	0.07
1/4/2006	89	0.11
1/5/2006	90	0.14
1/6/2006	91	0
1/7/2006	92	0.01
1/8/2006	93	0
1/9/2006	94	0
1/10/2006	95	0
1/11/2006	96	0.18
1/12/2006	97	0
1/13/2006	98	0.09
1/14/2006	99	0.41
1/15/2006	100	0.01
1/16/2006	101	0
1/17/2006	102	0.07
1/18/2006	103	0.42
1/19/2006	104	0
1/20/2006	105	0
1/21/2006	106	0.03
1/22/2006	107	0
1/23/2006	108	0.18
1/24/2006	109	0.04
1/25/2006	110	0.17
1/26/2006	111	0
1/27/2006	112	0
1/28/2006	113	0
1/29/2006	114	0.57
1/30/2006	115	0
1/31/2006	116	0.19

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

February 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
2/1/2006	117	0.06
2/2/2006	118	0.12
2/3/2006	119	0.48
2/4/2006	120	0.24
2/5/2006	121	0.03
2/6/2006	122	0.06
2/7/2006	123	0.1
2/8/2006	124	0
2/9/2006	125	0.01
2/10/2006	126	0.01
2/11/2006	127	0.02
2/12/2006	128	0
2/13/2006	129	0.01
2/14/2006	130	0
2/15/2006	131	0
2/16/2006	132	0
2/17/2006	133	0.05
2/18/2006	134	0.07
2/19/2006	135	0.03
2/20/2006	136	0
2/21/2006	137	0.01
2/22/2006	138	0
2/23/2006	139	0.09
2/24/2006	140	0.01
2/25/2006	141	0.05
2/26/2006	142	0.05
2/27/2006	143	0.03
2/28/2006	144	0.13

March 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
3/1/2006	145	0.03
3/2/2006	146	0
3/3/2006	147	0.01
3/4/2006	148	0.02
3/5/2006	149	0
3/6/2006	150	0
3/7/2006	151	0
3/8/2006	152	0
3/9/2006	153	0.51
3/10/2006	154	0
3/11/2006	155	0
3/12/2006	156	0.01
3/13/2006	157	0.9
3/14/2006	158	0.02
3/15/2006	159	0.02
3/16/2006	160	0
3/17/2006	161	0
3/18/2006	162	0.02
3/19/2006	163	0.09
3/20/2006	164	0
3/21/2006	165	0
3/22/2006	166	0.04
3/23/2006	167	0
3/24/2006	168	0.09
3/25/2006	169	0
3/26/2006	170	0
3/27/2006	171	0
3/28/2006	172	0
3/29/2006	173	0
3/30/2006	174	0
3/31/2006	175	0.01

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

April 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
4/1/2006	176	0.4
4/2/2006	177	0
4/3/2006	178	0.54
4/4/2006	179	0.23
4/5/2006	180	0.01
4/6/2006	181	0.01
4/7/2006	182	0.25
4/8/2006	183	0
4/9/2006	184	0
4/10/2006	185	0
4/11/2006	186	0
4/12/2006	187	0
4/13/2006	188	0.03
4/14/2006	189	0.09
4/15/2006	190	0.7
4/16/2006	191	0
4/17/2006	192	0
4/18/2006	193	0
4/19/2006	194	0
4/20/2006	195	0
4/21/2006	196	0
4/22/2006	197	1.26
4/23/2006	198	0.06
4/24/2006	199	0.06
4/25/2006	200	0
4/26/2006	201	0
4/27/2006	202	0
4/28/2006	203	0
4/29/2006	204	0
4/30/2006	205	0

May 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
5/1/2006	206	0
5/2/2006	207	0
5/3/2006	208	0
5/4/2006	209	0.07
5/5/2006	210	0
5/6/2006	211	0.18
5/7/2006	212	0
5/8/2006	213	0
5/9/2006	214	0
5/10/2006	215	0
5/11/2006	216	0.2
5/12/2006	217	0.64
5/13/2006	218	0.03
5/14/2006	219	0
5/15/2006	220	0.09
5/16/2006	221	0
5/17/2006	222	0.12
5/18/2006	223	0.24
5/19/2006	224	0
5/20/2006	225	0.16
5/21/2006	226	0.22
5/22/2006	227	0
5/23/2006	228	0
5/24/2006	229	0
5/25/2006	230	0
5/26/2006	231	0.2
5/27/2006	232	0
5/28/2006	233	0
5/29/2006	234	0.05
5/30/2006	235	0
5/31/2006	236	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

June 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
6/1/2006	237	0.01
6/2/2006	238	0
6/3/2006	239	1.36
6/4/2006	240	0.05
6/5/2006	241	0
6/6/2006	242	0
6/7/2006	243	0.03
6/8/2006	244	0.04
6/9/2006	245	0.34
6/10/2006	246	0.01
6/11/2006	247	0
6/12/2006	248	0
6/13/2006	249	0
6/14/2006	250	0
6/15/2006	251	0
6/16/2006	252	0
6/17/2006	253	0.31
6/18/2006	254	0
6/19/2006	255	0.24
6/20/2006	256	0
6/21/2006	257	0
6/22/2006	258	0
6/23/2006	259	0
6/24/2006	260	0
6/25/2006	261	0
6/26/2006	262	0.58
6/27/2006	263	1.43
6/28/2006	264	0.51
6/29/2006	265	0.12
6/30/2006	266	0

July 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
7/1/2006	267	0
7/2/2006	268	0.81
7/3/2006	269	0
7/4/2006	270	0.68
7/5/2006	271	0
7/6/2006	272	0
7/7/2006	273	0
7/8/2006	274	0
7/9/2006	275	0
7/10/2006	276	0.42
7/11/2006	277	0
7/12/2006	278	4.28
7/13/2006	279	0
7/14/2006	280	0
7/15/2006	281	1.01
7/16/2006	282	0
7/17/2006	283	0
7/18/2006	284	0
7/19/2006	285	0
7/20/2006	286	0.12
7/21/2006	287	0
7/22/2006	288	0.7
7/23/2006	289	0
7/24/2006	290	0
7/25/2006	291	0.62
7/26/2006	292	0
7/27/2006	293	0.1
7/28/2006	294	0.48
7/29/2006	295	0.85
7/30/2006	296	0
7/31/2006	297	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

August 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
8/1/2006	298	0
8/2/2006	299	0.09
8/3/2006	300	0.35
8/4/2006	301	0.33
8/5/2006	302	0
8/6/2006	303	0.01
8/7/2006	304	0.62
8/8/2006	305	0
8/9/2006	306	0
8/10/2006	307	0
8/11/2006	308	0
8/12/2006	309	0
8/13/2006	310	0
8/14/2006	311	0.11
8/15/2006	312	0
8/16/2006	313	0
8/17/2006	314	0
8/18/2006	315	0.01
8/19/2006	316	0.27
8/20/2006	317	0.09
8/21/2006	318	0
8/22/2006	319	0
8/23/2006	320	0
8/24/2006	321	0
8/25/2006	322	0.19
8/26/2006	323	0.11
8/27/2006	324	0
8/28/2006	325	0.03
8/29/2006	326	0.66
8/30/2006	327	0
8/31/2006	328	0

September 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
9/1/2006	329	0
9/2/2006	330	0.74
9/3/2006	331	0.03
9/4/2006	332	0
9/5/2006	333	0
9/6/2006	334	0.01
9/7/2006	335	0
9/8/2006	336	0
9/9/2006	337	0
9/10/2006	338	0
9/11/2006	339	0
9/12/2006	340	0.11
9/13/2006	341	0.74
9/14/2006	342	0.19
9/15/2006	343	0
9/16/2006	344	0
9/17/2006	345	0
9/18/2006	346	0
9/19/2006	347	0.06
9/20/2006	348	0.03
9/21/2006	349	0.07
9/22/2006	350	0
9/23/2006	351	0.47
9/24/2006	352	0.19
9/25/2006	353	0.07
9/26/2006	354	0
9/27/2006	355	0
9/28/2006	356	0.31
9/29/2006	357	0.03
9/30/2006	358	0.01

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

October 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
10/1/2006	359	0.01
10/2/2006	360	0
10/3/2006	361	0.03
10/4/2006	362	0
10/5/2006	363	0
10/6/2006	364	0
10/7/2006	365	0
10/8/2006	366	0
10/9/2006	367	0
10/10/2006	368	0
10/11/2006	369	0
10/12/2006	370	0.19
10/13/2006	371	0
10/14/2006	372	0
10/15/2006	373	0
10/16/2006	374	0
10/17/2006	375	0.62
10/18/2006	376	0
10/19/2006	377	0.39
10/20/2006	378	0.62
10/21/2006	379	0
10/22/2006	380	0.01
10/23/2006	381	0.07
10/24/2006	382	0.25
10/25/2006	383	0.03
10/26/2006	384	0.03
10/27/2006	385	0.55
10/28/2006	386	0.92
10/29/2006	387	0
10/30/2006	388	0
10/31/2006	389	0

November 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
11/1/2006	390	0.05
11/2/2006	391	0.09
11/3/2006	392	0.21
11/4/2006	393	0
11/5/2006	394	0.02
11/6/2006	395	
11/7/2006	396	0.29
11/8/2006	397	0.32
11/9/2006	398	0
11/10/2006	399	
11/11/2006	400	
11/12/2006	401	
11/13/2006	402	
11/14/2006	403	0.72
11/15/2006	404	0.35
11/16/2006	405	1.37
11/17/2006	406	0.15
11/18/2006	407	0
11/19/2006	408	0.09
11/20/2006	409	0.01
11/21/2006	410	0
11/22/2006	411	0
11/23/2006	412	0
11/24/2006	413	0
11/25/2006	414	0
11/26/2006	415	0
11/27/2006	416	0
11/28/2006	417	0
11/29/2006	418	
11/30/2006	419	

**Notes:**

- Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).
- Empty entries indicate precipitation data are not available.

**Wastebed 13 Pilot Study**

December 2006 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
12/1/2006	420	
12/2/2006	421	
12/3/2006	422	0.2
12/4/2006	423	0.03
12/5/2006	424	0
12/6/2006	425	0.38
12/7/2006	426	0.07
12/8/2006	427	0
12/9/2006	428	0
12/10/2006	429	0.23
12/11/2006	430	0
12/12/2006	431	0.4
12/13/2006	432	0
12/14/2006	433	0
12/15/2006	434	0.1
12/16/2006	435	0
12/17/2006	436	0.02
12/18/2006	437	0.05
12/19/2006	438	0.1
12/20/2006	439	0
12/21/2006	440	0
12/22/2006	441	1.4
12/23/2006	442	0.24
12/24/2006	443	0.03
12/25/2006	444	0.71
12/26/2006	445	0.13
12/27/2006	446	0.23
12/28/2006	447	0
12/29/2006	448	0.01
12/30/2006	449	0.18
12/31/2006	450	0.23

January 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
1/1/2007	451	0.32
1/2/2007	452	0.01
1/3/2007	453	0
1/4/2007	454	0.19
1/5/2007	455	1.48
1/6/2007	456	0.38
1/7/2007	457	0.56
1/8/2007	458	0.59
1/9/2007	459	0.56
1/10/2007	460	0.46
1/11/2007	461	0.01
1/12/2007	462	0.33
1/13/2007	463	0.49
1/14/2007	464	0.45
1/15/2007	465	0.87
1/16/2007	466	0.02
1/17/2007	467	0
1/18/2007	468	0.07
1/19/2007	469	0.66
1/20/2007	470	0.13
1/21/2007	471	0.06
1/22/2007	472	0.13
1/23/2007	473	0.14
1/24/2007	474	0.15
1/25/2007	475	0
1/26/2007	476	0.01
1/27/2007	477	0.04
1/28/2007	478	0
1/29/2007	479	0.05
1/30/2007	480	0
1/31/2007	481	0.03

**Notes:**

- Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).
- Empty entries indicate precipitation data are not available.

**Wastebed 13 Pilot Study**

February 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
2/1/2007	482	0
2/2/2007	483	0.31
2/3/2007	484	0
2/4/2007	485	0
2/5/2007	486	0.28
2/6/2007	487	0.02
2/7/2007	488	0.01
2/8/2007	489	0.2
2/9/2007	490	0.21
2/10/2007	491	0.08
2/11/2007	492	0
2/12/2007	493	0.04
2/13/2007	494	0.18
2/14/2007	495	0.95
2/15/2007	496	0.2
2/16/2007	497	0.17
2/17/2007	498	0.05
2/18/2007	499	0
2/19/2007	500	0
2/20/2007	501	0.15
2/21/2007	502	0
2/22/2007	503	0.38
2/23/2007	504	0.13
2/24/2007	505	0
2/25/2007	506	0.24
2/26/2007	507	0.23
2/27/2007	508	0.02
2/28/2007	509	0

March 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
3/1/2007	510	0.21
3/2/2007	511	1.29
3/3/2007	512	0.11
3/4/2007	513	0.19
3/5/2007	514	0.28
3/6/2007	515	0.01
3/7/2007	516	0.06
3/8/2007	517	0.04
3/9/2007	518	0
3/10/2007	519	0.77
3/11/2007	520	0.05
3/12/2007	521	0
3/13/2007	522	0.01
3/14/2007	523	0.55
3/15/2007	524	0.78
3/16/2007	525	0.18
3/17/2007	526	0.41
3/18/2007	527	0.08
3/19/2007	528	0.18
3/20/2007	529	0.03
3/21/2007	530	0.02
3/22/2007	531	0.19
3/23/2007	532	0
3/24/2007	533	0.46
3/25/2007	534	0
3/26/2007	535	2.71
3/27/2007	536	0
3/28/2007	537	0
3/29/2007	538	0
3/30/2007	539	0
3/31/2007	540	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

April 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
4/1/2007	541	0.8
4/2/2007	542	0.15
4/3/2007	543	0
4/4/2007	544	0.72
4/5/2007	545	0.23
4/6/2007	546	0.06
4/7/2007	547	0.04
4/8/2007	548	0.24
4/9/2007	549	0.05
4/10/2007	550	0.09
4/11/2007	551	0.08
4/12/2007	552	0.73
4/13/2007	553	0.41
4/14/2007	554	0.02
4/15/2007	555	0.57
4/16/2007	556	0.58
4/17/2007	557	0.31
4/18/2007	558	0
4/19/2007	559	0
4/20/2007	560	0
4/21/2007	561	0
4/22/2007	562	0
4/23/2007	563	0.28
4/24/2007	564	0.02
4/25/2007	565	0.33
4/26/2007	566	0.04
4/27/2007	567	0.62
4/28/2007	568	0.46
4/29/2007	569	0.35
4/30/2007	570	0.1

May 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
5/1/2007	571	0
5/2/2007	572	0
5/3/2007	573	0
5/4/2007	574	0
5/5/2007	575	0
5/6/2007	576	0
5/7/2007	577	0
5/8/2007	578	0
5/9/2007	579	0
5/10/2007	580	0.11
5/11/2007	581	0
5/12/2007	582	0
5/13/2007	583	0
5/14/2007	584	0
5/15/2007	585	0.28
5/16/2007	586	0.17
5/17/2007	587	0
5/18/2007	588	0
5/19/2007	589	0
5/20/2007	590	0
5/21/2007	591	0
5/22/2007	592	0
5/23/2007	593	0
5/24/2007	594	0
5/25/2007	595	0.07
5/26/2007	596	0
5/27/2007	597	0.33
5/28/2007	598	0
5/29/2007	599	0
5/30/2007	600	0
5/31/2007	601	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

June 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
6/1/2007	602	0
6/2/2007	603	0
6/3/2007	604	0.74
6/4/2007	605	0.98
6/5/2007	606	0.36
6/6/2007	607	0
6/7/2007	608	0
6/8/2007	609	0.47
6/9/2007	610	0
6/10/2007	611	0
6/11/2007	612	0
6/12/2007	613	0
6/13/2007	614	0
6/14/2007	615	0
6/15/2007	616	0
6/16/2007	617	0
6/17/2007	618	0.03
6/18/2007	619	0
6/19/2007	620	2.32
6/20/2007	621	0.05
6/21/2007	622	0.06
6/22/2007	623	0
6/23/2007	624	0
6/24/2007	625	0
6/25/2007	626	0
6/26/2007	627	0
6/27/2007	628	0.26
6/28/2007	629	0
6/29/2007	630	0
6/30/2007	631	0

July 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
7/1/2007	632	0
7/2/2007	633	0
7/3/2007	634	0
7/4/2007	635	0.31
7/5/2007	636	0.18
7/6/2007	637	0
7/7/2007	638	0
7/8/2007	639	1.53
7/9/2007	640	0.27
7/10/2007	641	0
7/11/2007	642	0.78
7/12/2007	643	0
7/13/2007	644	0.33
7/14/2007	645	0.28
7/15/2007	646	0.22
7/16/2007	647	0
7/17/2007	648	0.15
7/18/2007	649	0.3
7/19/2007	650	0.69
7/20/2007	651	0.45
7/21/2007	652	0
7/22/2007	653	0
7/23/2007	654	0.44
7/24/2007	655	0.21
7/25/2007	656	0
7/26/2007	657	0
7/27/2007	658	0.48
7/28/2007	659	0
7/29/2007	660	0
7/30/2007	661	0
7/31/2007	662	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

August 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
8/1/2007	663	0
8/2/2007	664	0
8/3/2007	665	0.38
8/4/2007	666	0
8/5/2007	667	0
8/6/2007	668	0
8/7/2007	669	0.39
8/8/2007	670	0
8/9/2007	671	0.1
8/10/2007	672	0.3
8/11/2007	673	0
8/12/2007	674	0.03
8/13/2007	675	0
8/14/2007	676	0
8/15/2007	677	0
8/16/2007	678	0
8/17/2007	679	0.36
8/18/2007	680	0
8/19/2007	681	0
8/20/2007	682	0.01
8/21/2007	683	0.02
8/22/2007	684	0
8/23/2007	685	0.56
8/24/2007	686	0.07
8/25/2007	687	1.33
8/26/2007	688	0
8/27/2007	689	0
8/28/2007	690	0
8/29/2007	691	0
8/30/2007	692	0
8/31/2007	693	0

September 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
9/1/2007	694	0
9/2/2007	695	0
9/3/2007	696	0
9/4/2007	697	0
9/5/2007	698	0
9/6/2007	699	0.02
9/7/2007	700	0
9/8/2007	701	0.16
9/9/2007	702	1.5
9/10/2007	703	0.48
9/11/2007	704	0.66
9/12/2007	705	0.05
9/13/2007	706	0
9/14/2007	707	0.14
9/15/2007	708	0.61
9/16/2007	709	0
9/17/2007	710	0
9/18/2007	711	0
9/19/2007	712	0
9/20/2007	713	0
9/21/2007	714	0
9/22/2007	715	0
9/23/2007	716	0
9/24/2007	717	0
9/25/2007	718	0
9/26/2007	719	0.56
9/27/2007	720	0.77
9/28/2007	721	0.37
9/29/2007	722	0
9/30/2007	723	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

October 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
10/1/2007	724	0
10/2/2007	725	0.01
10/3/2007	726	0
10/4/2007	727	0
10/5/2007	728	0
10/6/2007	729	0.38
10/7/2007	730	0.08
10/8/2007	731	0.66
10/9/2007	732	0.26
10/10/2007	733	0.06
10/11/2007	734	1.4
10/12/2007	735	0
10/13/2007	736	0.38
10/14/2007	737	0.03
10/15/2007	738	0
10/16/2007	739	0
10/17/2007	740	0.02
10/18/2007	741	0
10/19/2007	742	0.82
10/20/2007	743	0.03
10/21/2007	744	0
10/22/2007	745	0.08
10/23/2007	746	2.09
10/24/2007	747	0.03
10/25/2007	748	0
10/26/2007	749	0.43
10/27/2007	750	0.76
10/28/2007	751	0
10/29/2007	752	0
10/30/2007	753	0
10/31/2007	754	0

November 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
11/1/2007	755	0.15
11/2/2007	756	0
11/3/2007	757	
11/4/2007	758	0.01
11/5/2007	759	0.55
11/6/2007	760	0.33
11/7/2007	761	0.26
11/8/2007	762	0
11/9/2007	763	0.08
11/10/2007	764	0.1
11/11/2007	765	0
11/12/2007	766	0.33
11/13/2007	767	0.24
11/14/2007	768	0.18
11/15/2007	769	1.96
11/16/2007	770	0.52
11/17/2007	771	0.19
11/18/2007	772	0
11/19/2007	773	0
11/20/2007	774	0.88
11/21/2007	775	0.46
11/22/2007	776	0.7
11/23/2007	777	0.13
11/24/2007	778	0
11/25/2007	779	0.07
11/26/2007	780	1.58
11/27/2007	781	0.35
11/28/2007	782	0.04
11/29/2007	783	0.05
11/30/2007	784	0.12

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

December 2007 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
12/1/2007	785	0.23
12/2/2007	786	0.27
12/3/2007	787	0.58
12/4/2007	788	0.32
12/5/2007	789	0.04
12/6/2007	790	0.12
12/7/2007	791	0
12/8/2007	792	0.01
12/9/2007	793	0.02
12/10/2007	794	0.06
12/11/2007	795	0.94
12/12/2007	796	0.47
12/13/2007	797	0.29
12/14/2007	798	0.03
12/15/2007	799	0.06
12/16/2007	800	0.51
12/17/2007	801	0.23
12/18/2007	802	0.03
12/19/2007	803	0.12
12/20/2007	804	0.06
12/21/2007	805	0
12/22/2007	806	0
12/23/2007	807	0.78
12/24/2007	808	0.09
12/25/2007	809	0
12/26/2007	810	0
12/27/2007	811	0.31
12/28/2007	812	0.18
12/29/2007	813	0.08
12/30/2007	814	0.07
12/31/2007	815	0.16

January 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
1/1/2008	816	0.15
1/2/2008	817	0.02
1/3/2008	818	0
1/4/2008	819	0
1/5/2008	820	0.05
1/6/2008	821	0
1/7/2008	822	0
1/8/2008	823	0
1/9/2008	824	0.23
1/10/2008	825	0.01
1/11/2008	826	1.08
1/12/2008	827	0.01
1/13/2008	828	0.01
1/14/2008	829	0.24
1/15/2008	830	0.14
1/16/2008	831	0
1/17/2008	832	0.06
1/18/2008	833	0.03
1/19/2008	834	0
1/20/2008	835	0.02
1/21/2008	836	0
1/22/2008	837	0
1/23/2008	838	0
1/24/2008	839	0
1/25/2008	840	0
1/26/2008	841	0
1/27/2008	842	0
1/28/2008	843	0
1/29/2008	844	0.03
1/30/2008	845	0.22
1/31/2008	846	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

February 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
2/1/2008	847	0.84
2/2/2008	848	0.11
2/3/2008	849	0
2/4/2008	850	0.14
2/5/2008	851	0.65
2/6/2008	852	1.79
2/7/2008	853	0.06
2/8/2008	854	0.04
2/9/2008	855	0.15
2/10/2008	856	0.11
2/11/2008	857	0
2/12/2008	858	0.13
2/13/2008	859	0.64
2/14/2008	860	0.07
2/15/2008	861	0.12
2/16/2008	862	0.03
2/17/2008	863	0.27
2/18/2008	864	0.03
2/19/2008	865	0
2/20/2008	866	0
2/21/2008	867	0
2/22/2008	868	0.09
2/23/2008	869	0.05
2/24/2008	870	0.04
2/25/2008	871	0
2/26/2008	872	0.51
2/27/2008	873	0.05
2/28/2008	874	0.01
2/29/2008	875	0.16

March 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
3/1/2008	876	0.23
3/2/2008	877	0.01
3/3/2008	878	0
3/4/2008	879	0.45
3/5/2008	880	0.49
3/6/2008	881	0
3/7/2008	882	0.62
3/8/2008	883	0.85
3/9/2008	884	0.04
3/10/2008	885	0
3/11/2008	886	0
3/12/2008	887	0.23
3/13/2008	888	0.09
3/14/2008	889	0.25
3/15/2008	890	0.01
3/16/2008	891	0.03
3/17/2008	892	0
3/18/2008	893	0.15
3/19/2008	894	1.53
3/20/2008	895	0.07
3/21/2008	896	0.04
3/22/2008	897	0
3/23/2008	898	0
3/24/2008	899	0
3/25/2008	900	0.2
3/26/2008	901	0.07
3/27/2008	902	0.21
3/28/2008	903	0.31
3/29/2008	904	0
3/30/2008	905	0
3/31/2008	906	0.58

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211  
(Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

April 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
4/1/2008	907	0.12
4/2/2008	908	0
4/3/2008	909	0
4/4/2008	910	0.75
4/5/2008	911	0.02
4/6/2008	912	0
4/7/2008	913	0
4/8/2008	914	0
4/9/2008	915	0
4/10/2008	916	0
4/11/2008	917	0.53
4/12/2008	918	0.17
4/13/2008	919	0
4/14/2008	920	0
4/15/2008	921	0
4/16/2008	922	0
4/17/2008	923	0
4/18/2008	924	0
4/19/2008	925	0
4/20/2008	926	0
4/21/2008	927	0
4/22/2008	928	0
4/23/2008	929	0
4/24/2008	930	0
4/25/2008	931	0
4/26/2008	932	1.3
4/27/2008	933	0
4/28/2008	934	0.71
4/29/2008	935	0
4/30/2008	936	0

May 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
5/1/2008	937	0.2
5/2/2008	938	0.5
5/3/2008	939	0.32
5/4/2008	940	0.25
5/5/2008	941	0
5/6/2008	942	0
5/7/2008	943	0.4
5/8/2008	944	0.02
5/9/2008	945	0
5/10/2008	946	0
5/11/2008	947	0
5/12/2008	948	0
5/13/2008	949	0
5/14/2008	950	0.05
5/15/2008	951	0.34
5/16/2008	952	0.44
5/17/2008	953	0.67
5/18/2008	954	0.41
5/19/2008	955	0
5/20/2008	956	0
5/21/2008	957	0.2
5/22/2008	958	0.76
5/23/2008	959	0.02
5/24/2008	960	0
5/25/2008	961	0
5/26/2008	962	0.07
5/27/2008	963	0.15
5/28/2008	964	0
5/29/2008	965	0
5/30/2008	966	0
5/31/2008	967	0.2

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

June 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
6/1/2008	968	0
6/2/2008	969	0
6/3/2008	970	0.03
6/4/2008	971	0.03
6/5/2008	972	0.02
6/6/2008	973	1.63
6/7/2008	974	0
6/8/2008	975	0.24
6/9/2008	976	0
6/10/2008	977	0.43
6/11/2008	978	0
6/12/2008	979	0
6/13/2008	980	0
6/14/2008	981	0.04
6/15/2008	982	0.16
6/16/2008	983	1.09
6/17/2008	984	0.13
6/18/2008	985	0.08
6/19/2008	986	0.05
6/20/2008	987	0.07
6/21/2008	988	0.41
6/22/2008	989	0.19
6/23/2008	990	0.76
6/24/2008	991	0
6/25/2008	992	0
6/26/2008	993	0.22
6/27/2008	994	0.4
6/28/2008	995	0.16
6/29/2008	996	0.67
6/30/2008	997	0.15

July 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
7/1/2008	998	0
7/2/2008	999	0
7/3/2008	1000	0.43
7/4/2008	1001	0
7/5/2008	1002	0
7/6/2008	1003	0
7/7/2008	1004	0
7/8/2008	1005	0
7/9/2008	1006	0
7/10/2008	1007	0
7/11/2008	1008	0.11
7/12/2008	1009	0
7/13/2008	1010	0.98
7/14/2008	1011	0
7/15/2008	1012	0
7/16/2008	1013	0
7/17/2008	1014	0
7/18/2008	1015	0
7/19/2008	1016	0
7/20/2008	1017	0.82
7/21/2008	1018	0.23
7/22/2008	1019	0.78
7/23/2008	1020	0
7/24/2008	1021	0.69
7/25/2008	1022	0
7/26/2008	1023	0.1
7/27/2008	1024	0.07
7/28/2008	1025	0.07
7/29/2008	1026	0
7/30/2008	1027	0
7/31/2008	1028	0

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).

**Wastebed 13 Pilot Study**

August 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
8/1/2008	1029	0.12
8/2/2008	1030	0.31
8/3/2008	1031	0
8/4/2008	1032	0
8/5/2008	1033	0.06
8/6/2008	1034	0
8/7/2008	1035	0.9
8/8/2008	1036	0.38
8/9/2008	1037	0.21
8/10/2008	1038	0.27
8/11/2008	1039	0.07
8/12/2008	1040	0
8/13/2008	1041	0.36
8/14/2008	1042	0
8/15/2008	1043	0
8/16/2008	1044	0.06
8/17/2008	1045	0
8/18/2008	1046	0.51
8/19/2008	1047	0
8/20/2008	1048	0
8/21/2008	1049	0
8/22/2008	1050	0
8/23/2008	1051	0
8/24/2008	1052	0
8/25/2008	1053	0
8/26/2008	1054	0
8/27/2008	1055	0
8/28/2008	1056	0.22
8/29/2008	1057	0.11
8/30/2008	1058	0.04
8/31/2008	1059	0

September 2008 SYR Airport 13211

Date	Time Elapsed from 10/7/05 (days)	Precipitation (inches)
9/1/2008	1060	0
9/2/2008	1061	0
9/3/2008	1062	0.01
9/4/2008	1063	0
9/5/2008	1064	0
9/6/2008	1065	0.05
9/7/2008	1066	0
9/8/2008	1067	0.19
9/9/2008	1068	0.18
9/10/2008	1069	0
9/11/2008	1070	0
9/12/2008	1071	0.61
9/13/2008	1072	0.42
9/14/2008	1073	0
9/15/2008	1074	0
9/16/2008	1075	0
9/17/2008	1076	0
9/18/2008	1077	0
9/19/2008	1078	0
9/20/2008	1079	0
9/21/2008	1080	0
9/22/2008	1081	0
9/23/2008	1082	0
9/24/2008	1083	0
9/25/2008	1084	0
9/26/2008	1085	0.1
9/27/2008	1086	0.74
9/28/2008	1087	0
9/29/2008	1088	0
9/30/2008	1089	0.46

**Note:**

Precipitation data were obtained from [www.weather.com](http://www.weather.com) for zip code 13211 (Syracuse Hancock International Airport).