Bucknell University
Bucknell Digital Commons

Master's Theses | Student Theses

Summer 2018

Experimental Study of Hydraulic Conductivity of a Soil-bentonite Cutoff Wall

Landon Crawford Barlow
Bucknell University, lcb020@bucknell.edu

Follow this and additional works at: https://digitalcommons.bucknell.edu/masters_theses

Part of the Environmental Engineering Commons, and the Geotechnical Engineering Commons

Recommended Citation
Barlow, Landon Crawford, "Experimental Study of Hydraulic Conductivity of a Soil-bentonite Cutoff Wall" (2018). *Master's Theses*. 210.
https://digitalcommons.bucknell.edu/masters_theses/210

This Masters Thesis is brought to you for free and open access by the Student Theses at Bucknell Digital Commons. It has been accepted for inclusion in Master's Theses by an authorized administrator of Bucknell Digital Commons. For more information, please contact dcadmin@bucknell.edu.

I, Landon C. Barlow, do grant permission for my thesis to be copied.

EXPERIMENTAL STUDY OF HYDRAULIC CONDUCTIVITY OF A SOIL-BENTONITE CUTOFF WALL

by

Landon C. Barlow

A Thesis

Presented to the Faculty of
Bucknell University
In Partial Fulfillment of the Requirements for the Degree of
Master of Science in Civil Engineering

Approved:

Adviser: Michael A. Malusis

Department Chairperson: Stephen G. Buonopane

Thesis Committee Member: Jeffrey C. Evans

Thesis Committee Member: Mary Beth Gray

July 2018
(Date: Month Year)

ACKNOWLEDGMENTS

I am grateful to Professors Michael A. Malusis and Jeffrey C. Evans for their guidance, creativity, patience, and for sharing their unique perspectives over the course of this research. The lessons I gained from these professors are incredibly appreciated. A special thanks to Professor Malusis for serving as my advisor at Bucknell and for sharing his valuable time, input, and experience. A special thanks to Dr. Jeffrey C. Evans who inspired and encouraged my graduate studies and has nurtured my intellectual curiosity.

A huge thanks to Jim Gutelius for his many efforts and problem solving ability. Everything goes better when Jim is helping. I am grateful for his example of preparation and proper procedure in all aspects of experimentation and field research. I would like to thank Professor Robert W. Jacob for his input and positive attitude towards this project and research in general. Thanks to Professor Mary Beth Gray for serving on this thesis committee and for her positive reassurance and input.

I would like to thank Christina E. Boyd for her constant motivation and example to do better and achieve what is beyond our current grasp. Thanks to Dr. Yuling Yang for her help in the laboratory and showing me what is possible in the world of research. Thanks to undergraduate students Roger Knittle, Ben Summers, Ben Finley, Brianna Lewis, Minwoo Cho, and Fernando Alves, who have each contributed to this research and allowed me to learn from them.

Financial support for this work was provided by the National Science Foundation (NSF) through Grant No. 1463198. The drilling rig used extensively in these studies was acquired with support from NSF through Grant No. 0625159. The opinions and recommendations provided in this paper are solely those of the authors and are not necessarily consistent with the policies of NSF. The authors gratefully acknowledge Central Builders Supply (Montandon, PA), CETCO (Hoffman Estates, IL) and Geo-Solutions, Inc. (New Kensington, PA) for the time, resources, and materials given to this study. Financial assistance also was provided the Jeffrey C. Evans Geotechnical Engineering Laboratory endowed by Michael and Laureen Costa.

Most importantly, reverent gratitude to my Heavenly Father for shining down an infinite light to show the path back to Him.

TABLE OF CONTENTS

LIST OF TABLES ..... **v**

LIST OF FIGURES ..... **vi**

ABSTRACT ..... **x**

1 INTRODUCTION **1**

1.1 Background **2**
1.2 Thesis Study Objectives **4**

2 LITERATURE REVIEW **6**

2.1 The State of Stress in Soil-Bentonite Cutoff Walls **6**
2.2 Hydraulic Conductivity of Soil-Bentonite Backfill **9**
2.3 Comparison of *k* Values From Various Test Methods **11**
2.4 Slug Tests in Cutoff Walls **14**
2.5 Piezocone Penetration Tests to Evaluate *k* **20**

3 CONSTRUCTION AND MONITORING OF AN INSTRUMENTED SOIL-BENTONITE CUTOFF WALL **23**

3.1 Introduction **23**
3.2 Background **25**
3.3 Wall Construction and Instrumentation **27**
3.4 Results and Discussion **33**
3.4.1 Backfill Properties 33
3.4.2 In-Situ Stress Measurements 36
3.4.3 Deformation Measurements 41
3.4.4 Adjacent Groundwater Monitoring 47

3.5 Summary and Conclusions **48**

4 ASSESMENT OF SOIL-BENTONITE HYDRAULIC CONDUCTIVITY **49**

4.1 Introduction **49**
4.2 Background **50**
4.3 Materials and Methods **51**
4.3.1 Laboratory Tests 52
4.3.2 In-Situ Tests (Field Slug Tests) 57

4.4 Results and Discussion **65**
4.4.1 Flexible-Wall Tests 65

4.4.2 Rigid Wall Oedometer *k* tests 72
4.4.3 Large-scale Rigid Wall *k* tests 74
4.4.4 In-situ Slug Test Results 76
Effect of Slug Initial Height (H_{SO}) 79
4.4.5 Influence of Stress on *k* 85
4.4.6 Spatial Variability of *k* 88

4.5 Conclusions 92

REFERENCES 93

APPENDIX A A-1

Results of Laboratory Hydraulic Conductivity Testing. A-1
Flexible Wall *k* Tests A-2
Oedometer Rigid Wall Test Results A-90
Large Scale Rigid Wall A-110

APPENDIX B B-1

Results of Slug Tests B-1

LIST OF TABLES

Table 3-1. Summary of testing frequencies during trench excavation and backfilling. 30
Table 3-2. Measured slumps for SB backfill using both standard (ASTM C143) and miniature slump cones, along with calculated values of standard slump from the miniature slump data based on Malusis et al. (2008). 35
Table 4-1. Applied pressure regime for flexible-wall tests. 53
Table 4-2. Parameters for calculating force of side friction between pea gravel and apparatus sidewall. 57
Table 4-3. Summary of shape factors, *S*, used to compute *k* from slug test data. 63
Table 4-4. Results of flexible-wall tests on remolded backfill specimens (duplicate specimens are denoted with D). 68
Table 4-5. Results of undisturbed flexible wall laboratory tests. 69
Table 4-6. Results of unpaired t test comparing the mean *k* value of remolded and undisturbed flexible wall tests at each effective stress (outlier of station 0+67 omitted). 71
Table 4-7. Results of unpaired *t* test comparing the mean *k* value of remolded flexible wall tests at each effective stress. 71
Table 4-8. Results of rigid wall oedometer *k* tests on remolded samples. 72
Table 4-9. Results of rigid wall oedomter *k* tests on undisturbed samples. 72
Table 4-10. Results of large-scale rigid-wall *k* tests on remolded specimens (effective stressed calculated from applied loads). 74
Table 4-11. Final moisture content profile of remolded large-scale rigid wall *k* test from station 1+30. 75
Table 4-12. Summary of slug test results, with *k* values calculated using Britton et al. (2005) well shape factors (S_B = -0.0295 cm). 76
Table 4-13. Comparison of rate of fall versus rate of rise slug tests for each well. 80
Table 4-14. Comparison of average *k* values from slug tests at each well based on shape factors determined from Hvorslev 1951 (k_H), Britton et al. 2005 (k_B and k_{BF}), Zlotnik et al. 2010 (k_Z), Lim et al. 2014 (k_L and k_{LF}), and Bouwer and Rice 1986 (k_{BR}) based on the shape factors given in 82
Table 4-15. Average *k* values and slopes *m* from each well as calculated by assuming a static equilibrium water level (H_{wt}) and by adjusting the H_{wt} to account for fluctuations. ... 84

LIST OF FIGURES

Figure 1-1 Construction of a soil-bentonite cutoff wall (from Lagrega et al. 1994) 3
Figure 2-1. Schematic of load transfer of SB backfill to trench sidewalls (from Ruffing 2009). 7
Figure 2-2. Arching model predictions of vertical effective stress with depth in a cutoff wall (width = 0.75 m; water table depth = 2 m; friction angle of adjacent soil = 39 degrees) for different assumed values of cohesion (c) (from Evans et al. 1995). 7
Figure 2-3 Stages of sidewall movement during construction and consolidation of a SB cutoff wall (from Ruffing et al. 2010). 8
Figure 2-4 Horizontal effective stress distributions in SB cutoff wall (B = 1 m) predicted by arching, lateral squeezing, modified lateral squeezing, and geostatic models assuming groundwater to the ground surface (from Ruffing 2009). 8
Figure 2-5. Effective stress vs. k for SB backfill (from Evans et al. 2016) 10
Figure 2-6. Influence of native fines content and dry bentonite content on hydraulic conductivity of SB backfill at 96 kPa effective stress (from Evans and Huang 2016). 10
Figure 2-7. Schematics of SBTF dimensions in side (A) and cross (B) sections (from Britton et al. 2004). 11
Figure 2-8. (a) Influence of sample volume on backfill hydraulic conductivity, k_{sb}, and (b) equivalent hydraulic conductivity, k_{eq}, of the wall (backfill plus filter cakes) assuming intact filter cakes on the trench sidewalls (from Britton 2001). 13
Figure 2-9. Schematic illustration of slug test geometry and variables (from Britton et al. 2005b). 15
Figure 2-10. Chart solution for A and B values as inputs to Equation 6 (from Bouwer and Rice 1976). 16
Figure 2-11 Chart solution to determine well shape factor F (from Britton et al. 2005b). ... 17
Figure 2-12. Comparison of k obtained from CPTU and Laboratory methods in three studies. (from Takai et al. 2016) 21
Figure 3-1. (a) Index map of site location; (b) aerial photo showing the relative proximity of the cutoff wall to the Bucknell University campus; (c) aerial photo of the portion of the quarry where the cutoff wall was constructed; (d) expanded aerial view of Montandon site with wall alignment, instrumentation, and adjacent land use information. 25
Figure 3-2. (a) Cutoff wall alignment with locations of exploratory soil borings, monitoring wells, inclinometers, earth pressure cages, and settlement plates; (b) section of wall from 0+30 to 1+23 m expanded to show instrumentation. 26
Figure 3-3. Conceptual model soil profile along the cutoff wall alignment based on soil characterization at locations of borings, monitoring wells, and inclinometers. 27
Figure 3-4. Subsurface profile based on materials encountered during excavation. 28
Figure 3-5. Cutoff wall backfill profile based on trench soundings collected over 24-hour period from 7/15/16 (7 AM) to 7/16/16 (7 AM). 29
Figure 3-6. Schematic of earth pressure cage assembly on braced frame keyed into underlying clay (left) and photograph of earth pressure cage (right) (photograph from RST Instruments, Maple Ridge, BC, Canada). 32
Figure 3-7. Cross section of Montandon SB wall with locations of sample collection for index testing. 34

Figure 3-8. Grain size distributions of base soil and backfill samples collected during and after construction. Legend indicates the stations where the backfill samples were collected. 34
Figure 3-9. Correlation between measured standard slump and calculated standard slump for Montandon SB backfill. 36
Figure 3-10. Results of total stress and pore pressure monitoring in the backfill at earth pressure cage locations (station 0+84 m); σ_x = horizontal (transverse) total stress; σ_y = horizontal (longitudinal) total stress; σ_z = vertical total stress; u = pore water pressure. 37
Fig. 3-11. Distributions of total stress (σ) and pore water pressure (μ) measured at station 0+84 m immediately after construction (t = 0) and at 60, 120, 356, and 575 days after construction. 38
Figure 3-12a,b,c. Distributions of effective stress (σ') measured at station 0+84 m immediately after construction (t = 0) and at 60, 120, 365, and 575 days after construction. 39
Figure 3-13. Effective stress measurements in the horizontal (transverse), horizontal (longitudinal), vertical directions during the first 20 months after construction. 40
Figure 3-14. Vertical settlement over time measured at the surface at four locations along the wall alignment. 41
Figure 3-15. a,b) Inclinometer surveys at Station 0+30 m on the west (left), and east (right) side of the Montandon SB wall; c,d) Station 0+60 m. 42
Figure 3-16. Total displacement 575 days after construction at various depths for each inclinometer on a) west side of wall and b) east side of wall. 44
Figure 3-17. Total lateral consolidation measured as strain for various depths at a) Station 0+60 and b) Station 0+90 45
Figure 3-18. Total average lateral consolidation measured as displacement from Stations 0+60 and 0+90 at various depths. 46
Figure 3-19. Average strain measured vertically (surface) and horizontally (various depths) between Stations 0+60 and 0+90. 47
Figure 3-20. Difference in water elevation (m) across Montandon SB wall (east side-west side) over 22 months. 47
Figure 4-1. Cross-section of Montandon SB wall showing the location of sample collection for laboratory k tests and test location of in-situ k tests. The symbols located above the ground surface represent tests conducted on remolded specimens prepared from surface grab samples, whereas the symbols located below the ground surface represent in situ (slug) tests or undisturbed sample locations. 52
Figure 4-2. Schematic of flexible-wall apparatus used to measure k of SB samples (from Malusis et al. 2009). 52
Figure 4-3. Schematic of mechanical piston sampler (from Chung et al. 2014). 53
Figure 4-4. Schematic of rigid wall consolidation cell used for falling head constant tail water k test (from Barben 2008). 54
Figure 4-5. Schematic of large-scale rigid-wall permeameter used to measure k of remolded backfill specimens in the laboratory. 56
Figure 4-6. Photographs of (left) prepacked screen section attached to PVC standpipe next to casing pushed into the Montandon SB wall centerline, (right) inserting the piezometer assembly into the casing (Photo credit James Gutelius 2017). 58

Figure 4-7. Schematic of prepacked slug test well cluster (right) with exploded diagram of prepacked screen assembly (left) with standpipe and screen dimensions (not to scale). 59
Figure 4-8. Example slug test data for test well at Station 0+56.2 (depth = 4.5 m): (a) measured pressure heads versus time; (b) semi-log plot of normalized slug height (H_s/H_{so}) versus time. 61
Figure 4-9. Chart solution to determine well shape factor, F, according to Britton et al. (2005). The triangle represents the geometry present in the Montandon SB wall slug test wells (from Britton et al. 2005). 62
Figure 4-10. Shape factor *S* as calculated from different methods. 64
Figure 4-11. Plot of remolded flexible-wall *k* values including duplicate tests from selected locations. Base soil specimens with no bentonite are plotted left of station 0+00. 65
Figure 4-12. Plot of *k* versus the slump of the remolded sample as measured in the laboratory. 66
Figure 4-13. Plot of *k* versus void ratio (*e*) of the specimen. 67
Figure 4-14. Plot of *k* versus fines content and clay content (effective stress= 13.8 kPa). 67
Figure 4-15. Plot of undisturbed flexible wall test *k* values. At Station 1+10 and 1+17 samples were collected from multiple depths. The data at these locations is plotted left (shallow) to right (deep) as if they were next to each other along the wall alignment so the data points are visible. 70
Figure 4-16. Laboratory results of *k* for remolded and undisturbed flexible-wall test specimens. 70
Figure 4-17. Plot of rigid wall oedometer *k* tests of remolded samples, base soil samples are plotted left of station 0+00. Station 0+90 undisturbed samples are also plotted next to 0+90 remolded results. 73
Figure 4-18. Plot of oedometer *k* values from remolded and undisturbed samples versus effective stress. 73
Figure 4-19. Plot of large-scale rigid wall *k* test results of remolded samples from each location. 74
Figure 4-20. Plot of large-scale rigid wall *k* values from remolded samples versus effective stress. Effective stress is estimated from the final void ratio *e* and also calculated from the load applied to the sample neglecting load transfer from the backfill to the sidewall of the apparatus. 75
Figure 4-21. Slug test *k* values for each well location computed using shape factor S_B from Britton et al. (2005). Average *k* values for all tests performed in each well are shown with markers; error bars represent the maximum and minimum *k* values obtained in each well. 77
Figure 4-22. Plot showing average, highest, and lowest water depth in monitoring wells adjacent to Montandon SB wall. 78
Figure 4-23. Plot of *k* from slug tests versus average effective stress. Markers denote the average *k* for all tests performed in each well, and error bars show likely range of effective stress present at the **in-situ test location.** 79
Figure 4-24. Plot of rate-of-rise *k* versus rate-of-fall *k*. 80
Figure 4-25. Plot of *k* versus the initial slug height for each slug test performed in the Montandon SB wall. 81
Figure 4-26. Comparison of the influence of different methods of estimating *S* on *k*. 83

Figure 4-27. Plot of *k* values calculated from assuming a static regional water level versus *k* values calculated by adjusting H_{wt} hourly to reflect fluctuations in the regional water level. 85
Figure 4-28. Plots of *k* versus effective stress for the different test types employed in the study: (a) flexible-wall tests; (b) rigid-wall (oedometer) tests, (c) large-scale rigid wall tests; and (d) slug tests. Vertical error bars for remolded specimens and slug tests represent maximum and minimum *k* values measured at the given stress (the symbols represent the average k). Horizontal error bars in the slug tests represent the maximum and minimum mean effective stresses measured by the embedded pressure sensors at 0+84 m at the same depth as the middle of the slug test screen. 86
Figure 4-29. (a) Combined plot of *k* versus effective stress including all test methods and specimen types. (b) Combined plot of average *k* versus effective stress including all test methods with trend line representing all methods. 87
Figure 4-30. Plot of moisture content versus depth in the Montandon SB wall. Sample collection dates are: 0+31 6/12/18, 0+90 6/60/17, 1+10 10/20/17, 1+17 4/20/18. 88
Figure 4-31. Plot of (a) flexible wall *k* test results from undisturbed samples as function of depth, (b) in-situ **slug test results as function of depth.** 90
Figure 4-32. Plot of *k* versus location along the Montandon SB wall from all methods at comparable effective stresses. 91

ABSTRACT

Soil-bentonite (SB) cutoff walls are commonly employed in the US to control groundwater flow and subsurface contaminant migration. In these applications, both the short-term (as built) integrity of the barrier and the potential for degradation in the integrity of the barrier over time are of critical importance. Although many laboratory studies have been conducted to investigate the performance of SB cutoff walls as hydraulic barriers and the various factors affecting this performance, field investigations are scarce. With support from the National Science Foundation, a 200 m long, 7 m deep, and 0.9 m wide SB cutoff wall has been designed, constructed, and instrumented to serve as a long-term field research site for investigating the in-situ properties and behavior of SB backfill.

This thesis study investigates the properties of this full scale SB cutoff wall, focusing on the hydraulic conductivity *(k)* of the wall based on backfill samples collected during construction, undisturbed samples collected after construction, and in-situ *k* measurements performed in the two years following construction. In-situ consolidation and stress measurements are presented along with groundwater monitoring data showing the performance of the wall as a hydraulic barrier for the time period from wall construction up to 20 months after construction.

SB backfill *k* was measured using flexible-wall tests (70-mm diameter) on remolded specimens prepared from surface grab samples collected during construction; flexible-wall tests on undisturbed specimens collected from the wall after construction; small rigid-wall (oedometer) tests (64-mm diameter) on remolded samples prepared from grab samples and undisturbed samples; larger-scale rigid-wall tests (150-mm diameter) on remolded specimens prepared from grab samples; and slug tests conducted within the wall at various locations and depths. Applied effective stresses in the laboratory tests primarily ranged from 1-35 kPa, encompassing the range of in-situ stresses (7-15 kPa) measured in the wall backfill after load transfer and consolidation occurred.

The results indicate low spatial variability in *k* for a given test type, consistent with the observed homogeneity of the backfill. Modest variability in *k* was observed among the different test types, with the slug tests and large rigid-wall tests generally yielding slightly higher *k* relative to the flexible-wall and small rigid-wall tests at representative stress (i.e., measured field effective stress compared to similar laboratory effective stress). Measuring in-situ *k* with the single well slug test is shown to be a viable method that is capable of assessing the longevity in performance of the wall. Several methods of interpreting slug test data are compared and analyzed for practical use.

The results also indicate that the range of in-situ *k* measurements is slightly lower than the range of *k* for remolded flexible-wall specimens tested at similar effective stresses to those observed in the wall. Variability of the in-situ *k* was greater than variability in *k* of the remolded or undisturbed specimens tested in the laboratory. In-situ measurements indicate that *k* decreases with depth, the unsaturated region in the upper wall has the highest *k* and variability of *k*. Adjacent monitoring well readings show high performance of the wall in defect free portions with a solid key, while areas with known defects and a poor key show little difference in the water level across the wall.

1 INTRODUCTION

Subsurface vertical barriers (cutoff walls) are often used to prevent or control subsurface flow of water and contaminants. The most common type of cutoff wall is a slurry trench cutoff wall (often referred to as a 'slurry wall'), which utilizes bentonite slurry to support the open trench excavation and to create the backfill that serves as the final barrier material. This technology has been employed around the world, and thousands of such structures have been constructed in the United States.

There are different materials available to construct a cutoff wall; soil-bentonite, cement-bentonite, and soil-cement-bentonite mixes are the most common. The key material in all slurry trench cutoff walls is bentonite, specifically sodium bentonite, referring to the prevalent exchangeable cation in the clay's aluminosilicate structure. Sodium bentonite is a montmorillonite clay that can adsorb nearly 5 times its dry weight of water and swells to 12 to 15 times its dry volume when hydrated. The bentonite is mixed into water (~5% bentonite by mass) to create a slurry that is used for two purposes; 1) the bentonite-water slurry supports the trench excavation (hydraulic shoring) during construction enabling a thin trench to reach great depths without structural support, 2) the bentonite-water slurry is mixed with the soil or cement or both to create a homogenous backfill to fill the excavation, creating a permanent hydraulic barrier. Typical target values for the hydraulic conductivity of a cutoff wall are 10^{-6} or 10^{-7} cm/s.

In the United States, the most common material used for cutoff walls is soil-bentonite (SB). Ideally the material excavated from the trench is mixed with slurry to create the SB backfill. If the excavated material is not suitable for backfill (i.e., cobbles, gravel, stiff clay) a suitable imported material may be used for the SB base soil. Dry bentonite can be added to the base soil before mixing with slurry to achieve lower hydraulic conductivity. To create an effective subsurface barrier, the cutoff wall is typically keyed into an underlying layer of low hydraulic conductivity, such as bedrock or a clay aquitard.

The hydraulic conductivity *(k)* of a cutoff wall is the critical parameter in measuring the effectiveness of the barrier. Presently, methods of measuring *k* of cutoff walls typically involve collecting grab samples during construction and testing small-scale samples (diameter = 70-100 mm) in the laboratory. This method of quality assurance/quality control (QA/QC) is limited because the effective stress present within the wall is unknown, the small sample volume tested may not represent the variability present in the wall, and construction defects or post-construction changes in *k* are not detected. Applying the appropriate effective stress during laboratory testing is critical.

One method to measure the hydraulic conductivity of SB walls after construction is to collect undisturbed samples from the wall and test them in the laboratory. Successfully prepared test specimens of undisturbed SB material may provide a good representation of the field condition of the SB wall, provided that the specimens are tested under representative stress conditions and that the sample is not disturbed during collection or test preparation. Obtaining reasonably undisturbed samples of soft SB material is possible with a piston-type sampler in combination with a Shelby

tube, but difficult. Also, the process of obtaining such samples is intrusive and potentially disruptive to the wall. The performance of the SB wall as a hydraulic barrier could be compromised by drilling and sample collection. Preparing specimens for laboratory testing without further disturbance is also a challenge.

To understand the hydraulic conductivity of the wall as it exists in the field, a method to accurately and efficiently measure the in-situ hydraulic conductivity is sought. Monitoring wells installed adjacent to a cutoff wall can provide inferences of barrier performance based on measured head differences induced across the wall, but this approach does not provide direct measurements of *k*. Cost and space are also limitations. The idea of installing a piezometer well within a cutoff wall to measure *k* via slug testing was first proposed more than 30 years ago by Teeter and Clemence (1986) who revised the 'well shape factors' proposed by Bouwer and Rice (1976) specifically for the boundary conditions present in a cutoff wall. Although the in-wall slug test method and data interpretation methods have been available for over 30 years, very few field studies have been conducted to evaluate the efficacy of the method. For this and other reasons, slug testing has not been utilized by practitioners in the industry to evaluate in-situ *k* of cutoff walls. If owners, regulators, and contractors desire a cost-effective method to monitor the long-term performance of SB walls, installing piezometers within the wall and conducting slug tests may be an appealing option. However, additional research is warranted.

Researchers at Bucknell University have constructed and instrumented a 200-m-long, 7-m-deep, and 0.9-m-wide SB cutoff wall near Lewisburg, PA for the purpose of studying the SB properties, behavior, and variability at the field scale. The hydraulic conductivity of this wall is the focus of this study.

1.1 Background

Soil-bentonite (SB) cutoff walls have been used for nearly 50 years to prevent or control the flow of subsurface fluids. Studies of SB cutoff walls have provided an in-depth understanding of how and why they function. Fig. 1 illustrates SB cutoff wall construction. Typically SB cutoff walls are constructed in two phases, i.e., excavation and backfilling. The first phase involves excavation of the trench while simultaneously filling the excavation with bentonite-water slurry. The second phase involves mixing the trench spoils, or some other suitable soil, with the bentonite-water slurry to create homogenous backfill that behaves as a thick viscous liquid. This SB backfill is placed in the trench, displacing the slurry. After construction, the trench is typically covered by placing a geotextile across the top of the wall and adjacent soil, then covering the geotextile with ~0.5 m of topsoil.

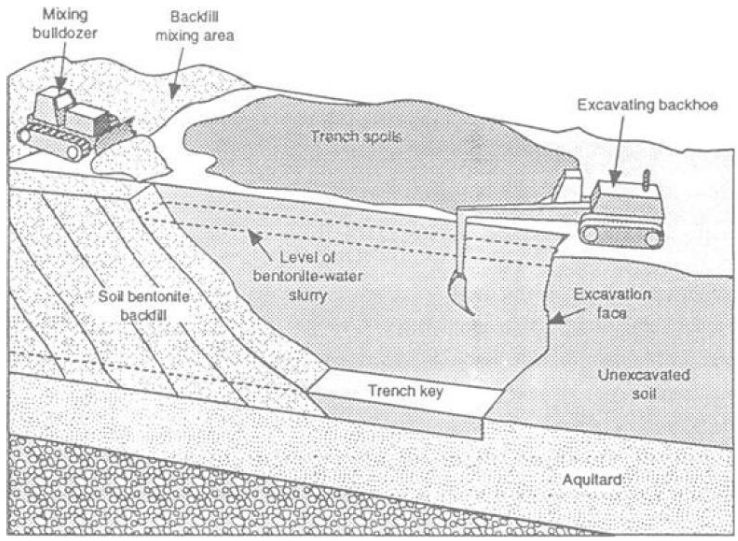


Figure 1-1 Construction of a soil-bentonite cutoff wall (from Lagrega et al. 1994)

Several studies regarding the in-situ stress within SB walls have provided models to estimate the in-situ stress, which is far less than a geostatic stress distribution (Evans et al. 1995, Filz 1996, Ruffing 2009). The hydraulic conductivity of SB backfill is stress dependent; the greater the consolidation pressure (effective stress), the lower the hydraulic conductivity (Evans 1994, Evans et al. 1995, Filz 1996, Ruffing et al. 2010, Evans et al. 2016, Malusis et al. 2017). The stress state within an SB wall varies with time, depth, location, and orientation in three-dimensional space. This variation in stress contributes to variation in void space, hence variation in the hydraulic conductivity of the SB backfill at the field scale.

During the summer of 2016, a full-scale SB cutoff wall was constructed adjacent to the Montandon Marsh near Lewisburg, PA for the sole purpose of performing short- and long-term research on the post-construction properties and behavior of the wall. Access is readily available and experimental limitations are few. The as-built dimensions of the wall are 200 m in length, up to 7.1 m in depth, and nominally 0.9 m in width. The wall is instrumented to measure strain (consolidation), stress, pore pressure, and the adjacent phreatic surfaces. The strain is measured in two dimensions, i.e., laterally (by inclinometers installed adjacent to the wall on both sides) and vertically (with settlement plates installed on the backfill surface). The phreatic surface on each side of the wall is measured with five pairs of monitoring wells (ten total), distributed on each side of the wall at a longitudinal spacing of 30 m to gain an understanding of the hydraulic gradient across the wall at each location, and to monitor the local hydrologic conditions. Stresses in the wall are measured in three dimensions at four locations with earth pressure cages embedded in the backfill. The wall instrumentation provides the unique opportunity to correlate in-situ test measurements with actual pore pressure and stress measurements in real time.

1.2 Thesis Study Objectives

The overall goal of this thesis is aimed toward better understanding how SB cutoff walls perform in the field after construction. Hydraulic conductivity, *k*, is the critical property of SB cutoff walls, and therefore this study focused on backfill *k*. The experiments conducted herein establish the relationship between *k* of this specific SB backfill and the effective stress measured in the wall. The general relationship between *k* and the consolidation pressure (effective stress) is well established; as the consolidation pressure increases, *k* decreases. Therefore, measuring *k* under applied stresses representative of the field conditions is important. In previous studies, the range of consolidation pressures used for measuring *k* of SB backfill in the laboratory is 5-1,050 kPa (Britton et al. 2004, Yeo et al. 2005, Ruffing and Evans 2010, Evans and Huang 2016, Evans et al. 2016). However, these prior studies lack adequate measurements of *k* for SB consolidated at very low effective stress (≤18 kPa). As will be shown in Chapter 3, the effective stresses measured within the Montandon SB wall are very low (<18 kPa) and expected to remain very low for the foreseeable future.

In accordance with the overall research goal described above, the specific objectives of the thesis were as follows:

Objective 1: The first objective of this study was to investigate the variability in *k* of the field-mixed backfill based on laboratory testing of specimens prepared from remolded and undisturbed samples. Surface grab samples of the field-mixed backfill were collected during construction at 20 locations along the wall alignment (i.e., at 10-m intervals). The grab samples were characterized for geotechnical index properties (i.e., gradation, plasticity, and slump) and subsequently used to prepare remolded specimens for laboratory *k* testing. After construction, undisturbed backfill samples were collected at selected locations and depths within the wall using Shelby tubes, in combination with a piston sampler. These samples were used to prepare undisturbed specimens for *k* testing. Laboratory tests to measure *k* included "flexible-wall tests" and "rigid-wall tests." Applied effective stresses in the *k* tests ranged from 1.2 to 84 kPa, encompassing (but extending beyond) the range of effective stresses measured in the wall.

Objective 2: The second objective of this study was to evaluate the utility of slug tests for measuring the in-situ *k* of SB cutoff walls. To achieve this objective, 12 piezometer wells were installed within the wall, at selected depths and locations, and slug tests were conducted multiple times for each well (3 or more tests in each well, 48 slug tests conducted in total). Several different factors that potentially influence the outcome of a slug test were considered. These include the method used to create the slug (i.e., adding water versus removing water), the effect of barometric pressure fluctuations, the effect of local groundwater fluctuations, and the method used to interpret the slug test data and determine *k*. Several different methods previously developed to interpret data from slug tests were assessed in this study.

Objective 3: The third objective in this study was to compare the results of the laboratory and in-situ *k* tests to assess differences among the laboratory and in-situ data sets and to elucidate the best practices for measuring *k* of SB walls. Differences in *k* obtained from different test methods were

evaluated for statistical significance using unpaired t-tests, and the results were used to determine the sensitivity of backfill *k* to differences in backfill properties (such as gradation and slump), applied stress, test type, specimen type (i.e., undisturbed versus remolded), and sample volume.

This thesis is organized into four chapters. Chapter 1 is an introduction and describes the Thesis study objectives. Chapter 2 contains a literature review detailing the relevant research that has been published pertaining to the aforementioned objectives. Chapter 3 contains a complete background of the Montandon SB cutoff wall research site and includes a detailed description of the construction and instrumentation. Chapter 3 also presents results of index testing, stress measurements from within the wall, results from consolidation measurements, and data from the adjacent monitoring wells. Chapter 4 includes a thorough description of the methods and materials used to measure *k* throughout the study. The results of *k* measurements are presented and compared. Chapter 5 contains the conclusions and recommendations that resulted from the study and includes a discussion of the limitations of the study and topics for future work. The appendices which follow include tabulated raw data and graphs for each test conducted.

2 LITERATURE REVIEW

This section explains concepts pertinent to the research objectives by examining previous research and published literature. Many topics relating to soil-bentonite cutoff walls have been studied in depth, including studies of the hydraulic conductivity of SB. This literature review includes many of the critical studies that have established the foundation of knowledge regarding the behavior and properties of slurry walls, SB, and slug testing. The relevant body of literature for this thesis includes prior research into the field state of stress in SB walls and the mechanisms governing the state of stress, experimental studies to investigate the influence of stress and other factors (e.g., gradation, bentonite content) on the hydraulic conductivity of SB backfill, the results of previous field studies on SB walls, and studies describing the various field and laboratory test methods available for measuring *k* of SB walls. These topics are discussed in detail below.

2.1 The State of Stress in Soil-Bentonite Cutoff Walls

As stated previously, effective stress is a critical factor controlling the hydraulic conductivity of a SB cutoff walls (Evans 1993). The effective stress within a wall is believed to increase with depth at a rate less than the presumed geostatic stress distribution as defined by the product of the depth and the backfill unit weight (Evans et al. 1995, Filz et al. 1996, Ruffing et al. 2009). In-situ testing of strength parameters (CPT, DMT, vane shear) can provide inferences about the in-situ stress state, and strength parameters can be used to indirectly estimate stress (Ruffing et al. 2015). Hydraulic fracture tests have been used to estimate the in-situ effective stress (Britton 2001). Direct measurements of in-situ stress are possible by placing pressure sensors in the backfill, but such attempts are not discussed in the literature reviewed.

Three theoretical models have been proposed to explain the mechanisms responsible for low stresses in SB cutoff walls. The first model, known as the ‘arching model’, was first proposed by Evans et al. (1995) and is based on Terzaghi’s solutions for the overburden pressure on a buried pipe in a narrow trench. The arching model accounts for load transfer of the SB backfill to the trench sidewalls due to interfacial friction, which reduces the stress within the backfill. Figure 2-1 is a force diagram of the load transfer mechanism. As a result, the arching model predicts the vertical effective stress to be low, increasing with depth at a rate far less than geostatic and quickly reaching a maximum value that remains essentially constant with depth. Figure 2-2 contains the results of a parametric study with examples of vertical stress distributions predicted by the arching model, assuming typical parameters and varying the cohesion (c) of the backfill. The results indicate that the vertical effective stresses predicted by the arching model are much lower than geostatic and reach a maximum (in this case, approximately 20 to 35 kPa, depending upon c) at a depth of ~5 m.

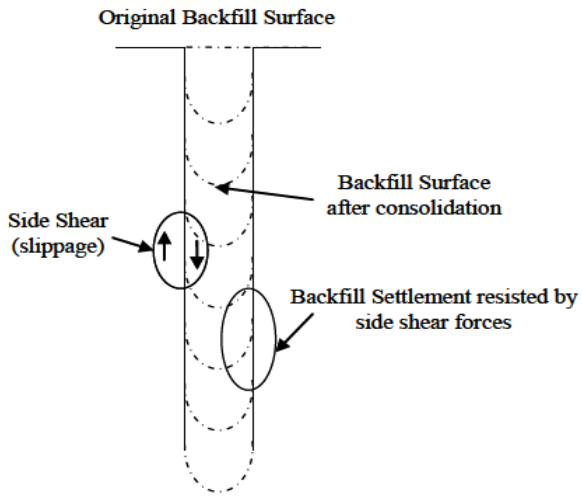


Figure 2-1. Schematic of load transfer of SB backfill to trench sidewalls (from Ruffing 2009).

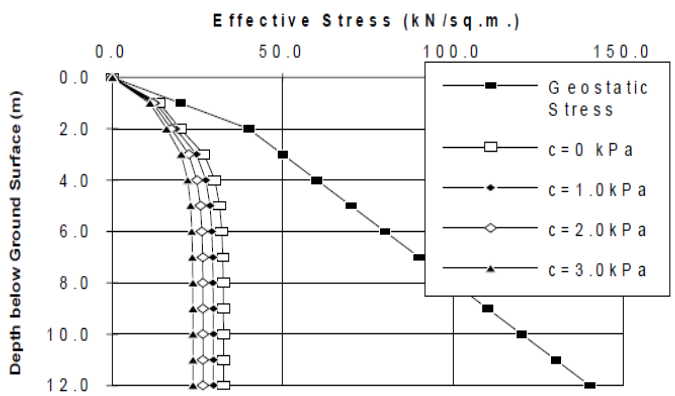


Figure 2-2. Arching model predictions of vertical effective stress with depth in a cutoff wall (width = 0.75 m; water table depth = 2 m; friction angle of adjacent soil = 39 degrees) for different assumed values of cohesion (c) (from Evans et al. 1995).

One potential limitation of the arching model is that the model assumes the trench sidewalls to be perfectly rigid with no creep inward toward the trench centerline. Filz (1996) proposed that inward displacement of the sidewalls into the trench (i.e., lateral squeezing of the backfill) must occur after backfilling, especially in very deep walls. Thus, Filz (1996) developed the second model for predicting stress in an SB wall, known as the 'lateral squeezing model' (LSM), which estimates effective stress in the horizontal direction within SB walls. Figure 2-3 illustrates the sidewall deformation proposed in the LSM. The inward lateral deflection after backfilling causes the horizontal effective stress in the backfill to increase, maintaining stress equilibrium (Ruffing 2009). Like the arching model, the LSM predicts that the horizontal effective stresses that develop with depth in SB are lower than those obtained by assuming a geostatic stress distribution. However, unlike the arching model, the predicted effective stress continues to increase (gradually) with increasing depth.

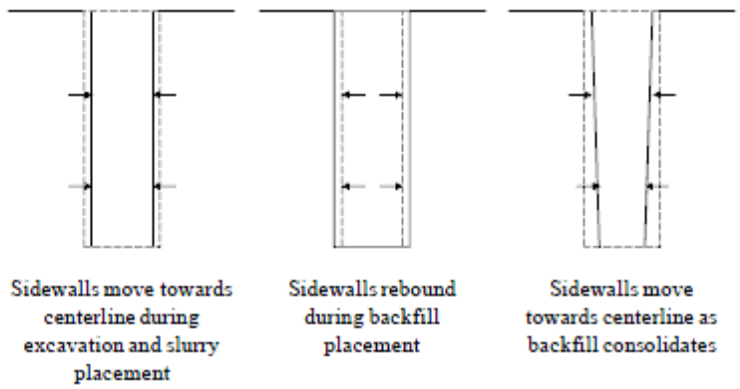


Figure 2-3 Stages of sidewall movement during construction and consolidation of a SB cutoff wall (from Ruffing et al. 2010).

The LSM requires a single value for the constrained modulus (D_s), which represents the slope of the relationship between void ratio (e) and effective stress (σ') as determined from a laboratory consolidation test. Since the relationship between e and σ' is not linear over a range of effective stress, choosing a single value for D_s is a limitation of the LSM. To address this limitation, Ruffing (2009) developed the 'modified lateral squeezing model' (MLSM) which accounts for the variation in D_s with effective stress. Comparison of the three models illustrates that they all predict effective stresses less than geostatic, as illustrated in Figure 2-4. However, stresses predicted by the lateral squeezing models (LS and MLS) are substantially higher than the stresses predicted by the arching model beyond a depth of approximately 2 m.

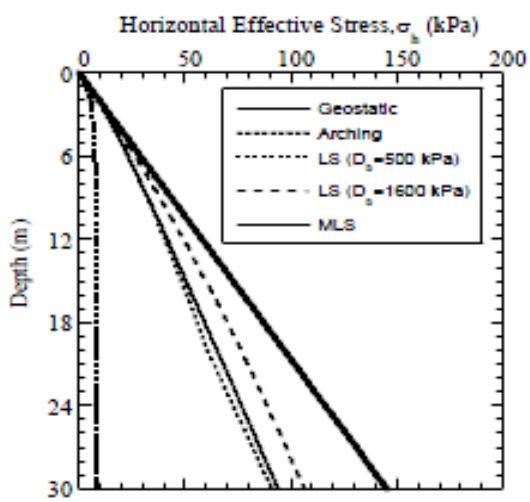


Figure 2-4 Horizontal effective stress distributions in SB cutoff wall (B = 1 m) predicted by arching, lateral squeezing, modified lateral squeezing, and geostatic models assuming groundwater to the ground surface (from Ruffing 2009).

Because SB backfill is very soft and behaves as a viscous liquid at the time of placement, the initial shear strength is essentially nil. As time elapses and the backfill consolidates due to self-weight and lateral squeezing, the backfill is expected to gain strength proportional to the increase in effective stress. Thus, measurements of backfill shear strength can be used to infer the effective

stress. Marchetti Dilatometer (DMT), Vane Shear Testing (VST), and Cone Penetration Testing (CPT) are three methods available to estimate the in-situ shear strength of SB backfill in the horizontal axis (Ruffing 2009). Ruffing et al. (2011) provides an example of how DMT testing can be used to estimate the in-situ effective stress in the horizontal axis both longitudinally and transversely. The effective stresses estimated by Ruffing et al. (2011) from DMT test results were in reasonable agreement with estimates obtained from the MLSM. Also, Ruffing et al. (2015) used CPT data from a very deep wall in Mayfield NSW, Australia to estimate effective stress. The results of Ruffing et al. (2015) concluded low effective stress in the SB backfill, far less than geostatic, although a modest increase was noted beyond 20 m deep. However, estimating effective stress from in-situ strength measurements is very different from making direct measurements of stress within the wall. There are no previous studies in which the vertical stresses in an SB wall were directly measured, and any study in which the horizontal stress was measured is not discussed in the literature reviewed.

2.2 Hydraulic Conductivity of Soil-Bentonite Backfill

Hydraulic conductivity is the key property that dominates the effectiveness and performance of cutoff walls. The hydraulic conductivity of SB has been studied extensively in the laboratory, and to a far lesser degree in-situ. Effective stress controls the void ratio in soil and the void ratio impacts the tortuosity of the pathways for water flow. This relationship between effective stress, void ratio, and hydraulic conductivity is critical and has been investigated in many studies on SB backfill (Evans 1994, Yeo et al. 2005, Ruffing and Evans 2010, Evans et al. 2016). However, the rate of decrease in k with increasing stress is unclear at very low effective stresses. Although previous hydraulic conductivity tests on SB mixtures have been conducted using a wide range of effective stresses (8 to 200 kPa, or 1.2 psi to 30 psi; see Britton et al. 2004, Yeo et al. 2005, Malusis et al. 2009, Malusis and Mckeehan 2013, Evans et al. 2016, Replogle and Malusis 2017), the vast majority of these tests were conducted at effective stresses in excess of 20 kPa. The results from Evans et al. (2016) in Figure 2-5 illustrate the trend of k with change in effective stress over the range of 20-900 kPa with variation in the fines content of the base soil. However, k tests effective stress in the range of 5-20 kPa requires more investigation. This is important because this low range of effective stress is likely prevalent in SB walls based on the aforementioned theoretical studies (see Section 2.2).

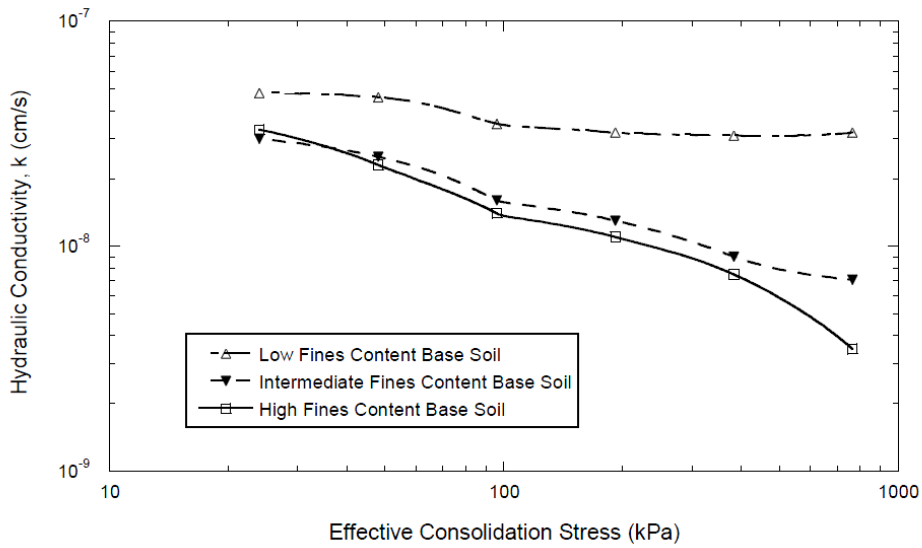


Figure 2-5. Effective stress vs. *k* for SB backfill (from Evans et al. 2016)

In addition to effective stress, several other factors may affect the hydraulic conductivity of SB backfill, including gradation (fines content), bentonite content, scale of sample volume tested, and slump at the time of placement (Filz et al. 2003, Britton et al. 2005b, Evans et al 2016). For example, Figure 2-6 elucidates the relationship between *k* and base soil fines content with varying dry bentonite content added to the base soil. The applied effective stress in these tests was 96 kPa, at this stress the backfill containing 0% dry bentonite and ~40 % native fines exhibited $k < 10^{-7}$ cm/s. For specimens containing 1, 3, or 5 % dry bentonite, a modest decrease in *k* with increasing fines content is evident.

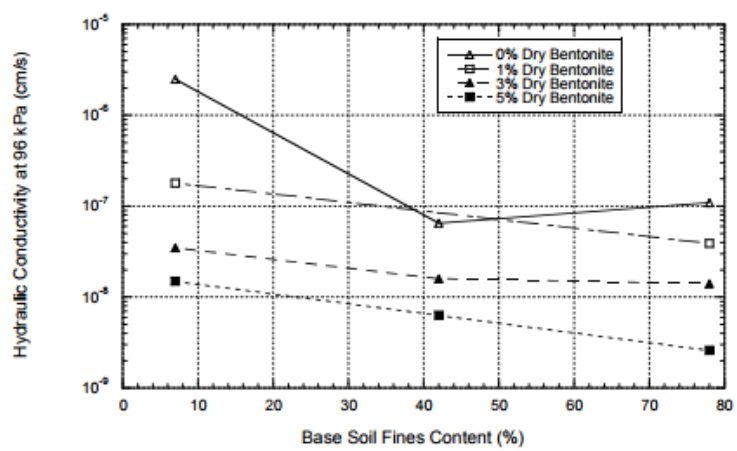


Figure 2-6. Influence of native fines content and dry bentonite content on hydraulic conductivity of SB backfill at 96 kPa effective stress (from Evans and Huang 2016).

Variability of *k* within a cutoff wall has been shown to greatly affect the performance of the wall, especially in a circumferential cutoff wall with an inward gradient. Ideally, the backfill is perfectly homogenous with the same *k* throughout the wall. In practice, the *k* of backfill varies with location

and depth. Potential sources of variability in *k* include variability of the backfill mix prior to placement, defects that occur during construction, and post-construction changes in the wall (Britton et al. 2005a). The base soil used to mix SB backfill will likely vary during construction as the trench excavation encounters varying subsurface materials, or imported base soil may change in gradation. The bentonite content also may vary due to imperfect mixing or slurry changes. Britton et al. (2005a) addressed the issue of variability of *k* in SB cutoff walls and the effect the variability of *k* has on contaminant transport (i.e., solute mass flux). The steady-state solute flux through a cutoff wall without variability in *k* is low and predictable. However, when variability exists in the cutoff wall, the average *k* for the wall will likely be higher than the *k* measured in the laboratory from grab samples. For the case where an inward hydraulic gradient is maintained (e.g., a circumferential cutoff wall with pumping from the center), the diffusive flux of contaminants may overcome the inward advective flow in regions of low *k* because most of the flow through the wall occurs through the regions with higher *k*.

Britton et al. (2005) concludes with the argument for "systematic investigations" into the variability of *k* in a full-scale SB wall. Research of full scale SB cutoff walls is limited and a method to measure *k* in-situ has not yet been assessed in a full scale SB wall.

2.3 Comparison of *k* Values From Various Test Methods

Researchers at Virginia Polytechnic Institute and State University constructed pilot-scale SB walls at their subsurface barrier test facility (SBTF) and studied the hydraulic conductivity with in-situ and laboratory methods. The schematics shown in Figure 2-7 depict the SBTF geometry and dimensions. The SBTF is a concrete basin with dimensions 2.8 m deep, 1.8 m wide, 3.0 m long at full depth with the bottom sloping up to the surface (3:1) for a total length of 20.4 m. The concrete walls of the basin were coated with penetrating waterproof sealer and water stops installed at all construction joints, and a compacted clay liner along the bottom of the basin serves as an aquitard for the key. Details regarding the SBTF are described in Filz et al. (1998).

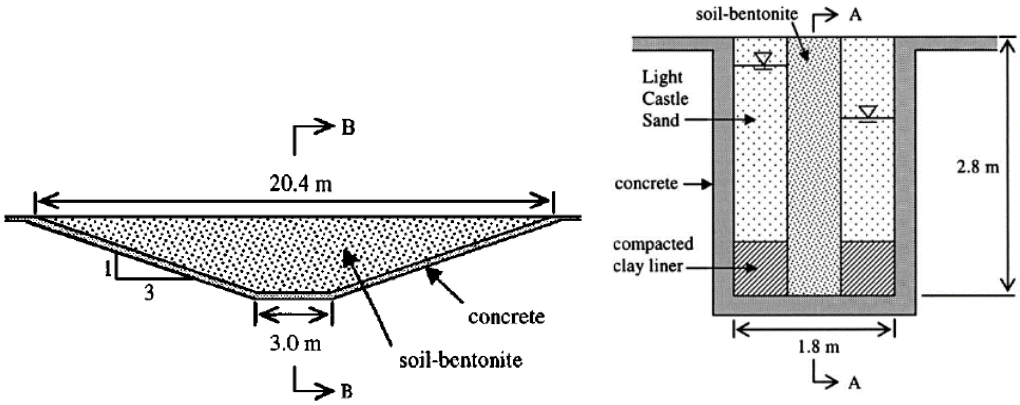


Figure 2-7. Schematics of SBTF dimensions in side (A) and cross (B) sections (from Britton et al. 2004).

The study by Britton et al. (2004) presents the methods used to measure *k* within the pilot scale SB cutoff walls constructed at the SBTF. The methods include in-situ piezometers, global measurements, and falling head *k* tests on undisturbed samples collected from the wall. The details of these methods are described in Britton et al. (2004) and Britton (2001). Results of each test method are shown in Figure 2-8. A general increase in *k* with sample volume is noted based on the average of measurements for each test type, which is consistent with previous studies on compacted clay liners (Daniel 1984, Shackelford and Javed 1991, Benson et al. 1997). The lowest *k* values were measured for the remolded specimens in the API tests, whereas progressively higher average *k* values were measured in the undisturbed laboratory tests and the slug tests. The global measurements resulted in the highest average *k*. Britton et al. (2004) attributed the generally lower *k* values in the API tests to remolding of the sample (rodding) during test preparation and more homogenous bentonite content throughout the sample. However, considering the overlap in the ranges of *k* for the different test types, it is unclear if the differences in *k* among the different test types are statistically significant. A review of Britton (2001) indicates that the data were not analyzed for statistical significance of differences in *k*. Britton et al. (2004) noted the lack of defects and the homogenous backfill in the small SBTF test walls, and suggested that larger walls with more variability or defects would likely exhibit a steeper increase in *k* with the much larger sample volume of a full scale cutoff wall.

One interesting detail of the study by Britton (2001) is that filter cakes were observed to be present "everywhere on both trench faces" (with thicknesses of about 5 mm) when deconstructing the SBTF. The effects of both the backfill and the adjacent filter cakes were considered when calculating the equivalent *k* (k_{eq}) of the backfill shown in Figure 2-8(b), which is lower than the *k* for the backfill alone (k_{sb}) shown in Figure 2-8(a). Britton et al. (2004) conducted hydraulic fracture tests which showed that the hydraulic pressure required to fracture the backfill was very small (2.3 kPa) and corresponded closely to the vertical effective stress estimated using the arching model (Evans et al. 1995).

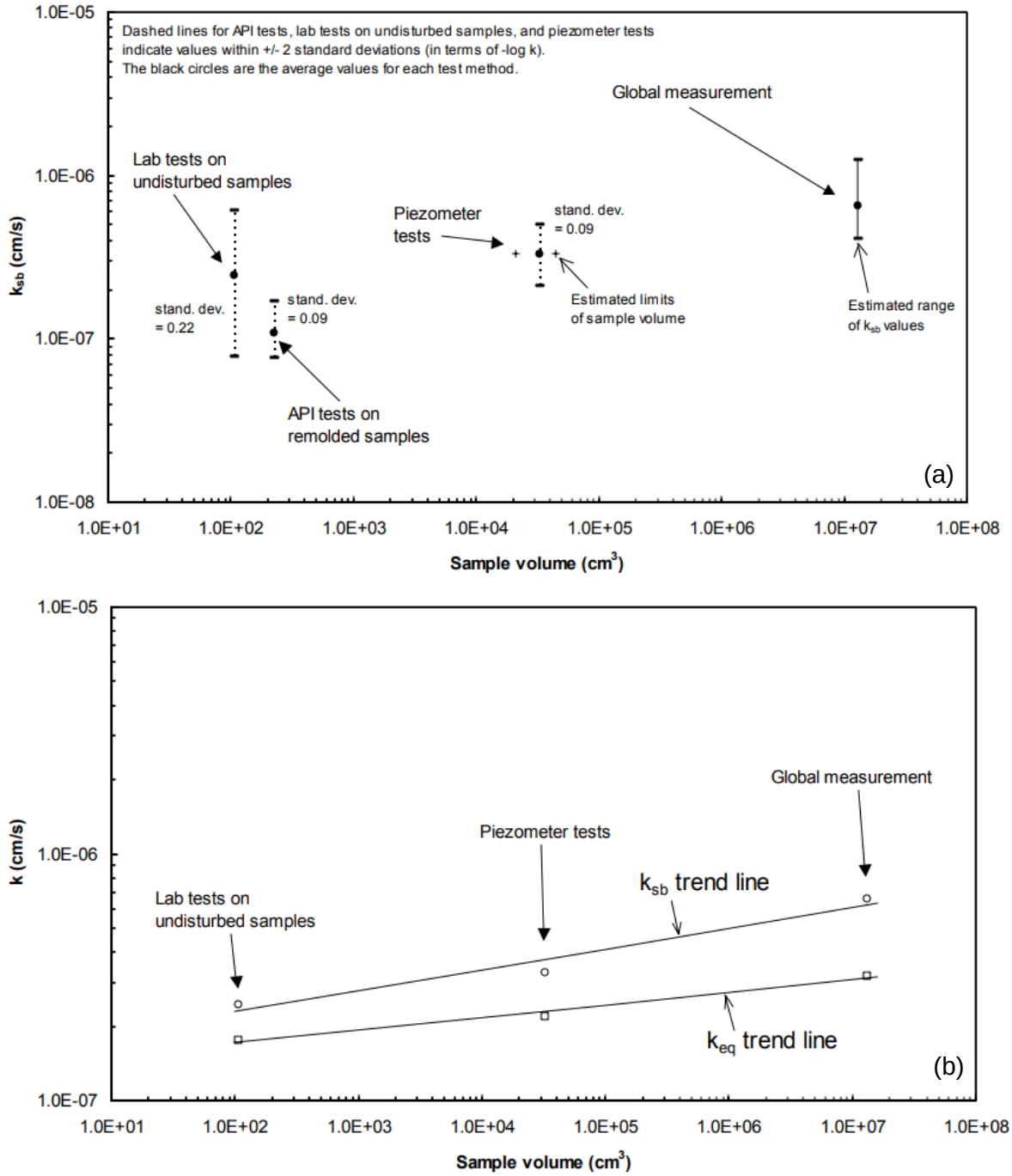


Figure 2-8. (a) Influence of sample volume on backfill hydraulic conductivity, k_{sb}, and (b) equivalent hydraulic conductivity, k_{eq}, of the wall (backfill plus filter cakes) assuming intact filter cakes on the trench sidewalls (from Britton 2001).

A discussion of the Britton et al. (2004) study was authored by Chapuis (2006). The discussion raises questions regarding the details of the facility and test methods used to measure *k*. Chapuis (2006) comments on comparison of field observations and control tests in pilot scale walls versus a full scale SB wall with typical construction. A notable argument posed in the discussion points out that differences in *k* may not be attributed to a scale effect as suggested by Britton et al. (2004). Other factors may play a larger role, such as sample heterogeneity, differences in sample preparation, test method accuracy, and data interpretation uncertainties. The question of sample size scale effects on *k* is not resolved.

The subsequent closure to Chapuis' discussion is provided by Britton and Filz (2006). The closure addresses the questions raised by Chapuis (2006) regarding the effect of sample volume, noting that "it would be interesting to investigate whether such a trend would also be observed in a full scale SB cutoff wall." For compacted clay liners, previous studies have found that in-situ methods of measuring *k* have resulted in field *k* values greater than laboratory *k* values, and large-scale laboratory *k* values greater than small-scale laboratory *k* values (Daniel 1984, Shackelford and Javed 1991, Benson et al. 1997). These findings for compacted clay are typically attributed to material variability (e.g., larger clods in larger specimens) and macroscale pore networks present in the field that are not represented in small-scale laboratory tests (Benson et al. 1997). Although the consistency of SB backfill differs considerably from compacted clay (e.g., backfill is softer and is not expected to contain clods), it is possible that larger-scale tests on SB backfill could yield higher *k*. For example, larger scale tests can accommodate larger particles (such as gravel and cobbles) that may be present in the field-scale backfill but are absent from small scale test specimens. Also, variability in backfill gradation and incomplete mixing at the field scale may not be represented in small laboratory tests.

The experiments conducted at the SBTF by Britton et al. (2004) expanded the understanding of the in-situ behavior of SB walls and appears to have been the only previous study where SB walls were built in the field for the purpose of research. However, the limitations of the Britton et al. (2004) study include the relatively small size of the pilot-scale walls, the lack of direct stress measurements, and the absence of strain measurements. These limitations represent opportunities for future research that could be conducted with a larger full-scale cutoff wall equipped with more instrumentation.

2.4 Slug Tests in Cutoff Walls

Single well slug tests are a method to determine the in-situ hydraulic conductivity of the soil surrounding the well. The slug test involves changing the head within a well instantaneously and recording the rate at which the water in the well returns to equilibrium with the surrounding water table. Calculating *k* from the flow rate within the well requires equations derived from first principles, an understanding and quantification of the geometry controlling water flow, and some basic assumptions. Figure 2-9 shows the geometry of a slug test well, where H is the height of regional water table above the bottom of the well, L is the length of screened portion of the well, r_c is the radius of the well casing, r_w is the radius from the center of the well to the aquifer material including the sand or gravel packed around the well (developed zone), D is the depth from the water

table to the bottom of the wall, and y is the height from the elevation of the water inside the well to the elevation of the equilibrium water table surrounding the well.

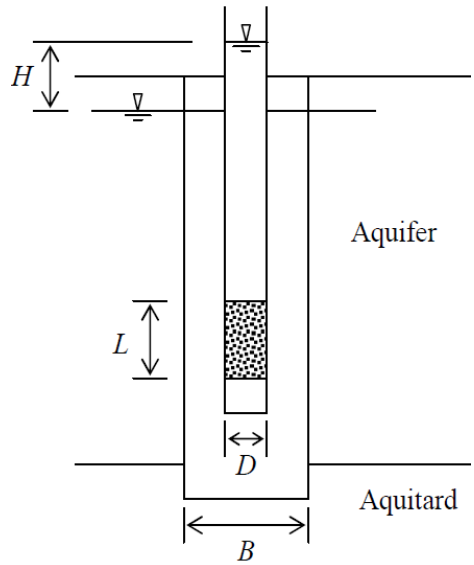


Figure 2-9. Schematic illustration of slug test geometry and variables (from Britton et al. 2005b).

Hvorslev (1951) developed the first procedure for measuring *k* within an aquifer with a piezometer and proposed a method of data interpretation based on the Thiem equation for steady state flow into a well (Thiem, 1906). The Thiem equation is the basis for all slug test data interpretation methods discussed here, the terms shown in Figure 2-9 are used in the following equations. The Thiem equation is modified and presented as

$$\mathrm{Q} = 2\pi k \mathrm{L} \frac{H}{\ln(\mathrm{R_e}/\mathrm{r_w})} \tag{2.1}$$

where Q is the flow in/out of the well (length^3/time), *k* is the hydraulic conductivity of the aquifer (length/time), L is the height of the screen section of the well, R_e is the effective radius over which H is dissipated, and r_w is the radius from the center of the well to the outside of the developed zone of the well (i.e., from the well to where the natural aquifer starts). All terms are constant for a given installation, except Q and y.

The rate of rise/fall of the water level inside the well casing can be related to flow by the equation

$$\mathrm{d}H/\mathrm{d}t = -\mathrm{Q}/\pi \mathrm{r_c^2} \tag{2.2}$$

Substitution of Eq. 2.2 into Eq. 2.1, rearranging, and integrating from H_0 at t = 0 to H_t at a later time t yields the following equation for *k*:

$$k = \frac{\mathrm{r_c^2 ln(R_e/r_w)}}{2\mathrm{L}} \frac{1}{\Delta t} \ln\left(\frac{H_0}{H_t}\right) \tag{2.3}$$

Equation 2.3 is the basis for all the methods of slug test data interpretation described in this study. The only difference between each method is how the effective radius (R_e) is estimated. The effective radius is the radial distance from the well center to the point which the head difference (Δh or H)

is dissipated into the surrounding aquifer. The value of $\ln(R_e/r_w)$ is a function of the geometry of the well, including the variables depicted in Figure 2-9 (i.e., L, r_c, and r_w). Hvorslev (1951) provides several alternative expressions for Eq. 2.3 based on different well screen/casing configurations and bottom boundary conditions. For example, the configuration presented by Hvorslev (1951) which is most relevant for this study, is the "well point-filter in uniform soil", and the corresponding form of Eq. 2.3 is as follows:

$$k = \frac{r_c^2 * \ln(2mL/r_w)}{8 * L * (t_1 - t_2)} * \ln(\frac{H_0}{H_t}) \tag{2.4}$$

where m is related to the ratio of horizontal to vertical hydraulic conductivity (k_h/k_v) by

$$\mathrm{m} = \sqrt{k_\mathrm{h}/k_v} \tag{2.5}$$

Since Hvorslev (1951), several other slug test data interpretation methods have been presented in the literature (Bouwer and Rice 1976, Teeter and Clemence 1986, Britton 2005, Choi and Daniel 2006a,b, and Lim et al. 2014). All of these methods utilize equations similar to Eq. 2.3, but the methods differ regarding the calculation of $\ln(R_e/r_w)$. For example, Bouwer and Rice (1976) utilized Eq. 2.3 along with the following semi-empirical expression for $\ln(R_e/r_w)$ from an electrical resistance network analog:

$$ln\left(\frac{R_e}{r_w}\right) = \left[\frac{1.1}{\ln(H/r_{w)}} + \frac{A + B * ln\lfloor(D - H)/r_w\rfloor}{L/r_w}\right]^{-1} \tag{2.6}$$

where A and B are dimensionless coefficients that are a function of L/r_w, as shown in Figure 2-10.

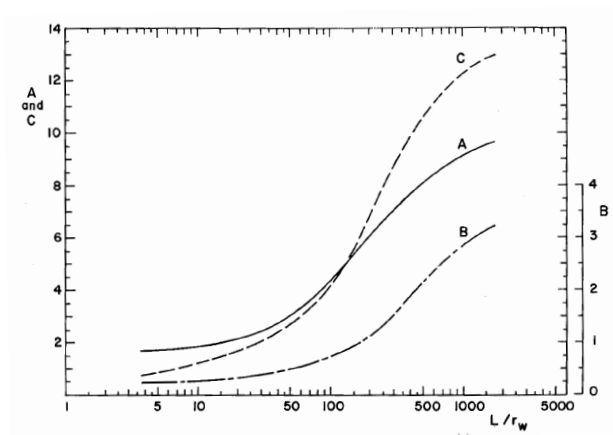


Figure 2-10. Chart solution for A and B values as inputs to Equation 6 (from Bouwer and Rice 1976).

The more recent theoretical frameworks presented by Britton et al. (2002, 2005b), Choi and Daniel (2006a,b), and Lim et al. (2014) were developed specifically for slug tests conducted within cutoff walls.

The equation given by Britton et al. (2002, 2005b) is as follows:

$$k = \frac{-A}{F\Delta t}\ln\left(\frac{H_s}{H_{so}}\right) = \frac{-A}{F}m \tag{2.7}$$

where A is the cross-sectional area of the standpipe, m [= $\ln(H_s/H_{so})/\Delta t$] is the slope of the normalized head dissipation curve, and *F* is a lumped "shape factor" that incorporates L and $\ln(R_e/r_w)$ in Eq. 2.3. Note that H_s and H_{so} in Eq. 2.7 are the same as y_t and y_0, respectively, in Eq. 2.3. The shape factors, *F*, shown in Figure 2-11, were developed with 3D finite difference program MODFLOW in GMS 3.1 (Brigham Young University 1994) which is designed to model groundwater flow. The shape factors shown in Figure 2-11 are from Britton et al. (2002, 2005b). Figure 2-11 includes the lower bound established by Tavenas et al (1990) for slug tests in an infinite aquifer, and the upper bound from Brand and Premchitt (1980) developed for piezometers in a cylindrical soil sample within a membrane. D is equal to r_w and L is the same length of the screen.

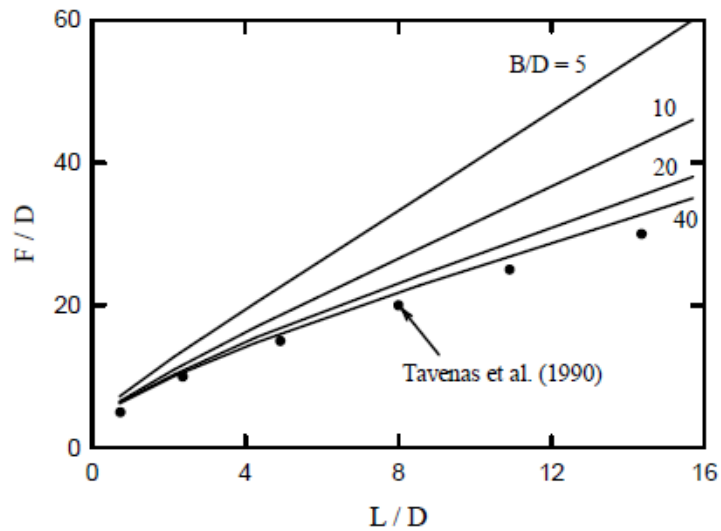


Figure 2-11 Chart solution to determine well shape factor *F* (from Britton et al. 2005b).

One year later, Choi and Daniel (2006a,b) presented a different theoretical framework for slug testing in a cutoff wall that can be expressed in a form similar to Eq. 2.3 as follows:

$$k = \frac{r_c^2 \ln(R_e'/r_w) f}{2L}\frac{1}{\Delta t}\ln\left(\frac{y_0}{y_t}\right) \tag{2.8}$$

where f is a reduction factor that accounts for the cutoff wall lateral boundary condition and R_e' is a modified effective radius that accounts for the compressibility of the backfill (which is not accounted for in the aforementioned methods). In the most recent study by Lim et al. (2014), a similar equation to Eq. 2.8 was presented, as follows:

$$k = \frac{r_c^2}{2LP\Delta t}\ln\left(\frac{y_0}{y_t}\right) \tag{2.9}$$

where *P* [= $1/(\ln(R_e/r_w))$] is defined as the shape factor. Lim et al. (2014) developed new shape factors to account for either a "constant head" boundary condition or a "no flow" boundary

condition along the trench sidewalls, with the latter representing the case in which an intact filter cake is present. The constant head and no-flow boundaries represent the two extremes in the actual flow condition present.

The Hvorslev (1951) method of slug test data interpretation and all subsequent modifications are based on a few important assumptions: (1) the water table in the aquifer surrounding the well remains constant throughout the test, 2) small losses from the capillary fringe and from the water entering the well can be neglected, and 3) the aquifer is homogenous and isotropic. These are reasonable assumptions, although fluctuation of the water table in the field during the slug test is possible and should be monitored.

When raising or lowering the water level inside the slug test well, the effective stress surrounding the well screen is lowered/raised. For soft compressible soils, this can be problematic in both cases. If a column of water is added to the well to the point that the hydraulic head is greater than the total stress, hydraulic fracture of the material surrounding the screen will occur (i.e., the effective stress goes to zero). Hydraulic fracture has been used to roughly estimate the in-situ effective stress of cut-off walls (Evans 1995). When lowering the hydraulic pressure within the well, the material surrounding the screen will undergo some consolidation due to the higher effective stress. The consolidated material will have a lower *k,* distorting the test results. To resolve this issue, Britton et al. (2004) suggests adding small amounts of water to conduct slug tests in compressible SB material and using the range of H_t/H_0 over 0.25-0.10, as proposed by Butler (1996), to overcome the compressibility of the SB backfill. Chapuis (2006) points out why this leads to an underestimation of *k.* The closure (Britton and Filz 2006) responds that the one test analyzed in the discussion is not representative of the entire data set.

The location of the well screen within the wall is critical. If the well screen is not centered in the wall, eccentricity relative to the boundaries will skew the slug test data, requiring complicated calculations to compensate or show the amount of error to be expected (Choi and Daniel, $2006_{a, b}$). Improved location control and more sensitive and efficient data collection methods were noted as limitations of the Britton et al. (2005b) study and topics for future research.

The boundary conditions present in SB cutoff walls are the source of much dispute. The effect of a filter cake on flow within the cutoff wall has been studied extensively as discussed above. The literature review of this topic requires additional depth than provided above. An in-depth discussion of the body of literature relevant to performing slug-tests within cut-off walls follows.

Teeter and Clemence (1986) investigated the additional considerations required to conduct slug tests within a cutoff wall due to the boundary conditions present. They present the case that if the effective radius is greater than half the width of the cutoff wall (R_e>B/2) then the *k* calculated from the Bouwer and Rice method will be higher than the actual *k* of the cutoff wall. To correct for this, Teeter and Clemence (1986) propose the use of flow nets to account for the geometry of the aquifer. Teeter and Clemence (1986) also provide several good arguments for the use of slug tests conducted within a cutoff wall as a means to measure k; the economics of installing a monitoring well are favorable (note: the technology for installation of a well within soft soil has improved considerably since 1986), the well is permanent and can be used to monitor water levels and water quality (e.g., contaminant flux), the volume of the cutoff wall tested is much larger than collecting samples, and

when conducting a rate of rise test the permeant is site pore fluid, which is the most desirable condition (as opposed to adding foreign water, probably a negligible factor). Teeter and Clemence (1986) provide some perspective on the subject of filter cakes citing Tallard (1984), who states that the filter cake is compromised during backfilling and that it is not a long term component of the cutoff wall. They also cite D'Appolonia (1979), who believes that the filter cake may remain intact, but hypothesizes that the *k* of the filter cake is essentially the same as the *k* of the backfill. Teeter and Clemence (1986) conclude that "the role of filter cakes becomes academic" and that "the permeability of a slurry trench cutoff wall can be adequately determined through measurement of the permeability of its backfill." Finally, Teeter and Clemence discuss (1986) hydraulic fracturing within a SB wall. Hydraulic fracturing occurs when the hydraulic pressure exceeds the minor principal total stress in soil. If the excess hydraulic pressure dissipates quickly the fractures close and the soil heals. If the fracturing is prolonged the damage may cause preferential flow paths and erosion can occur. Although conducting slug tests within a cutoff wall poses a risk of hydraulic fracture when adding water to the well, by conducting rate-of-rise slug tests this risk is eliminated.

A study by Bhatia (1989) investigated the application of the Bouwer and Rice method of interpreting slug tests conducted within a cutoff wall. Bhatia (1989) utilized a finite element mesh computer program to estimate the theoretical effective radius. Several geometry configurations were studied, and the results indicate that the Bouwer and Rice method would overestimate R_e and that there are several factors that should be included. Bhatia concludes that the R_e is typically 60-90% of the width of the cutoff wall.

A study conducted by Napoleoni and Ottaviani (1999) compared results of laboratory and in-situ measurements of *k* obtained from a cement-bentonite cutoff wall installed around an ash containment facility. Piezometers were installed before the cement hardened. Cone penetration tests with pore pressure (CPTU) soundings were performed with pore pressure dissipation testing. The advantages and disadvantages of field permeability tests are outlined as adapted from Manassero (1995), showing piezometers to be advantageous when installation procedures are improved. The results indicate field measurements of *k* to be generally higher than laboratory measurements and that installing piezometers within a cutoff wall as a means of quality control is a viable option.

Two papers published by Choi and Daniel (2006a,b) provide background, context, and procedures for conducting and analyzing slug tests in vertical cutoff walls. They demonstrate the importance of centering the well within the cutoff wall, deviation from center will affect slug test results. Choi and Daniel (2006b) point out that the Britton (2002) study proposing well shape factors neglects compressibility of the soil, and they propose a curve fitting with type curve families for specific well geometry configurations. Matching curves is difficult and curve type families do not exist for many well configurations. Another method is proposed called the modified linear curve fitting method that involves calculating the dimensionless compressibility factor and then applying the Hvorslev 1/e lag time method with a new shape factor f that considers the compressibility factor. A case study is described from the West Contra Costa Sanitary Landfill where relatively undisturbed and reconstituted samples were tested in the laboratory in flexible wall tests and slug tests were performed in the wall. The results indicate a much higher *k* measured from slug tests than remolded samples. Less than 5% difference of *k* is observed between the modified linear curve fitting method and the type curve method, attributed to human differences in interpolating. The Bouwer and Rice method was previously applied to the same slug test data, yielding 20 to 30%

higher *k*, which is not considered to be significant. They note that other methods include errors that often offset each other, resulting in a nearly correct answer. Choi and Daniel (2006b) claim that their methods are more rigorous and eliminate errors from the calculation, and are not more difficult to use. Their method does actually require additional inputs including the compressibility of the soil skeleton as determined from 1-D consolidation tests, several charts and made-up parameters are involved.

The second part of Choi and Daniel (2006b) is focused on applications of the method outlined in Choi and Daniel (2006a). The issue of the proximity of the well to the cutoff wall boundary is addressed. When the material is highly compressible the close proximity is not a factor, if the material is not compressible the "perturbation zone" (effective radius) does reach the edge of the cutoff wall. Again the effect of eccentricity of the screened portion of the well is discussed and shown to matter only when very extreme or in uncompressible material, compressible material produces nearly identical type curves regardless of moderate eccentricity. The hydraulic response near the well is considered, the initial flow into the well from a rising head test is faster from the pore space contracting from the increase in effective stress, later in the test the rate is slower because of the decrease in available flow paths. The effect of the initial slug size is considered, Choi and Daniels confidently state that "The initial slug size or head should not affect the test results if hydraulic properties are constant." They qualify this statement by noting the effect of changes in effective stress due to changing the pore pressure. They consider rising versus falling head tests (i.e., adding v removing water from the well) and potential differences in results. No difference is observed by Choi and Daniels between the rising and falling head tests except the already heavily discussed changes in effective stress that occurs. Choi and Daniel discuss the flow net method proposed by Teeter and Clemence (1986), they determine that this method overestimates *k* in compressible material and is accurate in un-compressible material. Choi and Daniel investigate the effect of filter cakes on the trench walls using Slug_3D models. They model differences in *k* between the cutoff wall material and the adjacent formation of magnitudes of 10, 100, and 100. At difference in *k* of 1000 they claim that the boundary becomes a no-flux boundary. The study concludes by discussing the effect of compressibility on the results of slug test results and how their method eliminates the effect of compressibility. One notable conclusion is that larger head changes produce more accurate results in highly compressible materials. Choi and Daniel (2006) recommend a full numerical simulation with a code such as Slug_3D.

2.5 Piezocone Penetration Tests to Evaluate *k*

Several researchers have attempted to measure *k* using piezocone penetration tests, typically by measuring the excess pore pressure dissipation rate and applying similar techniques as Hvorslev (1951) to interpret *k*. Manassero (1994) presents techniques of estimating *k* from CPTU (piezocone) soundings in cement bentonite (CB) cutoff walls. Two methods are proposed, one is the pore pressure dissipation test while the other uses continuous CPTU data to roughly estimate *k*.

Britton et al. (2004) conducted piezocone dissipation tests results with some success. There are several limitations to this method of measuring *k*. CPT sensors are designed to measure the resistance of soil with considerably higher shear strength than SB, thus resistance readings in SB

are near zero. The pore pressure sensor within the CPT unit must be completely saturated to provide correct measurements, pushing through unsaturated soil near the surface may distort later readings if air is introduced into the system. The CPT requires a drill rig to advance the sounding, a drill rig requires at least two people to safely operate (i.e., a driller and a driller's helper). The long period of time required to measure even just 50% of the dissipation curve (8 to 50 hours) in soil with low *k* would be highly costly in terms of labor and equipment costs. Collecting pore pressure readings while the pore pressure dissipates would require a data collection system compatible with and calibrated to the specific CPT equipment used. Older CPT equipment may require manual input (e.g., a human pushing a button to activate readings). A continuous power source is required to power the data collection (i.e., a generator or solar panels with battery). Once the data has been collected, processing the data may prove to be difficult if the dissipation curve is not linear on a semi-log scale. As opposed to a slug test where the initial excess pore pressure is evident, the initial excess pore pressure initiated by the CPT is not clear and will vary depending on the rate of push, size of equipment, and the grain size distribution of the soil. The disturbance caused by penetrating the SB wall has been shown to heal over time, but potential for degrading the barrier performance certainly exists, especially in the upper section of SB walls that are not saturated, stiff, or desiccated.

Takai et al. (2016) used CPTU to measure *k* of bench scale SB samples in the laboratory. Results of CPTU pore pressure dissipation tests are compared to laboratory measurements of *k* such as flexible wall permeameter tests in Figure 2-12. Each study shown in Figure 2-12 measured the *k* of a specific soil using both the CPT pore pressure dissipation method and also in the laboratory with conventional methods. The relationship between laboratory measurements of *k* and CPT pore pressure dissipation tests indicate that CPT tests result in a higher *k*.

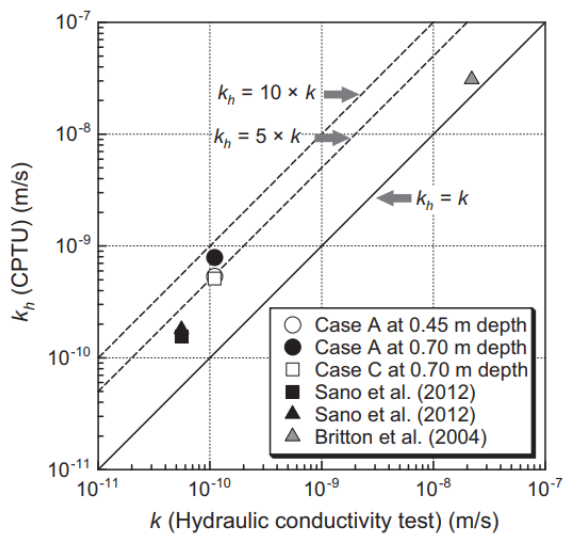


Figure 2-12. Comparison of *k* obtained from CPTU and Laboratory methods in three studies. (from Takai et al. 2016)

The logistical challenge of the time required for excess pore pressure dissipation is discussed and indicate that recording less than 50% of the excess pore pressure dissipation results in similar measurements as greater than 50%. Takai et al. (2016) review previous studies regarding measurements of *k* from CPTU testing and find the limitations of the method for measuring *k* in

SB walls include the difficult logistics of setting up CPTU for continuous readings over the several hours or days required to record the dissipation curve and the relatively small sample size tested.

Studies on the laboratory and bench scale have been successful in measuring *k* of SB with CPT pore pressure dissipation tests, yet this method has not been successfully used on full scale SB walls.

3 CONSTRUCTION AND MONITORING OF AN INSTRUMENTED SOIL-BENTONITE CUTOFF WALL

3.1 Introduction

Vertical barriers (i.e., cutoff walls) have been employed for more than 50 years to control groundwater flow and subsurface contaminant transport at thousands of sites in the United States and abroad. In the U.S., the most common type of vertical hydraulic barrier is the soil-bentonite (SB) slurry trench cutoff wall that takes its name from the nature of the final barrier material (SB), and the method of construction (slurry trench). While numerous other methods are used to construct vertical barriers, such as the deep mixing method (e.g., Larsson 2005), the trench remixing and deep wall (TRD) method (Evans 2007), and self-hardening slurry methods like cement-bentonite and slag-cement-bentonite (e.g., Opdyke and Evans 2005), these other types of vertical barriers have been used less frequently than SB slurry trench barriers.

Construction of SB slurry trench cutoff walls occurs in two phases, viz., (1) a vertical trench is excavated and simultaneously filled with bentonite-water slurry to maintain trench stability, and (2) the excavated trench spoils, or a suitable base soil are mixed with slurry and dry bentonite (as needed) to create the SB backfill, which is pushed into the trench to complete the barrier. Properly prepared backfill is homogeneous and sufficiently fluid to fill the entire trench without entrapping pockets of slurry, yet sufficiently dense that the backfill is not too compressible (Evans 1993). The backfill also must exhibit a sufficiently low hydraulic conductivity *(k)* to meet project requirements (typically $\leq 10^{-7}$ cm/s or $\leq 10^{-6}$ cm/s).

Soil-bentonite cutoff walls continue to be widely used for long-term applications, such as levee repair and geoenvironmental containment. These barriers are expected to perform effectively for many years, often decades after installation. In these applications both the short-term (as built) integrity of the barrier, and the potential for degradation in the integrity of the barrier over time are of critical importance. Short-term integrity of SB cutoff walls typically is assessed based on quality control/quality assurance (QC/QA) testing of field-mixed SB backfill, primarily using laboratory methods to measure *k* (e.g., Millet and Perez 1981, Millet et al. 1992). Laboratory measurements of *k* are easy to obtain and are important, but ultimately, the in-situ performance is of primary significance. The in-situ *k* of SB cutoff walls is related directly to the in-situ stress distribution in the wall, which typically is not measured and generally not fully understood. The vertical stress distribution is believed to be affected by “arching”, or frictional load transfer between the backfill and the trench sidewalls during backfill settlement (Evans et al. 1995), and lateral squeezing of the backfill by the adjacent, native formation (Filz 1996, Filz et al. 1999, Ruffing 2009, Ruffing et al. 2010). As a result of these mechanisms (arching in particular), the in situ vertical and horizontal stresses are likely to be lower than predicted stresses based on an assumed geostatic distribution. Laboratory *k* values obtained from grab samples of field-mixed backfill specimens may not be representative of the in-situ *k* if the applied stress state in the laboratory tests is not representative

of the in-situ stress state (National Research Council 2007). Moreover, laboratory *k* tests are insufficient for verifying the absence of high-k construction defects, and even a few small defects can significantly increase the overall *k* of the barrier (Benson and Dwyer 2006). This latter point was evaluated in a study by Britton et al. (2004) in which laboratory and field methods for evaluating *k* of a pilot-scale SB cutoff wall were compared. In this study, laboratory *k* values obtained from undisturbed and remolded specimens of the field backfill were consistently lower than larger-scale *k* values obtained from in-situ measurements (piezocone and piezometer) and pumping tests. Regarding long-term integrity, several factors may cause changes in *k* of an SB barrier over time, including; deformations, desiccation, freeze-thaw, and chemical incompatibility (e.g., see National Research Council 2007, Malusis et al. 2011, Malusis and McKeehan 2013). The significance of these factors on the effectiveness of field-scale SB barriers is largely unknown.

Uncertainties in the state of stress (and thus hydraulic conductivity), time-dependent changes in backfill properties, and variability of hydraulic conductivity under field conditions are all compelling reasons for post-construction monitoring and testing of cutoff walls. There have been a few documented cases in which constructed cutoff walls have failed to provide the expected containment due to construction defects or post-construction changes in the wall (as opposed to design deficiencies). In one case, poor wall performance was revealed by groundwater monitoring data and attributed to localized defects such as sand lenses embedded in the wall during construction (in this case, continuous cores were taken to identify and characterize these defects; see Evans et al. 2004). In another case, post-construction property changes and/or inadequate in-situ testing procedures resulted in measured *k* values greater than the required *k* (Cermak et al. 2012).

Notwithstanding these examples, cutoff walls have been constructed for decades with few reported problems. However, published case histories of field investigations are scarce, due at least in part to trepidations of site owners that in-situ testing of completed cutoff walls would be invasive and potentially disruptive. While there have been a few field studies in which sampling and in-situ testing of an SB wall have been performed (e.g., Evans and Ryan 2005, Ruffing and Evans 2010, Ruffing et al. 2010, 2011, 2012). These studies have been limited in scope and duration due to site access limitations and concerns over potential impacts to the wall from in-situ testing. Another layer of complexity is that post-construction groundwater monitoring often is not adequate to detect wall deficiencies. Complex geology and groundwater chemistry regimes may render detection of localized defects in a cutoff wall difficult unless the monitoring is focused specifically on the wall.

For all of the reasons described above, and with support from the National Science Foundation, the Montandon SB cutoff wall research site was created in the summer of 2016 near the Bucknell University campus (Lewisburg, PA) for the express purpose of evaluating the behavior of a full-scale SB cutoff wall for comparison to the practical understanding of SB behavior that primarily has been based on laboratory studies. The primary objectives of the field research are three-fold: (1) to investigate the in-situ stress distribution present in the wall, both at the end of construction and over time; (2) to investigate changes of in-situ properties of the wall with time, including water content, *k*, and shear strength, with special consideration given to differences above and below the water table; and (3) to investigate the feasibility of electrical resistivity (ER) imaging as an effective geophysical method for detecting variations in homogeneity, including defects placed within the wall. Details regarding the design, construction, and instrumentation of the wall are presented along

with monitoring data and field and laboratory test results collected during the first 580 days (~20 months) after construction. Findings related to the short and mid-term properties and behavior of the wall based on these data also are discussed.

3.2 Background

The SB cutoff wall research site is located on the property of a commercial sand/gravel quarry operated by Central Builders Supply (CBS) in Montandon, PA, approximately 3 km east of the Bucknell University campus in Lewisburg, PA (see Fig. 3-1). The wall is approximately 200 m long, 0.9 m wide, and 6 to 7 m deep. The wall was installed on a portion of the property that has been set aside in perpetuity as a buffer between the permitted sand and gravel mining area and the adjacent, natural wetland known as the Montandon Marsh (Fig. 3-1c, d).

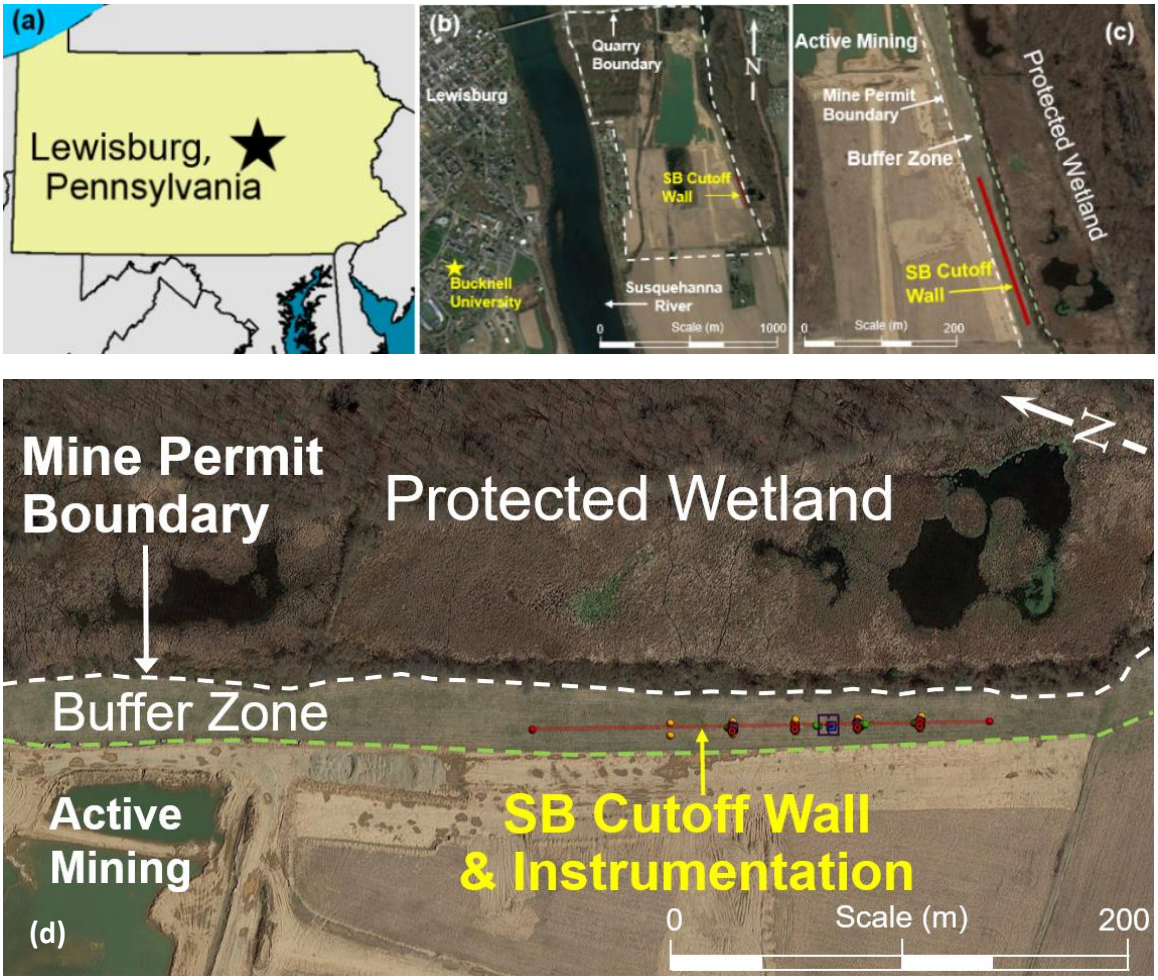


Figure 3-1. (a) Index map of site location; (b) aerial photo showing the relative proximity of the cutoff wall to the Bucknell University campus; (c) aerial photo of the portion of the quarry where the cutoff wall was constructed; (d) expanded aerial view of Montandon site with wall alignment, instrumentation, and adjacent land use information.

The wall was installed in a primarily alluvial formation within the footprint of a paleochannel of the Susquehanna River. Non-invasive electrical resistance imaging (ERI) and exploratory soil borings, completed approximately every 30-50 m along the wall alignment (see Fig. 3-2a), were used to characterize the subsurface conditions, verify the feasibility of the site for cutoff wall construction, and obtain samples for backfill mix design. The soil profile developed from logging and sampling at the locations of the borings, monitoring wells, and inclinometers, illustrated in Fig. 3-3, consisted of silty sand and gravel, underlain by sand and clay layers of varying thickness, followed by hard material (presumed to be bedrock) at 6-10 m below ground surface along most of the wall alignment. Borehole refusal depths in Fig. 3 corresponded well with higher electrical resistivity (indicative of bedrock) obtained from the ERI survey at similar depths. The depth to groundwater was approximately 2.5 m at the time of the subsurface investigations, but historic water levels measured in monitoring wells along the perimeter of the wetland indicate that the depth to groundwater approaches 0.5 m during wet seasons. Thus, at least 2 m of seasonal groundwater fluctuation is expected at the site.

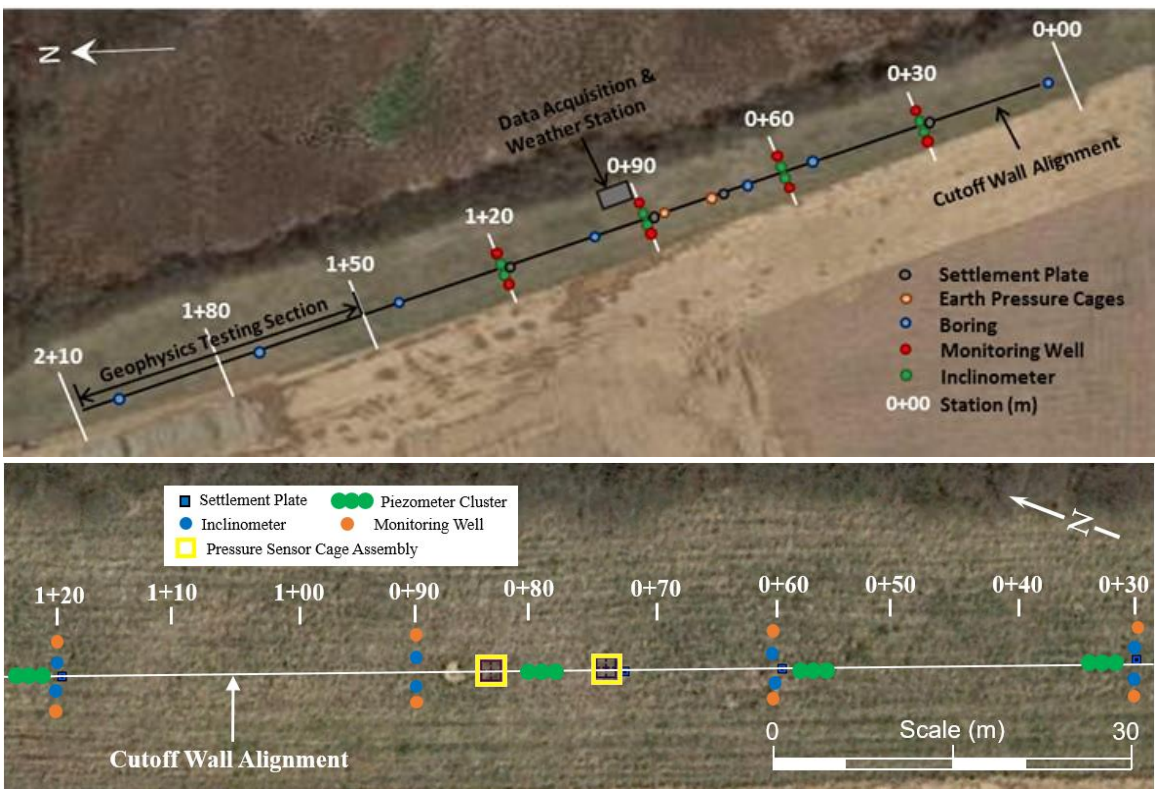


Figure 3-2. (a) Cutoff wall alignment with locations of exploratory soil borings, monitoring wells, inclinometers, earth pressure cages, and settlement plates; (b) section of wall from 0+30 to 1+23 m expanded to show instrumentation.

3.3 Wall Construction and Instrumentation

The cutoff wall was constructed by Geo-Solutions, Inc. (New Kensington, PA) and was completed over an 11-day period. Construction commenced July 11, 2016, and completed on July 21, 2016. Prior to construction, a work platform was prepared by clearing and grubbing a 10-m-wide strip along the wall alignment (5 m on each side of the wall centerline), with topsoil stripped and stockpiled for later reclamation. An unlined pond was constructed adjacent to the platform for mixing, storage, and hydration of bentonite-water slurry. The trench was excavated using a Caterpillar 330 excavator equipped with a 0.9-m wide smooth edge bucket (butter cutter edge). Excavation of the lead-in portion of the trench began at station 2+07 m and reached the design depth of 7 m at station 2+00 m resulting in a 1:1 starter slope. Excavation proceeded from station 2+00 m to station 0+06 m, resulting in a completed wall length (excluding the lead-in trench) of 194 m (201 m if the starter slope is included). Bentonite slurry (5-6 % bentonite by weight) was used in the trench for hydraulic shoring during excavation and for mixing the backfill. The slurry was mixed in a slurry mix plant consisting of a Venturi jet mixer and a high-shear centrifugal pump. Mixing water was pumped from a nearby pond and blended with CETCO (Hoffman Estates, IL) Premium Gel bentonite to obtain the desired Marsh viscosity (≥35 s). The slurry was stored and circulated in the pond for further hydration and pumped to the trench or to the mixing pad as needed.

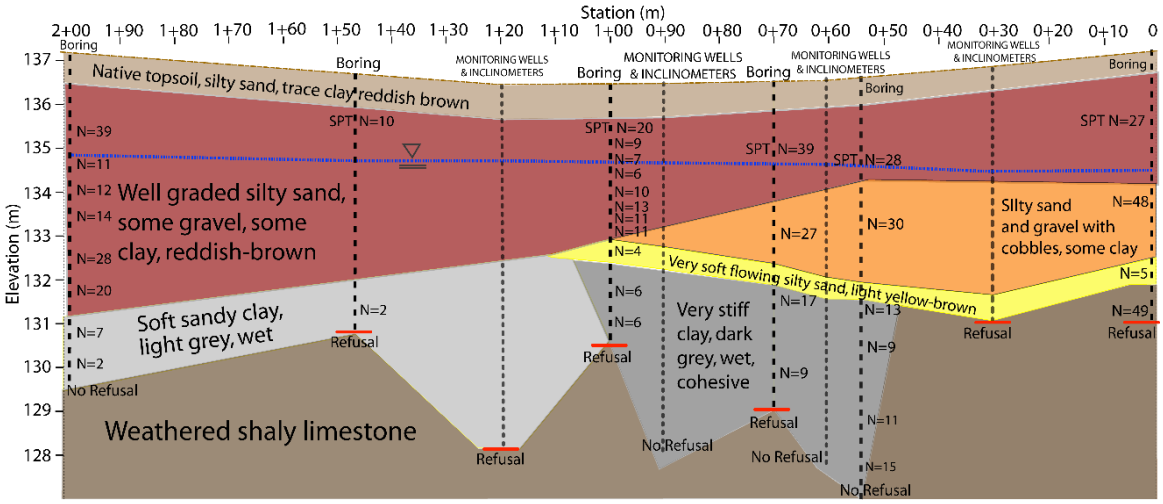


Figure 3-3. Conceptual model soil profile along the cutoff wall alignment based on soil characterization at locations of borings, monitoring wells, and inclinometers.

The subsurface conditions encountered during excavation were not entirely consistent with the conceptual profile created from the borings (Fig. 3-3). Much of the material excavated in the first ~100 m of the trench (i.e., station 2+01 m to station 0+99 m) contained appreciable fractions of gravel and cobbles (and occasional boulders), as illustrated in Fig. 3-4. Although some oversized materials were expected to be encountered, the abundance of these materials was greater than anticipated from the boring program. In addition, the stiff, gray clay encountered between stations 1+26 m and 0+57 m proved difficult to blend into the backfill. As a result, most of the native spoils were discarded and the backfill was prepared with stockpiled material excavated from other areas of the gravel and sand quarry. The base soil was delivered to site in articulating CAT 730 haul trucks and was homogenous, reddish-brown, silty-clayey sand with about 45% fines. Hard bedrock,

cobbles/boulders, and limestone pinnacles limited the excavation depth to less than 7 m at some locations.

The backfill was prepared by mixing the imported base soil with bentonite-water slurry alongside the trench until the desired slump of 75-150 mm was attained. The backfill mixing was performed primarily with a John Deere 700J dozer and occasionally with the excavator. The trench was backfilled with the excavator or dozer, starting at the top of the lead-in slope. The backfill was always placed from a point along the trench where the backfill was visible above the slurry level. This point, called the "head" of the backfill, moves forward as the trench is backfilled. The backfill placed at the head slides and slumps down the backfill slope into the trench, thus displacing the slurry (Evans et al. 1985). An example profile showing the migration of the backfill slope and excavation face over a 24-hour period is illustrated in Fig. 3-5.

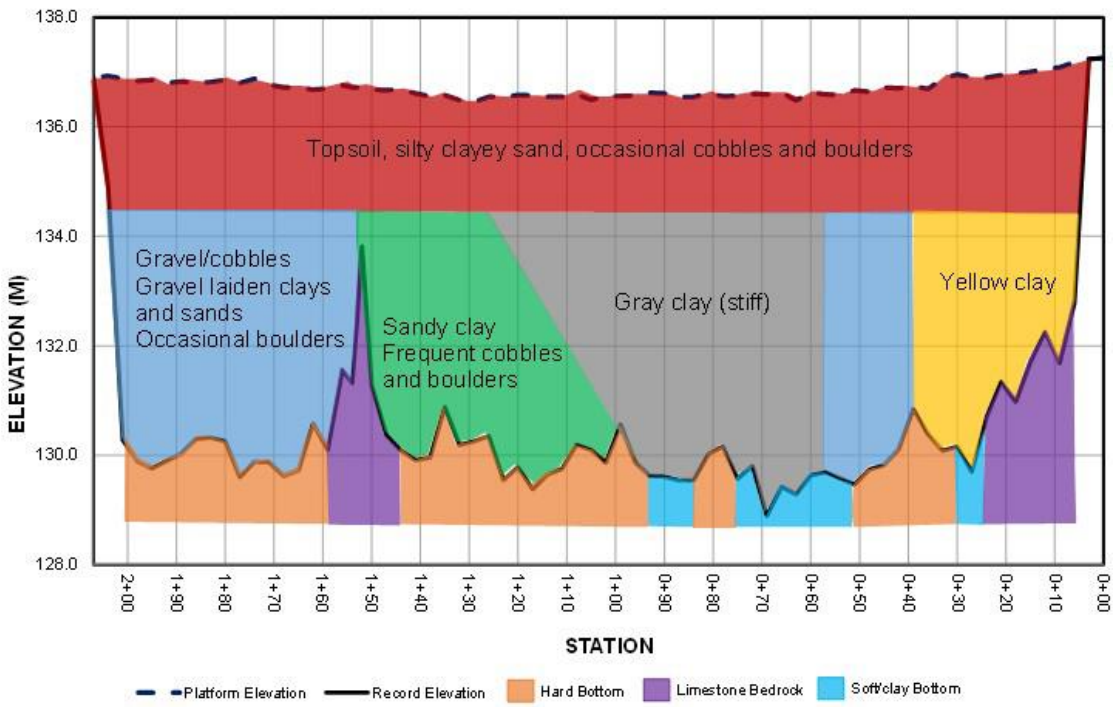


Figure 3-4. Subsurface profile based on materials encountered during excavation.

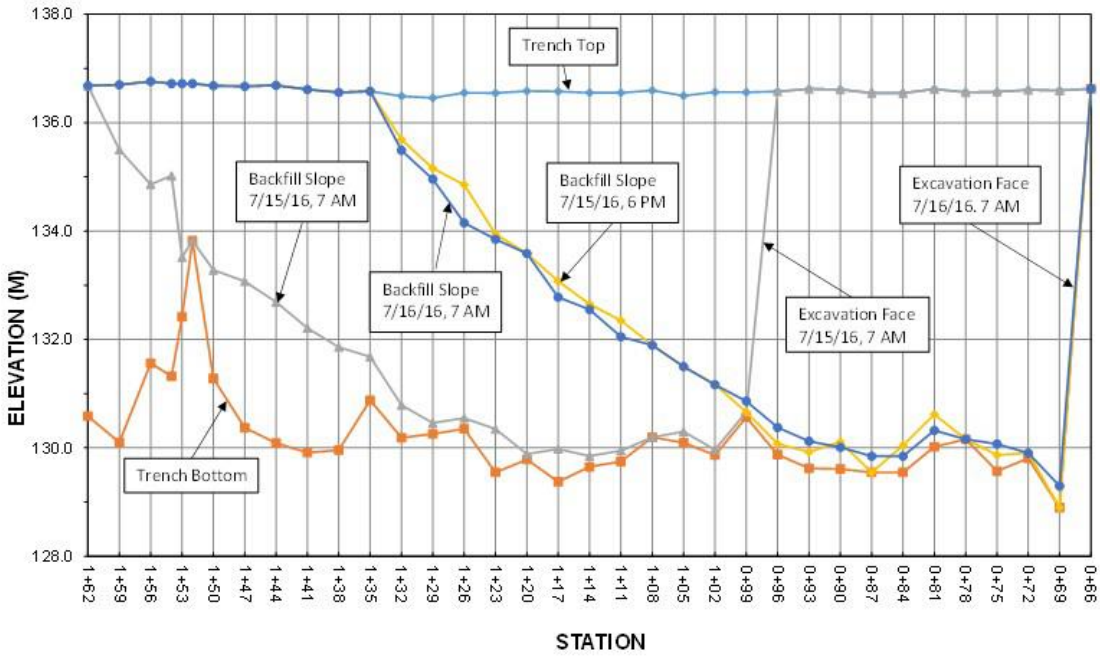


Figure 3-5. **Cutoff wall backfill profile based on trench soundings collected over 24-hour period from 7/15/16 (7 AM) to 7/16/16 (7 AM).**

Quality control testing was performed throughout the wall construction, in accordance with the frequencies and requirements listed in Table 3-1. Soundings of the trench bottom and/or top of backfill were taken at least twice daily, and slurry taken from the slurry pond (i.e., fresh slurry) and trench (i.e., in-trench slurry) were tested 1-3 times daily for viscosity, filtrate loss, pH, and mud density. Backfill slump was measured on grab samples using a standard ASTM C143 slump cone at a frequency of one test for every 10 m of backfilled trench. When slump samples were collected, grab samples of the backfill also were collected and placed in 20-L buckets for future laboratory testing.

Inclinometer readings were taken four times daily during trench excavation and backfilling in the vicinity of the inclinometer locations (i.e., stations 0+30, 0+60, 0+90, and 1+20 m; see Fig. 3-2). Inclinometer readings continued to be taken frequently over the days, weeks, and months after construction was completed. Four settlement plates were installed as shown in Fig. 3-2 once the backfill topped out at these locations. Settlement was measured with survey equipment (Trimble Total Robotic Station) several times daily in the week following completion of backfilling. Settlement measurements were surveyed at the same frequency as the inclinometers, numerous at first and gradually decreasing as time went on and the rate of consolidation decreased.

Table 3-1. Summary of testing frequencies during trench excavation and backfilling.

Test Type	Frequency	Requirement
Soundings (3-m intervals)	Beginning and end of each work shift, and as requested by project personnel	Trench bottom should be clean and at desired depth
Marsh Viscosity (fresh slurry)	3 per day	35-40 s
Marsh Viscosity (in trench)	3 per day	>40 s
Filtrate Loss (fresh slurry)	1 per day from pond	<20 mL
Filtrate Loss (in trench)	1 per day from pond	None (informational only)
pH (fresh slurry)	3 per day	6.5-10
Mud density (fresh slurry)	3 per day	>10 kN/m^3 (>64 pcf)
Mud density (in trench)	3 per day	10-13 kN/m^3 (64-85 pcf)
Backfill slump	1 per 10 linear m	75-150 mm
Grab sample of backfill (for lab testing)	1 per 10 linear m	N/A
Inclinometer readings	4 times daily during excavation and backfilling	N/A
Settlement readings	4 times daily, starting immediately after plate placement.	N/A

As illustrated in Fig. 3-2, the 50-m section of the wall immediately beyond the lead-in slope (i.e., station 2+00 m to station 1+50 m) was designated as the geophysical testing section. This section is being used to investigate the feasibility of ER imaging for detecting defects within the wall. Defects were created in this section by embedding a large limestone boulder (~600 mm diameter) and a series of bundled sand bags (i.e., woven polymeric bags filled with saturated sand and bundled together to create defects of different sizes) within the wall at prescribed locations and depths. Although most of these defects were placed along the bottom of the trench, two bundled sand bags were suspended above the trench bottom within the slurry-filled trench and connected to anchor ropes tied off above the ground surface to minimize their movement during placement of the backfill. The defect detection portion of the research is outside the scope of this thesis.

In addition to the monitoring wells and inclinometers installed adjacent to the trench prior to construction, earth pressure cages (RST Instruments Ltd., Maple Ridge, BC, Canada) were installed at two locations (stations 0+75 m and 0+87 m; see Fig. 3-2) to monitor the three-dimensional state of stress in the backfill over time (see Fig. 3-6). The instrumentation on each cage includes three vibrating-wire stress sensors ("pancake cells") to measure vertical and horizontal (longitudinal and transverse) total stresses. Each cage also was equipped with a vibrating-wire piezometer to measure pore water pressure, a biaxial tilt-meter and magnetic compass to monitor the in-situ orientation of the cage, and a thermocouple to monitor temperature. The cages were originally designed for use in mine paste backfill and, therefore, have an open structure that allowed the SB backfill to flow through the cage and cover the sensors. Each cage is equipped with three pressure plates oriented orthogonally in three directions (i.e., vertical, horizontal in the longitudinal direction of the wall, and horizontal in the transverse direction of the wall). Pore pressure is also measured at each cage.

All sensors were connected to Kevlar-reinforced cables that extended out of the wall and were routed to an enclosed, weatherproof field station adjacent to the wall (see Fig. 3-2) for data acquisition. The cages were installed at each location by first placing a braced steel frame into the slurry-filled trench and anchoring the frame into the clay bottom by pushing the pointed tips of the frame into the clay with the excavator.

Metal sleeves were bolted onto the cage corners so that the cages could be placed on the frame (by sliding the sleeves over the steel legs of the frame) and lowered into the trench. At station 0+84 m, three cages were placed on the frame at different depths (i.e., 2.4, 4.4, and 6.4 m below ground surface) with cross-bracing between each cage. At station 0+75 m, a single cage was placed near the bottom of the trench (6.2 m below ground surface) to provide replicate measurements of stress and pore pressure near the trench bottom. Each cage was held with vertical ropes tied off above the ground surface to fix the cage depth during backfilling. Also, the top of each frame was horizontally anchored to minimize rotation of the frame caused by the lateral pressure of the flowing backfill. Backfill was prepared to a higher slump to flow more easily through and around the cages. However, the force of the flowing backfill deformed the cage and backfill was placed from the other side to balance the longitudinal force on the cage (contrary to common practice of backfilling end to end). Once the cages were submerged in the backfill, the vertical ropes were removed so that the cages would be free to move downward along the frame as the backfill settled. These ropes were checked several months later and the cages had not moved up or down at all.

All of the data collected from the sensors mounted on the earth pressure cages (i.e., total stresses, pore water pressures, temperatures, and cage orientations), from the vibrating-wire transducers in the monitoring wells installed adjacent to the trench, and from the sensors on the weather station installed on the top of the field station (i.e., precipitation, temperature, relative humidity, and barometric pressure) are being acquired with a Campbell Scientific CR6 data logger located inside the field station. The sensors on the earth pressure cages are sampled and stored every 15 minutes. Weather data is sampled every 15 minutes and aggregate values are stored hourly.

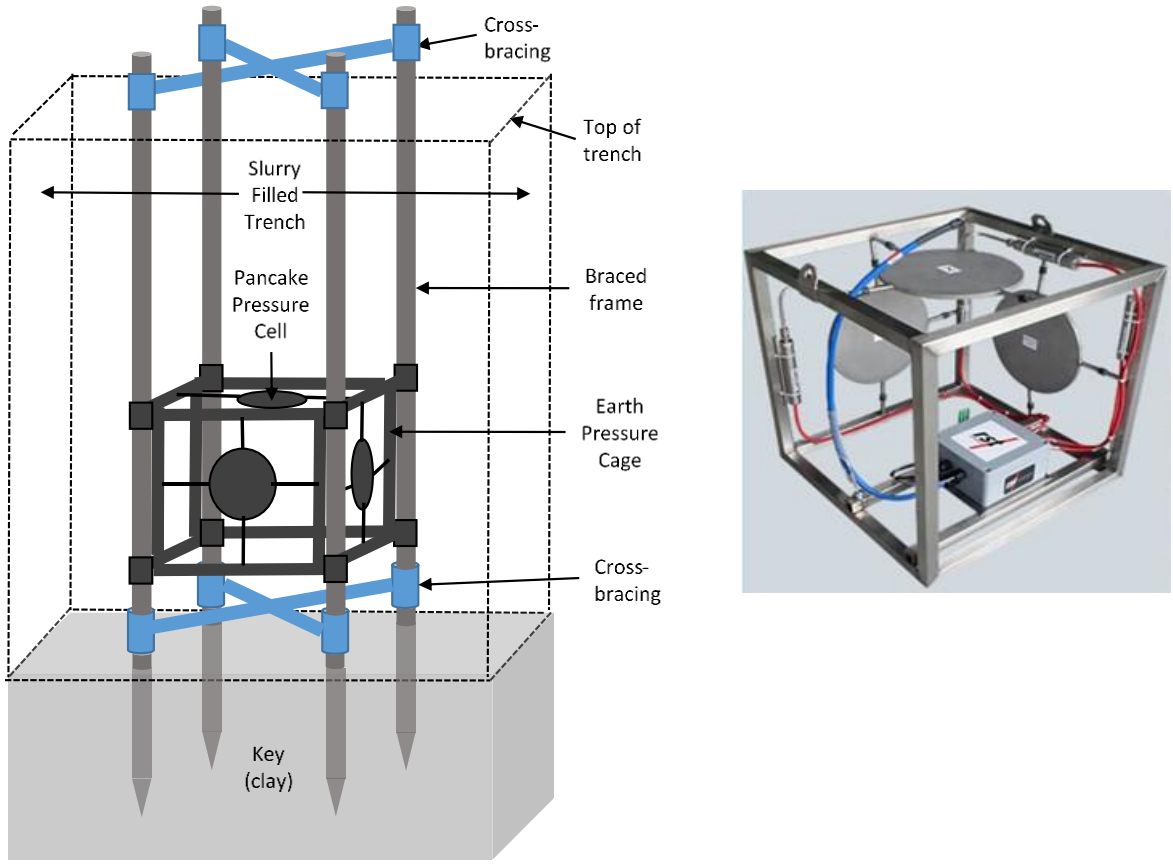


Figure 3-6. Schematic of earth pressure cage assembly on braced frame keyed into underlying clay (left) and photograph of earth pressure cage (right) (photograph from RST Instruments, Maple Ridge, BC, Canada).

All data were transmitted wirelessly to a base station on the Bucknell University campus, approximately 3 km west of the site. When new data are received by the base station, the data are passed to a web service on the Bucknell network for storage and for visualization with a custom web-based dashboard developed using the Flask micro-framework (http://flask.pocoo.org/). The dashboard allows the user to graph individual sensor data, display raw data in tabular form, and download data as a comma-separated values (CSV) file. The total time from data being sampled at the site to when the data become visible on the dashboard is approximately 1 hour, allowing site changes to be observed in near real-time from any internet-enabled computer.

Approximately six weeks after the construction of the wall was complete, the top of the wall and the adjacent ground surface were leveled and a 3-m wide woven geotextile was placed over the area. All instrumentation was left in place. The geotextile was covered with approximately 0.4 m of topsoil that was graded and seeded with grass. The instruments and data cables protruding from the ground are the only remaining evidence above the ground surface that the wall is present at the site.

3.4 Results and Discussion

The results presented herein are focused primarily on (1) the index properties of the as-mixed backfill measured in the laboratory using the grab samples collected during construction, and (2) the trench and backfill monitoring data (i.e., inclinometer surveys, backfill settlement monitoring, and backfill state of stress measurements) collected during the construction period and up to 580 days after completion of the wall. Water levels also were monitored in the wells adjacent to the wall (see Fig. 3-2), and limited in-situ testing of the backfill (vane shear and dilatometer testing) also has been performed.

3.4.1 Backfill Properties

3.4.1.1 Index Properties

Index properties were measured in the laboratory with remolded grab samples collected from the surface during construction and with un-disturbed samples collected from within the wall after construction. Figure 3-7 is a cross section of the Montandon SB wall showing the location of sample collection for each index test performed.

Grain-size distribution (GSD) curves for grab samples of the backfill collected at fourteen locations along the wall alignment and one post-construction boring are shown in Fig. 3-8 along with the three GSD curves for grab samples of the base soil used to prepare the backfill. The results in Fig. 3-8 are the gradation curves for samples collected along the entire wall alignment and illustrate the high degree of backfill homogeneity achieved during construction, due to both the efficacy of the field mixing process and the use of imported base soil that exhibited a consistent gradation throughout the project. The fines contents of the base soil and backfill samples ranged from 44-57 %, and clay contents (fraction finer than 0.002 mm) ranged from 13-20 %. Because no dry bentonite was added to the backfill prior to mixing, the bentonite comprised only ~1.4 % of the overall solids content of the backfill (i.e., the contribution of bentonite from the slurry). Thus, the base soil was the source of nearly all of the fines in the backfill. Atterberg limits tests on the base soil and backfill samples yielded liquid limits of 16-18 % and plasticity indices of 6^{-7} %. Thus, the samples classified as either SC-SM or CL-ML based on the Unified Soil Classification System (ASTM D2487).

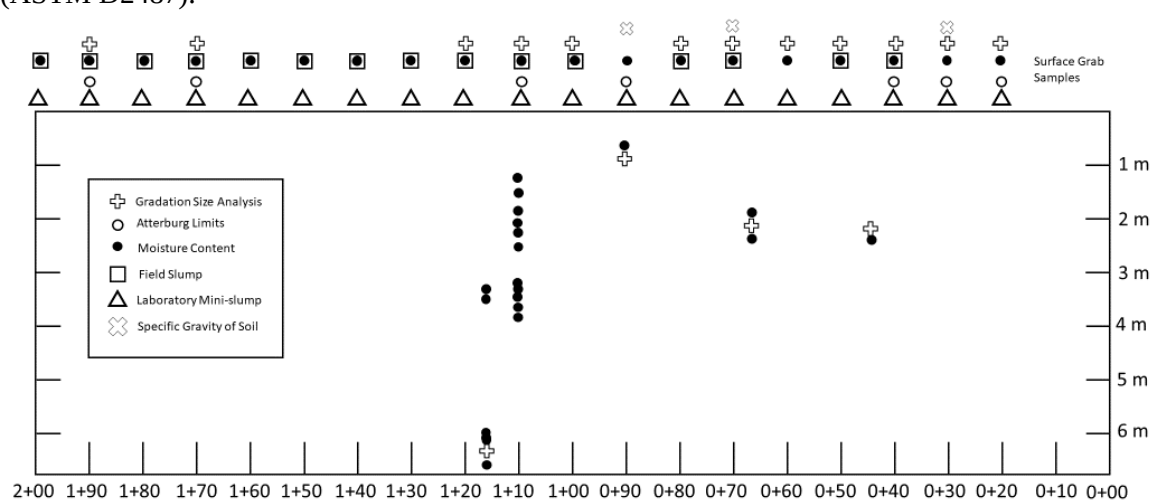


Figure 3-7. Cross section of Montandon SB wall with locations of sample collection for index testing.

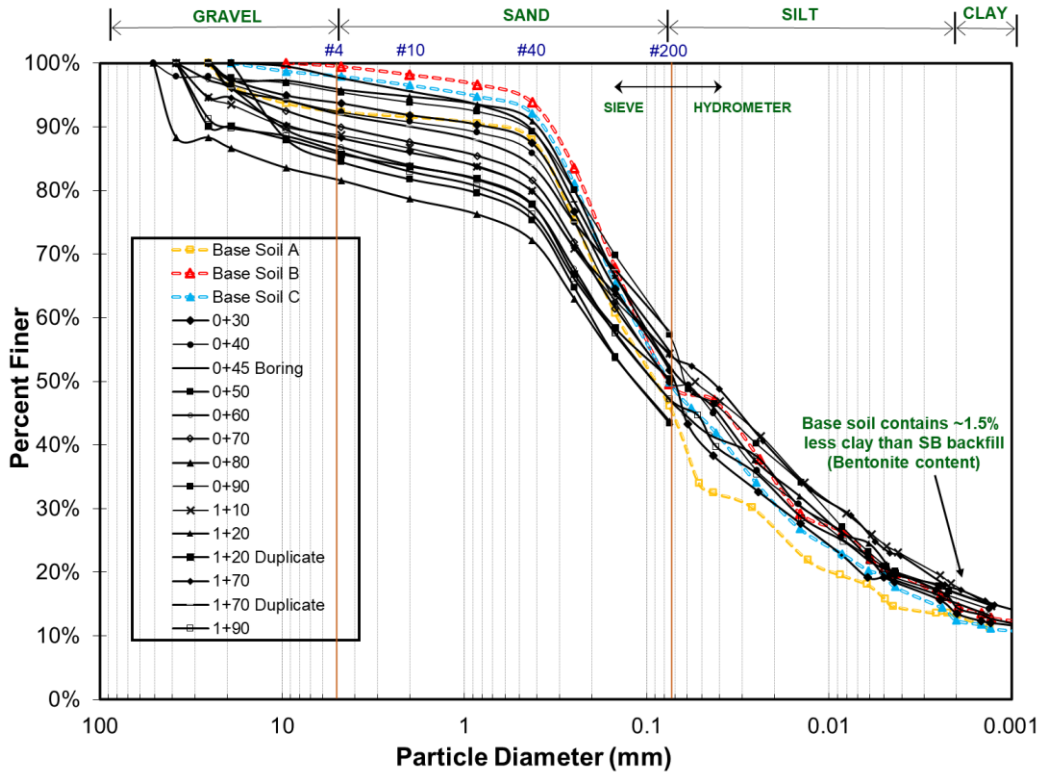


Figure 3-8. Grain size distributions of base soil and backfill samples collected during and after construction. Legend indicates the stations where the backfill samples were collected.

3.4.1.2 Slump

A common method of quality control for SB cutoff walls is to measure the slump of the backfill during construction. During construction, the slump was measured by the contractor using the standard procedure and slump cone used for concrete testing (ASTM C143). Also, slump was measured on each grab sample with a miniature slump cone that requires a much smaller sample size than the standard cone (3,636 cm^3 versus 21,991 cm^3; see Malusis et al. 2008). The miniature cone method is useful for slump testing in the laboratory.

The results in Table 3-2 show the measured values of standard and miniature slump along with calculated values of standard slump from the miniature slump data using the empirical correlation given by Malusis et al. (2008). The measured standard slumps ranged from 76 to 152 mm, whereas the calculated standard slumps ranged from 84 to 158 mm. The measured and calculated slumps compared reasonably well (see Fig. 3-9), although some scatter is evident, likely due at least in part to the fact that the samples used to measure the standard slump by the contractor were not the same as the grab samples used to measure the miniature slumps (the samples were typically collected from near the same location and at approximately the same time as the field slump was conducted).

Table 3-2. Measured slumps for SB backfill using both standard (ASTM C143) and miniature slump cones, along with calculated values of standard slump from the miniature slump data based on Malusis et al. (2008).

Sample Location (m)	Measured Standard Slump, (mm)	Calculated Standard Slump, (mm)[1]	Measured Miniature Slump, (mm)
0+20	--	102	34
0+30	--	100	33
0+40	102	84	21
0+50	152	142	63
0+60	--	110	40
0+70	114	105	36
0+80	76	85	22
0+90	--	118	46
1+00	140	110	40
1+10	114	99	32
1+20	127	113	42
1+30	152	158	74
1+40	127	124	50
1+51	76	117	45
1+60	76	93	28
1+70	--	100	33
1+80	76	96	30
1+90	82	86	22
2+00	--	125	51

[1] Computed using $S_{sc} = 60 + 1.8S_m$ (Malusis et al. 2008).

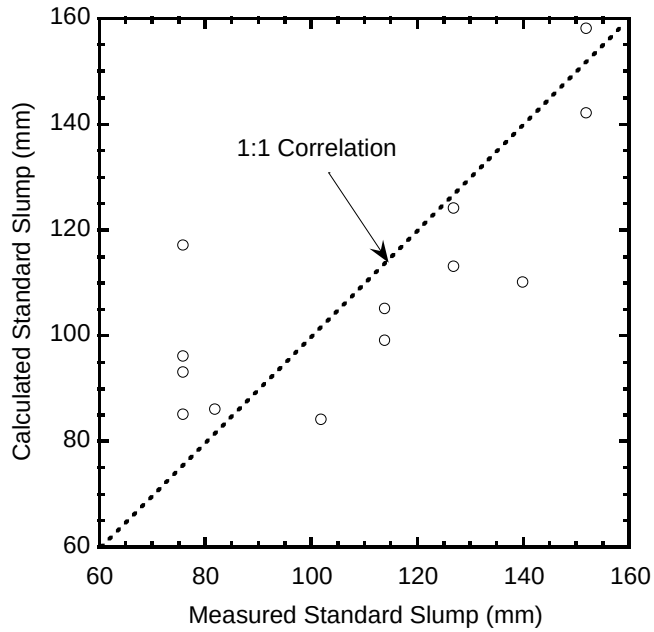


Figure 3-9. Correlation between measured standard slump and calculated standard slump for Montandon SB backfill.

3.4.2 In-Situ Stress Measurements

Direct measurements of total stress (in three directions) and pore pressure within the backfill at the locations of the earth pressure cages (i.e., Stations 0+84 m and 0+75 m) are shown as a function of time in Fig. 3-10. At the time backfilling was completed, the total stresses at a given depth were approximately equal to the weight of the overlying backfill (i.e., geostatic) and were reasonably isotropic (i.e., horizontal and vertical total stresses were similar). These observations are consistent with the fact that the backfill is placed as a thick viscous liquid. Over time, as the backfill undergoes primary and secondary consolidation, the total stress declines as the load is transferred through shear to the sidewalls of the trench (note that the "blips" in the time history relate to stresses caused by site activities such as placement of soil cover, final grading, and seeding). Likewise, pore pressures dissipated along a similar time line as the total stresses. Just as in a consolidation test when a new load is applied, the load represents a change in total stress, but initially the load is carried by the pore water (resulting in excess pore water pressure). With time, the excess pore water pressure dissipates and the load is transferred to the soil grains, resulting in an increase in effective stress.

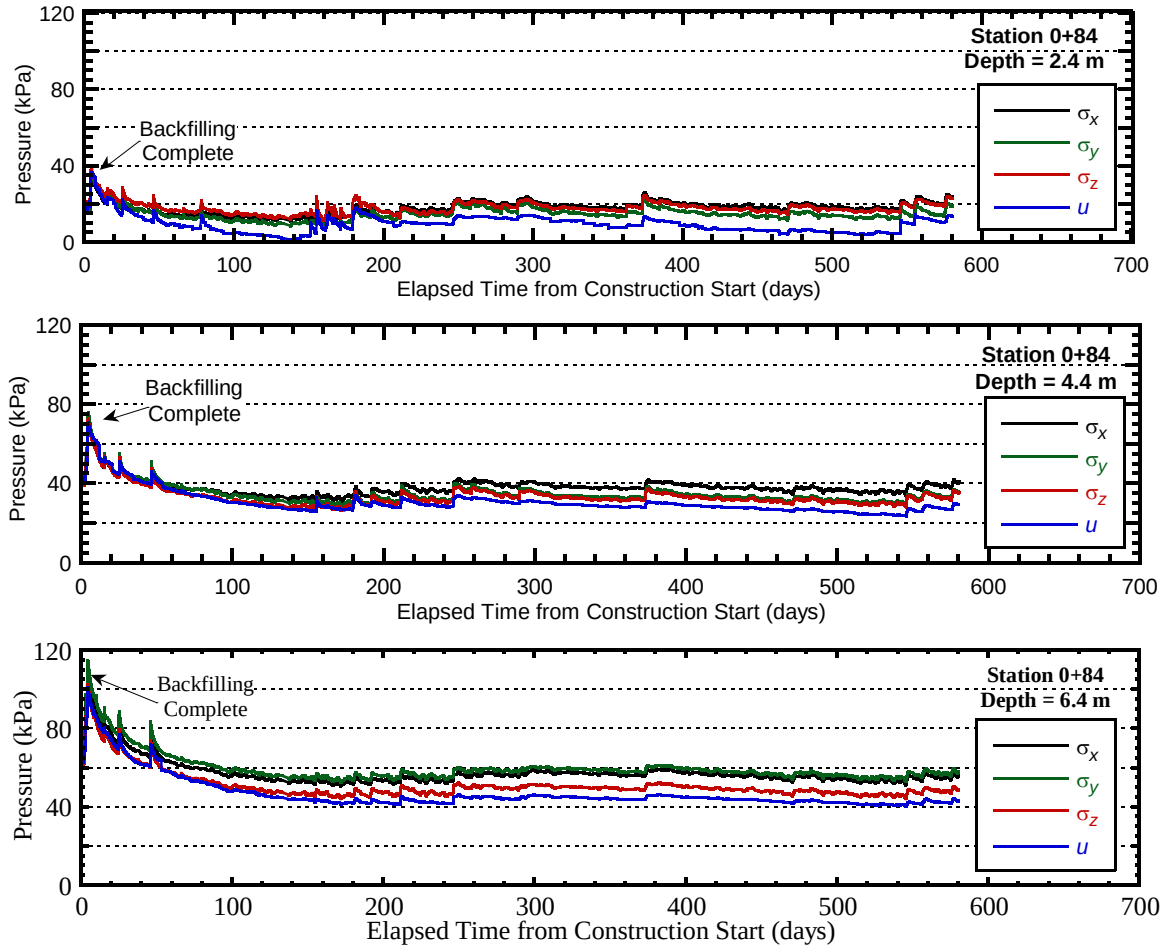


Figure 3-10. Results of total stress and pore pressure monitoring in the backfill at earth pressure cage locations (station 0+84 m); σ_x = horizontal (transverse) total stress; σ_y = horizontal (longitudinal) total stress; σ_z = vertical total stress; u = pore water pressure.

Shown in Fig. 3-11 are the total stresses and pore water pressures at five separate times (i.e., 0, 60, 120, 365, and 575 days after construction) as a function of depth at station 0+84 m. These data show linearly increasing total stresses and pore pressures with depth at a given time, and decreasing total stresses and pore pressures with time at a given depth. As shown in Fig. 3-11, all measured vertical stresses are less than the theoretical geostatic vertical stress computed based on the self-weight of the backfill (i.e., $\sigma = \gamma * z$, where z is depth and the saturated unit weight, γ, of the backfill is 18.9 kN/m^3) due to load transfer from the backfill to the adjacent formation. Illustrated in Figure 3-12 is the effective stress as a function of depth in three directions (x,y,z) at the same five dates shown in Fig. 3-11. The effective stress has increased with time at all depths and orientations, the vertical effective stress (σ_z') has increased the least over time, and is does not increase with depth. The longitudinal (σ_y') effective stress increases at depth the most and the transverse effective stress (σ_x') increases with depth modestly.

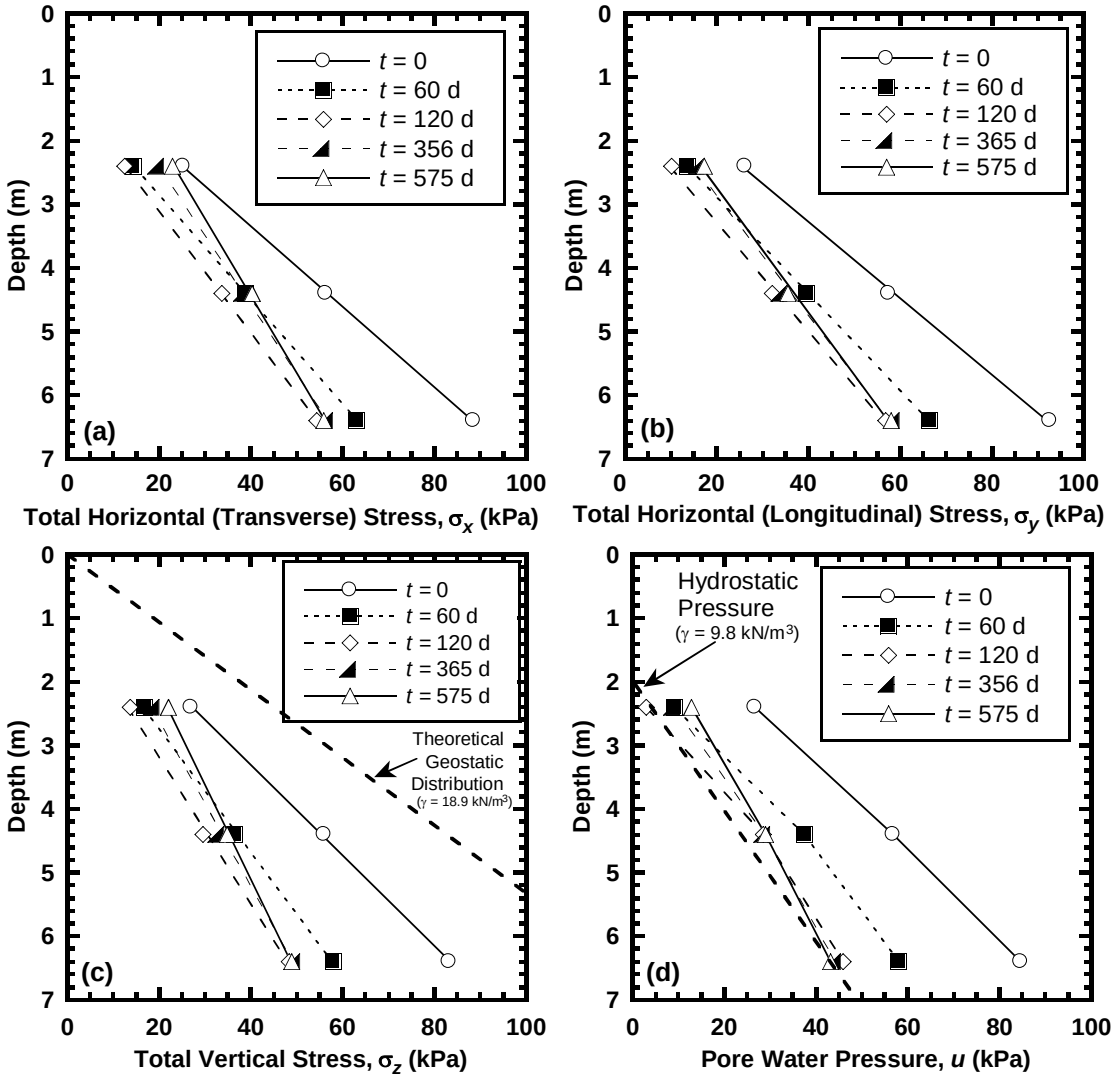


Fig. 3-11. Distributions of total stress (σ) and pore water pressure (μ) measured at station 0+84 m immediately after construction (t = 0) and at 60, 120, 356, and 575 days after construction.

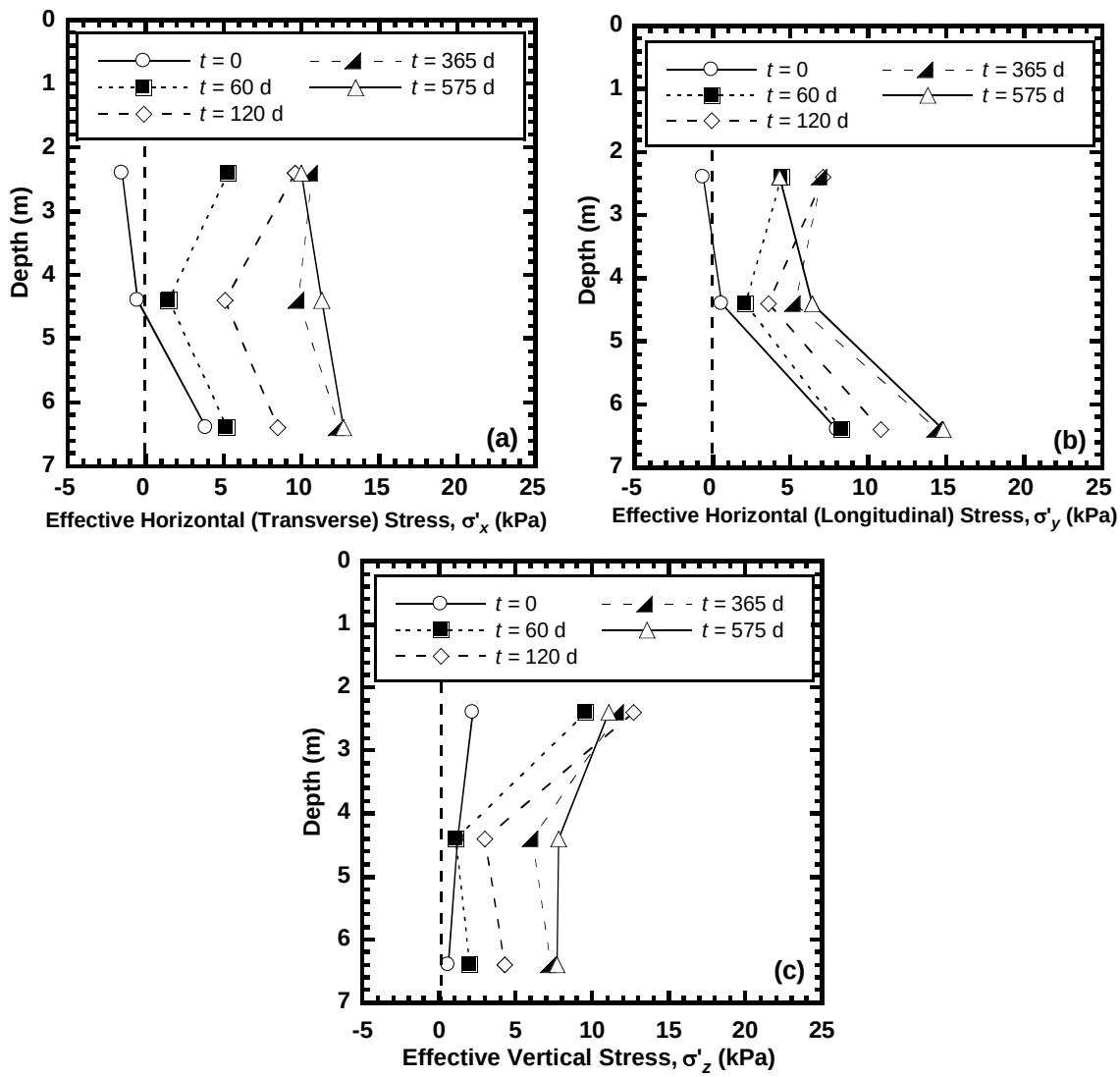


Figure 3-12a,b,c. Distributions of effective stress (σ') measured at station 0+84 m immediately after construction (t = 0) and at 60, 120, 365, and 575 days after construction.

The results in Figure 3-13 show the effective stress history of the Montandon SB wall in each direction at each of the three cage locations for the first 20 months after completion of backfilling. The effective stress has been corrected to compensate for the orientation of the cages relative to the orientation of the wall and has been filtered to smooth any sharp variations in readings. These in-situ stress measurements indicate that the effective stress within the wall is low, far less than a geostatic stress distribution. The effective stress in the wall appears to have reached equilibrium with the exception of the upper wall (i.e., the 2.4 m cage) where the water table fluctuates above and below the sensors.

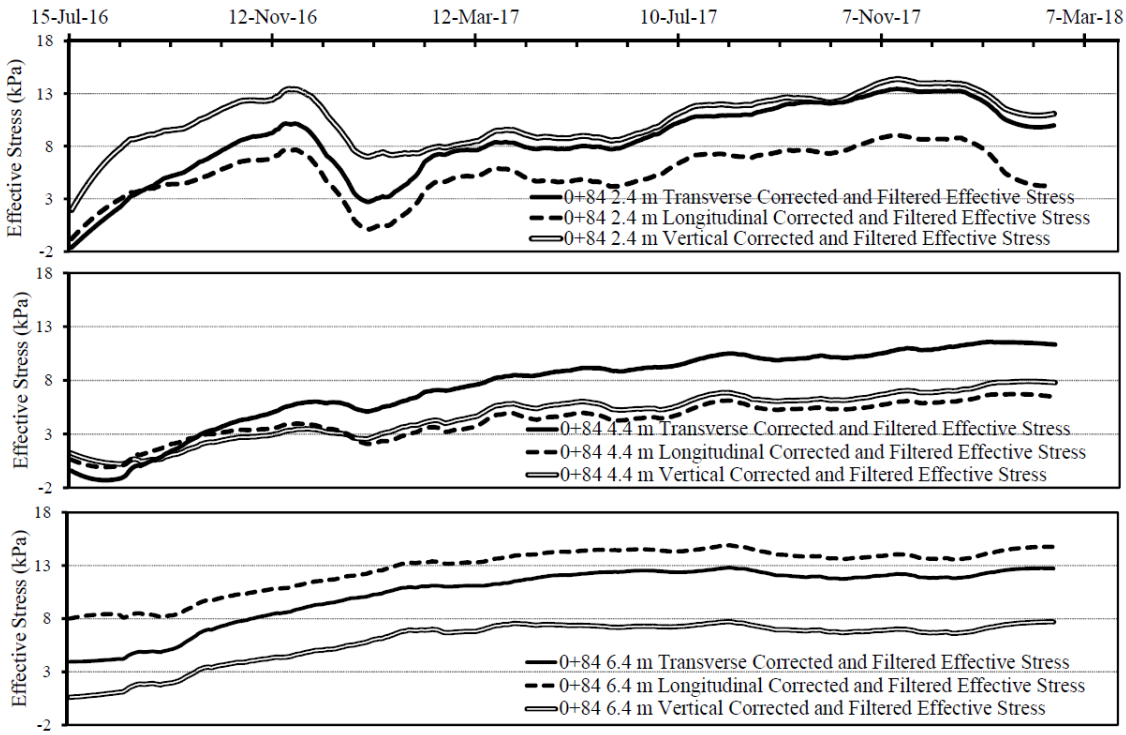


Figure 3-13. Effective stress measurements in the horizontal (transverse), horizontal (longitudinal), vertical directions during the first 20 months after construction.

The data shows marginally anisotropic stress distribution at each cage location. The vertical effective stress is lower than the horizontal effective stress in all locations except the 2.4 m depth where the soil cover adds vertical loading. The higher horizontal effective stress is explained by lateral squeezing of the sidewalls while the low vertical effective stress is the result of the arching mechanism from load transfer to the sidewalls. The small anisotropy of stress suggests that the vertical and horizontal hydraulic conductivities *(k)* are likely similar (k data are presented in Chapter 4).

Effective stresses remain very low (i.e., ≤ 15 kPa in all directions and ≤ 8 kPa in the vertical direction in the lower 2-3 m of the wall) after 575 days, as illustrated in Fig. 3-12. These findings are reasonably consistent with those reported by Ruffing et al. (2011) for another SB cutoff wall constructed with a similar depth. At this site, horizontal effective stresses estimated from dilatometer tests reached ~20 kPa in the backfill after 90 days of service. However, the slow rate of change in effective stress evident from the data in Figs. 3-11, 3-12, and 3-13 suggests that the effective stresses in the backfill at this site will likely remain below 20 kPa long into the future.

3.4.3 Deformation Measurements

3.4.3.1 Settlement Plates

Backfill settlement from the four settlement plates is shown in Fig. 3-14 and represent the time rate of backfill consolidation in the field. The shape of these curves is generally consistent with the shape of those typically obtained in laboratory consolidation tests. The results indicate that primary consolidation was largely complete after two to three weeks, but secondary consolidation (creep) continues. Calculations of time to 90 % consolidation using laboratory data (not shown) from the oedometer test on a Shelby tube sample collected from the wall at station 0+45 m compared well with similar calculations based on the field settlement data in Fig. 3-14. An interesting aspect of this comparison is that the calculations were made assuming the horizontal direction as the shortest flow path and did not consider the possible presence of a bentonite filter cake at the interface between the backfill and the native formation along the trench sidewalls. The extent to which the filter cake remains intact during backfilling remains a lingering question for future consideration.

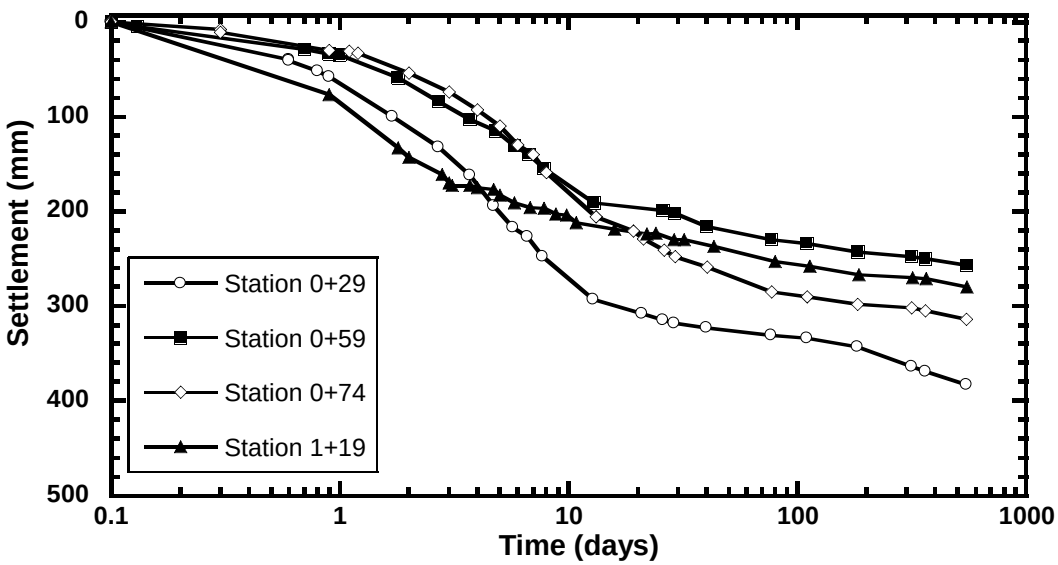


Figure 3-14. Vertical settlement over time measured at the surface at four locations along the wall alignment.

3.4.3.2 Inclinometer Surveys

Four pairs of inclinometers were installed prior to trench excavation by drilling 200-mm diameter borings using hollow stem augers advanced with an Acker Soil Scout track-mounted drill rig. After installing the inclinometer tubing through the hollow stem auger, very low strength cement-bentonite grout was placed into the annulus with the tremie method as the augers were withdrawn. Once the grout had cured a minimum of 14 days, baseline readings were obtained (prior to construction). Readings were obtained at key times during construction of the wall (e.g., during excavation, backfilling, consolidation) and continue to be collected over time as the backfill continues to settle and stresses continue to change in the backfill and correspondingly in the adjacent formation. Representative results, shown in Figure 3-15 (a-h) for all sets of inclinometers installed (Stations 0+30, 0+60, 0+90, 1+20 m) illustrate that lateral displacements in the adjacent soil occur inward (toward the trench) during excavation, then slightly outward (away from the

trench) during backfill placement, and then progressively inward over time as the backfill undergoes primary and secondary consolidation. For example, after 575 days from completion of the wall, cumulative lateral displacements (both sides) of approximately 63 mm have occurred near the ground surface at station 0+60. The displacements generally decrease with depth (notwithstanding the slight bulge in the displacements at depths of 4-6 m) and decrease to nearly zero as the depth approaches 7 m (i.e., the bottom of the wall). The bulge at 4-6 m is attributed to a soft oversaturated flowing sand in the adjacent formation at the same elevation.

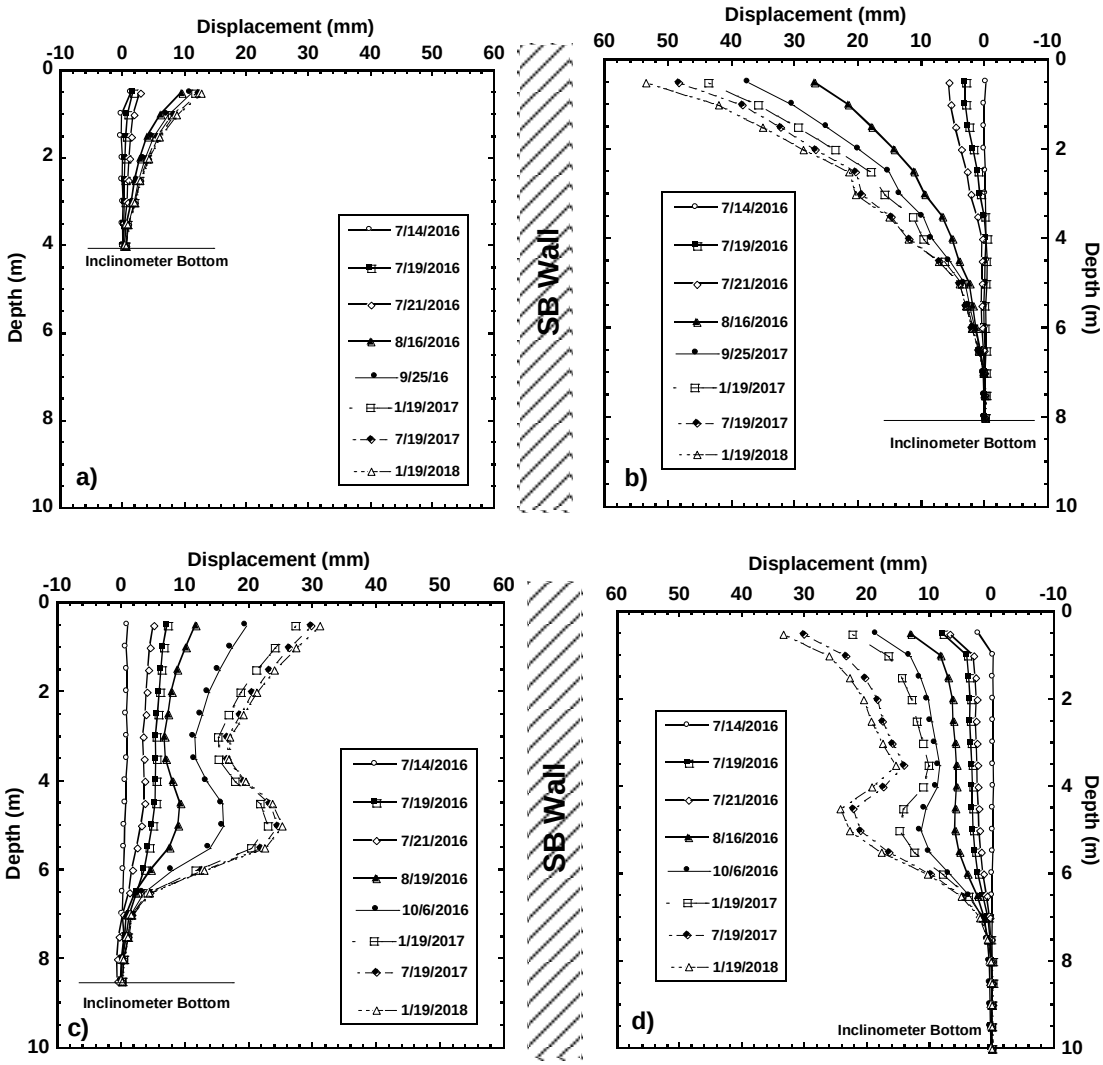


Figure 3-15. a,b) Inclinometer surveys at Station 0+30 m on the west (left), and east (right) side of the Montandon SB wall; c,d) Station 0+60 m.

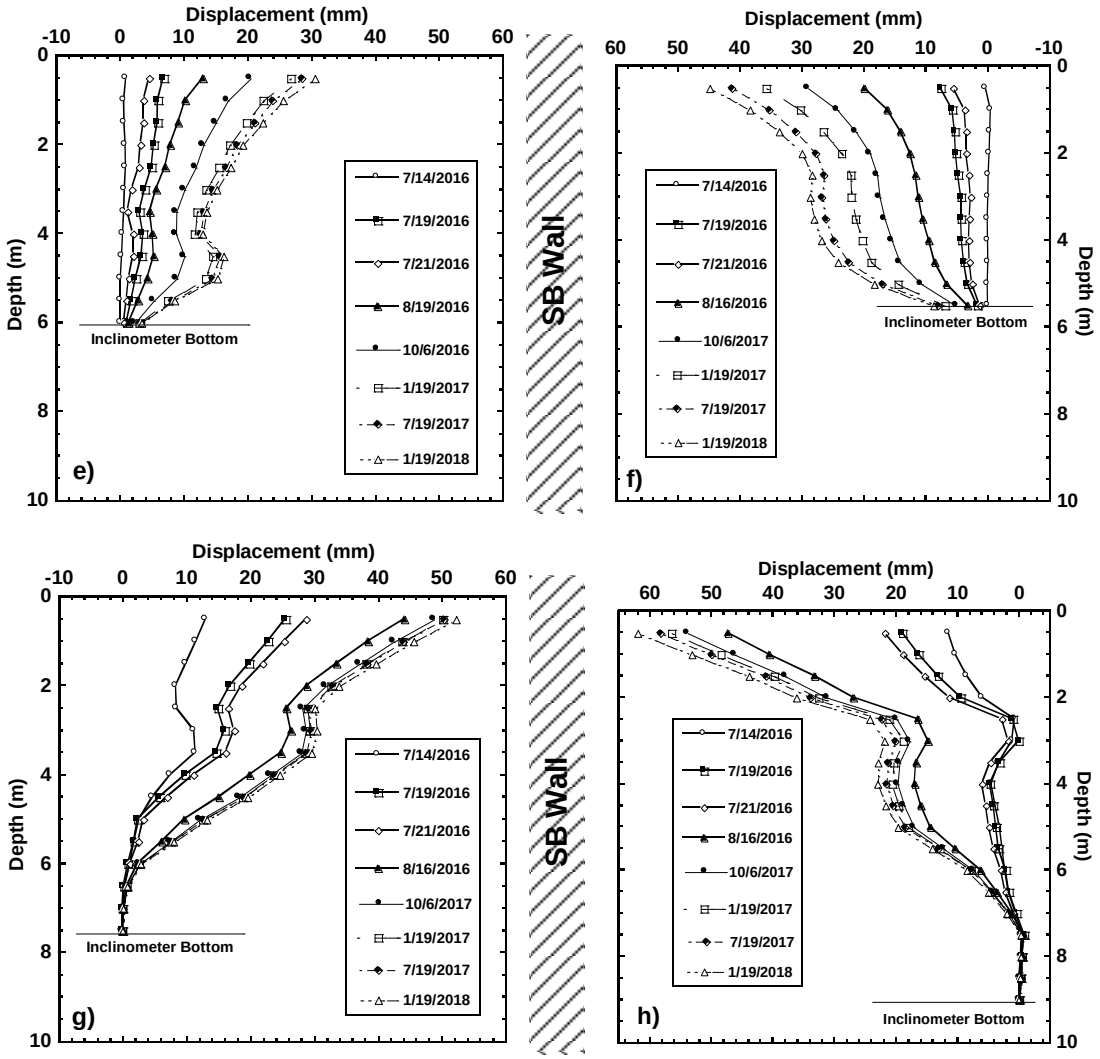


Figure 3-15. e,f) Station 0+90 m on the west (left), and east (right) side of the Montandon SB wall; g,h) 1+20 m

The depth of the wall from the ground surface is 6.5 to 7.1 meters, to obtain a reliable record of horizontal displacement in the wall the inclinometer should be anchored below the bottom of the wall as is the case in most of the inclinometers installed. The west side inclinometer at station 0+30 and both sides at station 0+90 encountered rock or some obstruction during installation, it is likely that the true inward displacement is slightly greater than what is observed in the inclinometers that are anchored higher than the bottom of the wall.

The rate of consolidation has slowed on a log time scale the same as the settlement plate data. As time goes on the rate of consolidation decreases, yet the consolidation continues even after nearly two years.

A plan view perspective of the inclinometer data is presented in Figure 3-16 showing the total displacement after 575 days at each location with different depths plotted as individual series. The greater inward consolidation of the upper wall can be attributed to water draining from the wall above the regional water table. The difference between stations is likely explained by the inclinometers that do not reach the bottom of the wall, or possibly differences in the slump/moisture content of the backfill when placed.

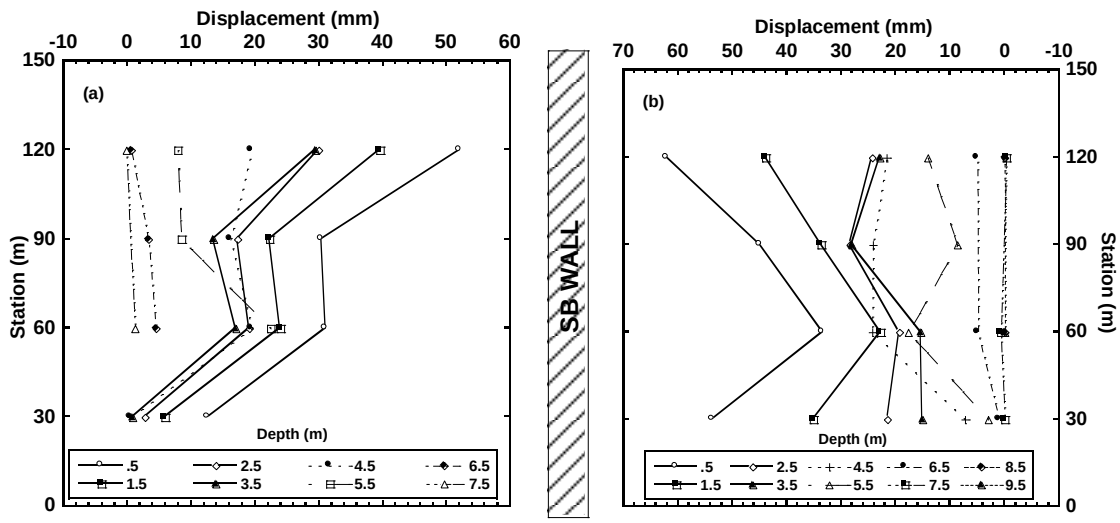


Figure 3-16. Total displacement 575 days after construction at various depths for each inclinometer on a) west side of wall and b) east side of wall.

Inclinometer readings were recorded frequently before, during, and after construction, to date measurements have been obtained from all eight inclinometers from bottom to top in 0.5 m increments a total of 32 times. Many of the readings occurred during or directly after construction of the SB wall. The total strain (total displacement from both sides/width of wall at t=0) across the wall recorded in the 0+60 and 0+90 inclinometer sets is shown in Figure 3-17a,b for each reading available (0.5 m depth increments have been averaged into 1.0 m increments). The time starts (t=0) the day prior to excavation, the strain is most notable in the upper wall, but the strain at the 5 m depth at 0+60 is higher than most depths. As the excavation occurs the bentonite slurry supports the trench sidewalls, some inward displacement is observed. When the SB backfill is placed in the trench the sidewalls rebound outward, but do not reach the pre-excavation position. After backfilling is complete, primary and then secondary consolidation occur. The inclinometers record the position of the displacement at each time for each depth and location. In Figure 3-17a,b the time is on the x-axis in log-scale, the strain rate on this semi-log scale is steady. One observation of Figure 3-17 is how much of the strain occurs between 20 and 100 days.

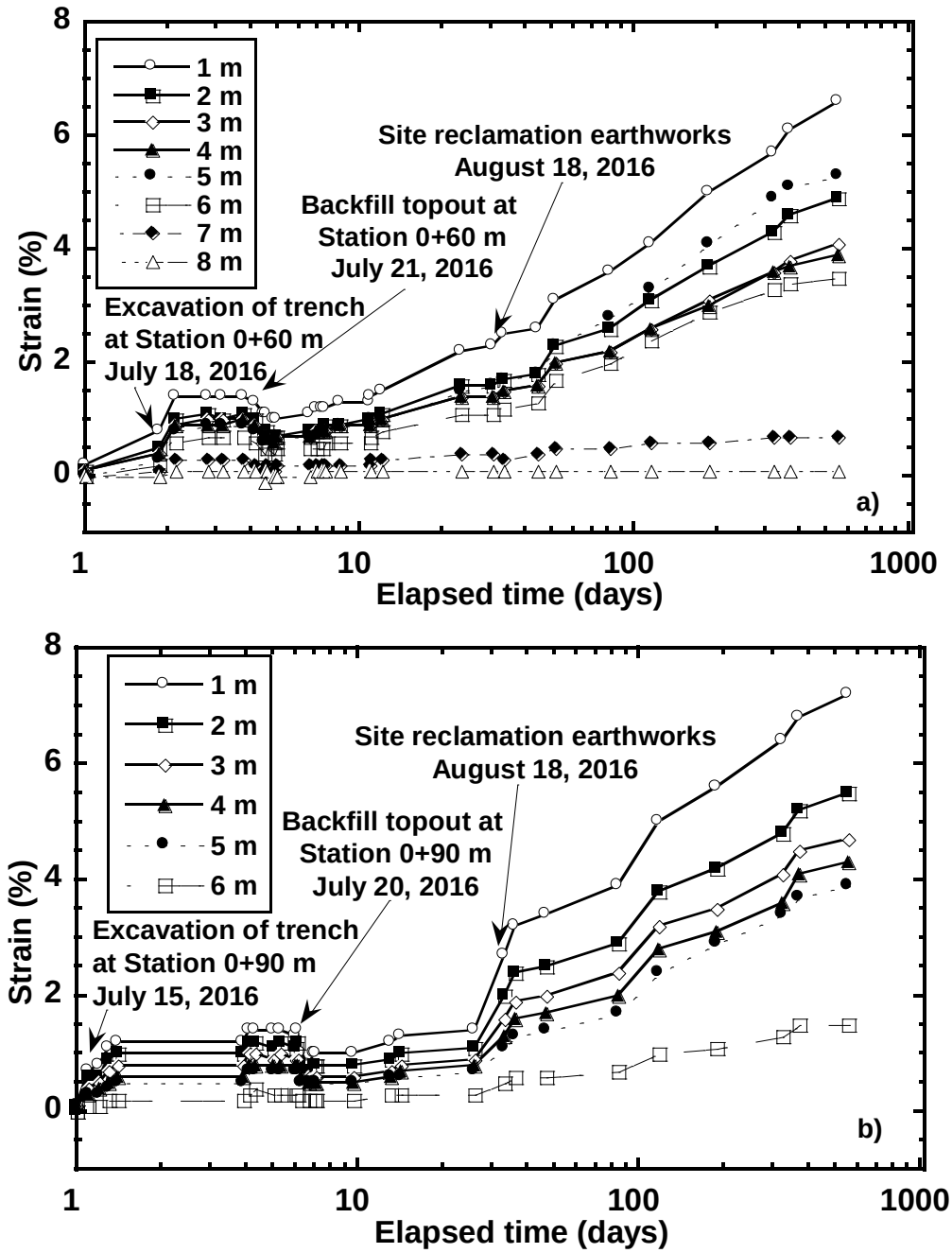


Figure 3-17. Total lateral consolidation measured as strain for various depths at a) Station 0+60 and b) Station 0+90

To better understand the inward displacement shown as strain is Figure 3-17, the displacement measured from four inclinometers (east and west sides of 0+60 and 0+90) has been averaged together at 1.0 m depth increments and plotted versus time on a log scale in Figure 3-18. The results again show the most displacement in the upper wall and at 5 m. The excavation, rebound after backfilling, and consolidation stages are all evident in Figure 3-18.

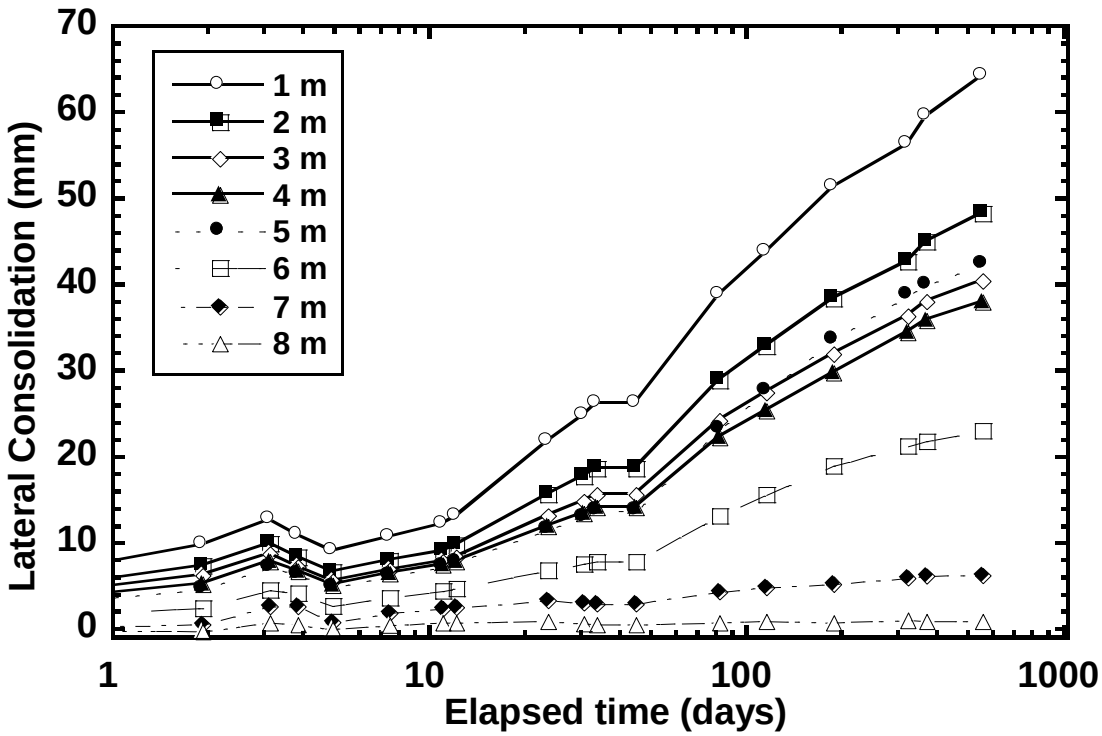


Figure 3-18. Total average lateral consolidation measured as displacement from Stations 0+60 and 0+90 at various depths.

The final plot of consolidation measurements from the Montandon SB wall is Figure 3-19. This plot includes the average measurements from the 0+60 and 0+90 inclinometers and the average measurements of two settlement plates (0+50 and 0+74) all plotted as strain. The initial wall height is assumed to be 6,300 mm and the initial width to be 900 mm. The total strain in the vertical direction plots in the middle of the horizontal direction strain (i.e., the average horizontal strain from all depths is nearly equal to the vertical strain). The consolidation in the vertical and horizontal direction reflects the effective stress state discussed above.

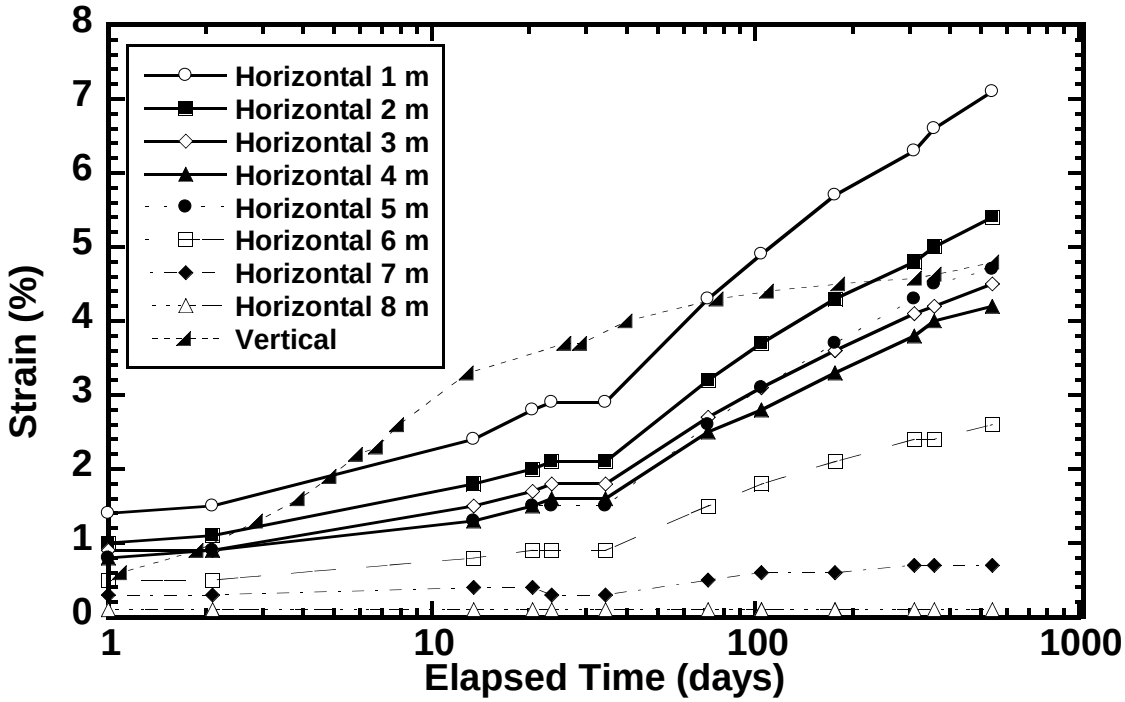


Figure 3-19. Average strain measured vertically (surface) and horizontally (various depths) between Stations 0+60 and 0+90.

3.4.4 Adjacent Groundwater Monitoring

Monitoring wells installed adjacent to the Montandon SB wall provide continuous measurements of the water level on each side of the wall at four locations along the wall (Stations 0+30, 0+60, 0+90, 1+20 m). The monitoring well data has been processed to provide an accurate elevation of the adjacent water table at each monitoring well location. The difference in elevation of the water table across the wall is of interest for understanding the effectiveness of the wall as a hydraulic barrier. Figure 3-20 shows the difference in water elevation at the four pairs of monitoring wells.

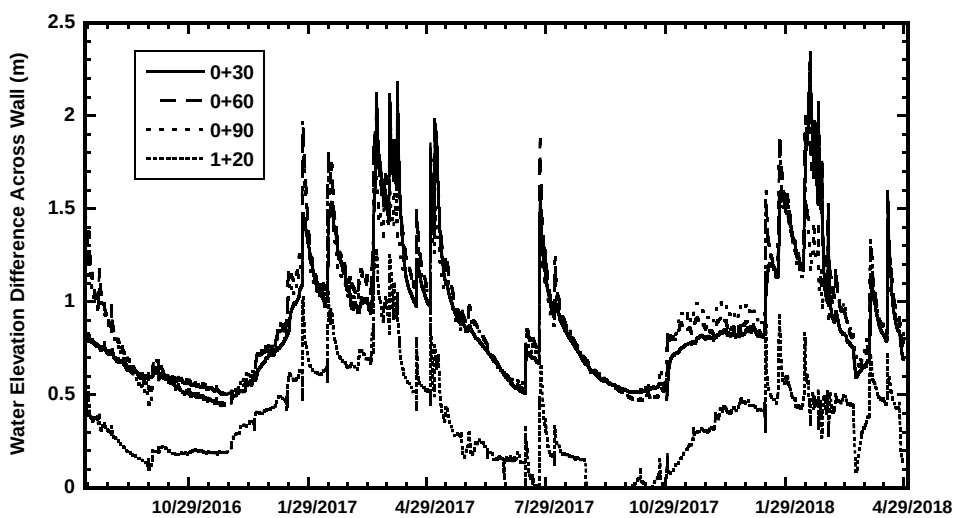


Figure 3-20. Difference in water elevation (m) across Montandon SB wall (east side-west side) over 22 months.

The record of the hydraulic head across the wall at each of these locations indicates that three of the four locations are nearly identical in the elevation difference of the water table across the wall. Stations 0+30, 0+60, and 0+90 all indicate the wall is acting as a hydraulic barrier, the spikes can be correlated with precipitation events or runoff from snowpack, the valleys showing low hydraulic head across the wall are all during dry periods when the wetland to the east was not recharged. The clear outlier is the pair of wells at station 1+20, the wall has held a consistently lower hydraulic head in this northern location. Interestingly the wall shows nearly the same response to precipitation events, but the spikes are a bit smaller. Reviewing the information regarding the key in for the wall reveals that the backfill was placed on cobbles and pinnacled limestone north of station 1+20. The lack of a key into a low *k* formation will cause water to flow beneath the wall and reduce the effectiveness of the barrier significantly.

3.5 Summary and Conclusions

This paper presents the design, construction and preliminary results from a soil-bentonite slurry trench cutoff wall built for the express purpose of conducting research on the short- and long-term behavior of these systems. The wall (approximately 200 m long, 7 m deep and 0.9 m wide) was successfully constructed using quality control measures consistent with professional practice. Substantial monitoring of the wall was undertaken during and after construction using inclinometers, settlement plates, monitoring wells, and sensors to measure in situ stresses and pore water pressures. The results for the 575 days after construction show that the backfill continues to undergo secondary compression and load transfer to the adjacent formation, resulting in continued slight decreases in total stress. Total stresses in the wall are considerably lower than would be predicted by assuming a geostatic stress distribution in the backfill. Effective stresses in the backfill are increasing gradually over time as excess pore pressures dissipate, but remain very low (≤15 kPa) after 575 days and are likely to remain low long into the future. Inclinometer results show that progressively inward displacements are continuing to occur adjacent to the wall, indicating progressive lateral squeezing of the backfill. Settlement plates show progressive downward displacement. Both vertical and horizontal deformation of the wall is progressing at a very slow rate 575 days after construction. Pore pressures continue to fluctuate seasonally.

Monitoring will continue in the months and years ahead. The data will be used to evaluate existing and newly developed models for predicting stress and strain development in soil-bentonite cutoff walls. In addition, an intensive program of in-situ testing and sampling will be conducted to investigate variability and changes in the hydraulic and strength properties of the backfill as a function of location, depth, scale, and time. Finally, research is ongoing in the geophysical testing section of the wall to investigate the electrical resistivity and other methods for a viable technique to non-destructively identify the presence of defects in the wall. These are the primary areas of focus for the ongoing research at this site.

4 ASSESMENT OF SOIL-BENTONITE HYDRAULIC CONDUCTIVITY

4.1 Introduction

Soil-bentonite (SB) cutoff walls, or vertical barriers backfilled with bentonite-admixed soil, are widely used in the US for long-term hydraulic and geoenvironmental containment applications. In these applications, the effectiveness of the wall is governed largely by the hydraulic conductivity *(k)* of the SB backfill, and designs generally specify a low backfill *k* of $\leq 10^{-6}$ cm/s or $\leq 10^{-7}$ cm/s. During construction, backfill *k* typically is verified by means of a quality control/quality assurance (QC/QA) testing program in which small-scale (70-100 mm diameter) laboratory *k* tests (usually flexible-wall tests via ASTM D5084) are conducted on remolded specimens prepared from surface grab samples of field-mixed backfill. The results of these tests may not be representative of the in-situ backfill *k*, particularly if the applied stress state on the specimens is not representative of the in-situ stress state. The in-situ stress distribution within an SB wall is rarely measured, difficult to predict, and impacted by complex load transfer mechanisms. Also, laboratory tests on remolded specimens are inadequate for verifying the absence of defects created while backfilling or for determining post-construction changes in *k*.

These limitations of conventional QC/QA programs are compelling reasons for conducting post-construction assessments of the in-situ *k* of SB cutoff walls based on field testing and/or laboratory testing of undisturbed specimens recovered from the wall. Such assessments are rarely performed in engineering practice and have been conducted only to a limited extent in research studies. A notable set of studies was conducted by Britton et al. (2004, 2005), which evaluated field and laboratory methods to measure *k* of a small (20.4-m-long, 2.8-m-deep, 0.6-m-wide) pilot-scale SB cutoff wall. They found that laboratory *k* values obtained from remolded specimens were consistently lower than laboratory *k* values obtained from undisturbed specimens and lower than *k* values obtained from in-situ measurements (i.e., piezocone, slug, and pumping tests). The results of the Britton et al. (2005) study, although limited in size and scope, indicate that a more comprehensive investigation of field *k* assessment methods for full-scale SB cutoff wall installations is warranted.

Researchers at Bucknell University have constructed and instrumented a 200-m-long, ~7-m-deep, and 0.9-m-wide SB cutoff wall near Lewisburg, PA for the purpose of studying the SB properties, behavior, and variability at the field scale. The primary objective of this chapter is to present the results of a post-construction assessment of backfill *k* within Montandon SB wall and to compare field (in situ) measurements of *k* based on slug tests with laboratory measurements of *k* performed on both remolded and undisturbed specimens. Lessons learned from this study pertaining to the use of slug tests to measure backfill *k* in full-scale SB cutoff wall installations are discussed.

4.2 Background

The SB cutoff wall site is located in Montandon, PA, approximately 3 km east of the Bucknell campus (see Figure 3-1). The wall was installed in an alluvial deposit on the property of a local sand and gravel quarry, adjacent to a natural wetland known as the Montandon Marsh (Figure 3-2c). The wall was constructed using conventional slurry trenching, with sodium bentonite slurry (5-6 % bentonite by mass) used for hydraulic shoring and backfill mixing. The backfill was prepared by mixing imported base soil (stockpiled clayey sand excavated from other areas of the site) with slurry to achieve a slump of 75-150 mm prior to backfilling. Quality control testing included multiple daily soundings of the trench bottom, slurry quality testing (viscosity, filtrate loss, density, and pH), and backfill slump. Grab samples (10-20 L) of the field-mixed backfill were collected from the surface every 10 m along the length of the wall, for a total of 20 grab samples. Chapter 3 includes a complete background of the Montandon research site.

Stationing was used to delineate position along the wall alignment, with the southern end of the wall located at Station 0+06 m and the northern end at Station 2+07 m. This study considers the entire length of the wall extending from Station 0+07 m to Station 2+00 m. Gradation, slump, and moisture testing of backfill grab samples collected during construction indicate that the backfill is reasonably homogenous in terms of gradation (see Chapter 3).

The Montandon SB cutoff wall underwent progressive densification and dissipation of excess pore pressure as consolidation occurred. At 24 months, the measured effective stresses in the Montandon SB wall appear to have reached equilibrium (see Figure 3-13) encompassing a range of 8 to 15 kPa; the mean effective stress is 11.5 kPa. The pressure sensor at 2.4 m depth continues to measure fluctuations in the effective stress (10-13 kPa) that are attributed to fluctuations of the regional water elevation. All of the pressure sensors below 2.4 m are indicating steady effective stress in all three orientations (σ_x', σ_y', σ_z'). Pressure readings from the middle and lower wall May- June, 2018 indicate no overall change in effective stress and fluctuations of less than 0.2 kPa. Any increase of the effective stress in the wall in the future is likely to be gradual. The low vertical effective stress measured in the Montandon SB wall is consistent with estimations obtained from the arching model (Evans et al. 1995).

Strain measurements indicate progressive consolidation of the SB at a rate slowing exponentially (i.e., steady rate of consolidation on the semi-log scale of consolidation over log time). As shown in Chapter 3 the lateral strain in the wall varies with depth, with the greatest lateral strains generally measured near the top of the wall (see Figure 3-15). The variation of consolidation with depth indicates variation of effective stress.

Understanding how the hydraulic conductivity in SB walls may change with location and over time is critical to understanding the long-term performance of the wall. This study includes comparison of laboratory *k* values from remolded grab samples with laboratory *k* of relatively undisturbed samples taken at various times (3, 6, 20, and 24 months) after construction, and the in-situ *k*. Slug testing with piezometer wells installed within the wall was the method used in this study to measure the in-situ *k*. The post construction sample collection and in-situ testing were performed at different

depths and locations so that spatial variability of *k* could be assessed. Also, relationships between measured *k* values and other backfill properties (e.g., gradation, slump, porosity, and shear strength) were examined to determine what correlation if any exist between these properties and *k*.

Other in-situ methods of measuring *k* in addition to slug tests were attempted, such as piezocone pore pressure dissipation tests and repeated Marchetti Dilatometer (DMT) pore pressure measurements to establish the pore pressure dissipation curves. Neither of these methods were ultimately successful in this study due to limitations of accurately measuring pore pressure and interpreting the dissipation curve, in addition to logistical challenges. As discussed in Chapter 2, piezocone pore pressure dissipation tests of SB backfill have been successful in the laboratory in small samples, yet the logistics of conducting this test in the field require a drill rig, a power source, and a reliable data collection system to record the pore pressure over at least a 48-hour period. The time, equipment, and man power required to conduct piezocone pore pressure dissipation tests in the field were the primary reasons this method was considered unfeasible for this study. DMT is an in-situ test method designed to measure the strength of soil and estimate the in-situ stress. An experimental method of DMT testing (repeated C-value measurements) results in a rough pore pressure measurement. When this method was attempted in the SB wall, pore pressure measurements were not consistent with the pore pressure measured by the RST cages and the precision of the instrument was too poor to observe small changes in pore pressure.

Previous studies (Britton et al. 2004, Choi and Daniels 2006) have successfully used slug tests within SB walls to measure in-situ *k*, although these studies noted a need to refine the method with better installation procedures and more accurate data collection. The 12 piezometer wells installed within the Montandon SB wall were successful in providing reliable measurements of *k* from slug tests.

4.3 Materials and Methods

Samples of SB were collected during construction of the Montandon SB wall every 10 m along the alignment. These samples were used for all remolded laboratory *k* tests. Undisturbed samples were taken from various locations and depths. Slug test wells were installed at various locations and depths along the centerline of the wall. The locations of sample collection for all laboratory *k* tests and the locations of all in-situ *k* tests are illustrated in Figure 4-1. Surface grab samples are representative of the material sloping southward through the trench (i.e., the 1+50 surface grab sample is likely the same material found at 1+10 at ~4.5 m depth). Thus, the grab samples provide a good representation of the backfill composition within the entire wall. Sampling and in situ testing within the wall was limited to the 100-m-long wall section between stations 0+30 and 1+30, so as not to interfere with the geophysical testing work conducted in the section between 1+50 and 2+00.

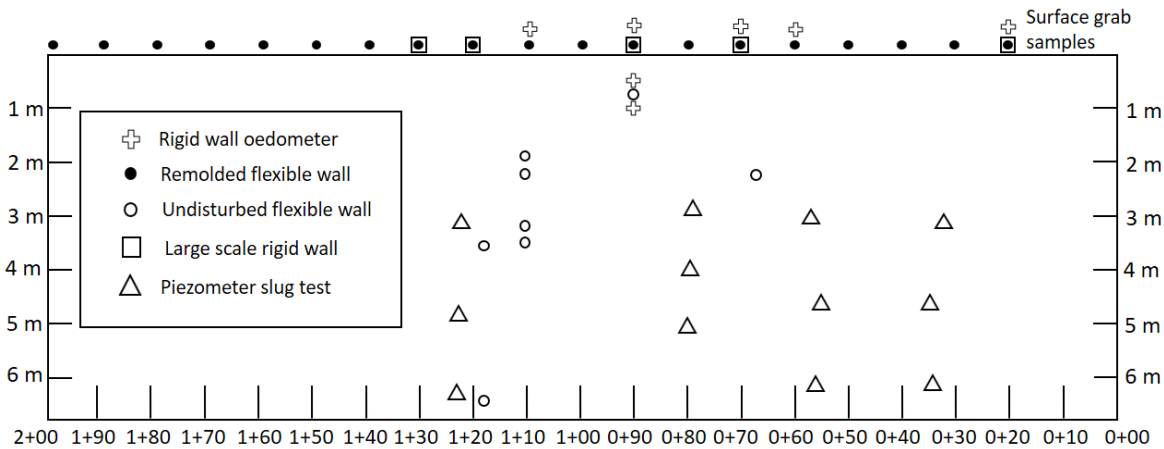


Figure 4-1. Cross-section of Montandon SB wall showing the location of sample collection for laboratory *k* tests and test location of in-situ *k* tests. The symbols located above the ground surface represent tests conducted on remolded specimens prepared from surface grab samples, whereas the symbols located below the ground surface represent in situ (slug) tests or undisturbed sample locations.

4.3.1 Laboratory Tests

4.3.1.1 Flexible-Wall Tests

The hydraulic conductivity *(k)* of ten undisturbed and twenty-six remolded SB backfill specimens were measured in flexible-wall permeameters, in general accordance with ASTM D5084 Method C (falling head-rising tailwater method). The specimens were prepared within a flexible latex membrane (70 mm diameter) within an acrylic mold to support the soft backfill before consolidation. Vacuum was applied to the external inlet on the outside of the mold which is connected to the inner channels machined into the inner surface of the mold, stretching the membrane open for sample preparation. Remolded specimens were prepared by placing backfill in the membrane-mold apparatus in two lifts and rodding each lift as necessary to remove air (gravel larger than 11 mm in diameter was removed visually). The undisturbed specimens were prepared by extruding the backfill from the Shelby tube directly into the membrane-mold assembly to minimize disturbance. The sample lengths ranged from 7.2-8.5 cm and the sample volumes ranged from 277-327 cm^3.

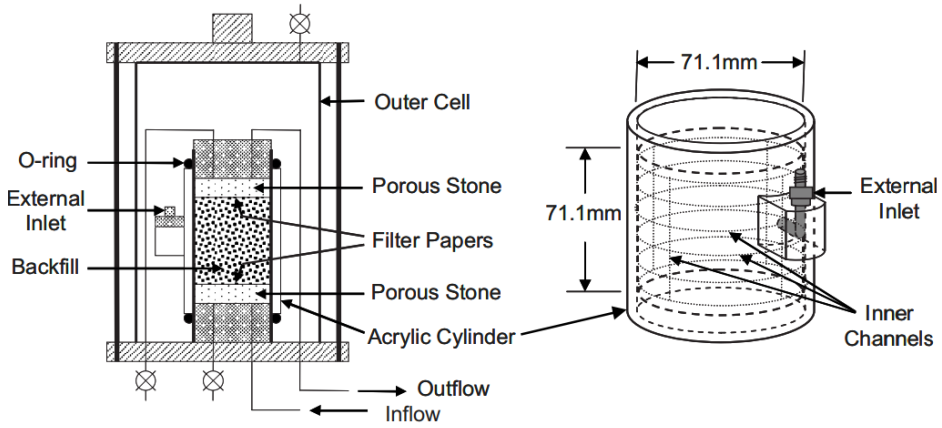


Figure 4-2. Schematic of flexible-wall apparatus used to measure *k* of SB samples (from Malusis et al. 2009).

The hydraulic gradient (*i*) applied across the specimens ranged from 10 to 16, less than the specified maximum of 30, yet greater than the observed gradient in the field of 0.6-1.4. The gradient and initial effective stress applied to the specimens were designed to replicate field conditions as closely as possible. The initial effective stress applied to the sample was 6.9 kPa and was increased in stages (6.9, 13.8, 20.7, 34.5 kPa). The hydraulic conductivity was measured for at least seven days at each effective stress to obtain steady *k* and inflow-outflow balance. The pressures applied at each stage of the test are shown in Table 4-1. Initial and final phase diagrams were prepared for each flexible-wall test specimen, which provide information about the stress-strain relationship for this specific backfill.

Table 4-1. Applied pressure regime for flexible-wall tests.

Cell Pressure (kPa)	Sample Head (kPa)	Sample Tail (kPa)	Avg. Effective Stress (kPa)
34.5	31.0	24.1	6.9
41.3	31.0	24.1	13.8
50.3	35.1	24.1	20.7
64.1	35.1	24.1	34.5

Flexible wall *k* tests were conducted on undisturbed samples collected in the field using thin-walled Shelby tubes attached to a piston sampler. The piston sampler is designed to collect soft or loose material and functions by use of a piston with leather seals within the tube ensuring no air or material can pass between the inner wall of the tube and the piston (see Figure 4-3). The piston is attached to a rod extending up through the top of the tube and a one-way sliding lock.

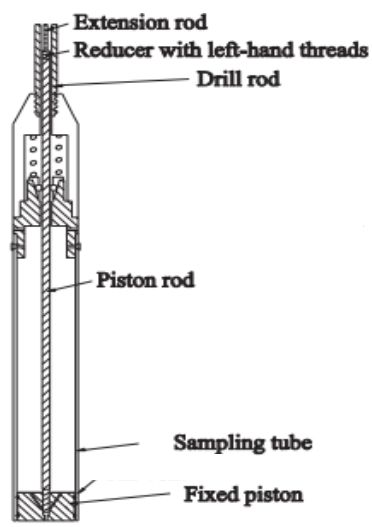


Figure 4-3. Schematic of mechanical piston sampler (from Chung et al. 2014).

The piston remains locked in place at the bottom of the Shelby tube until the desired sample depth is reached, then the piston remains stationary as the tube is slowly advanced downward. In this study all samples collected with the piston sampler had nearly 100% recovery. The tubes used for

sample collection were standard 7.3 cm inner diameter steel tubes (Humboldt Mfg. Co., Raleigh, NC). The tubes have a slight inward cup at the bottom to prevent the sample from sliding out and to reduce side friction within the tube. This slight reduction of the inner diameter (~0.2 cm) at the end of the tube is may cause sample disturbance during collection and extrusion of soft backfill. Britton et al. (2005) used a straight tube with no cutting edge reduction for undisturbed sample collection. The piston sampler was used to collect all ten undisturbed samples collected from the Montandon SB wall, three of the samples in a straight tube and the other seven in the standard tube with a cutting edge reduction. Although the samples extruded from straight tubes appeared visually to be less disturbed on the outer edge, the results indicate that the tube type made no difference in the measured *k* value (see Figure 4-15). The majority of the volume tested was intact and representative of the field condition for each undisturbed specimen.

4.3.1.2 Rigid-Wall Oedometer Tests

Nine rigid-wall oedometer *k* tests were conducted in this study (seven remolded specimens, two undisturbed). The one-dimensional consolidation test (ASTM D 2435) apparatus was modified by researchers at Bucknell University to measure *k* with a falling head-constant tail test (Yeo et al. 2005, Barben 2008). The sample height is monitored at all times during this test with a deformation dial. A burette filled with water is attached to the lower port of the assembly allowing flow up through the lower porous stone, filter paper, SB sample, filter paper, upper porous stone, and finally out the upper port. The effective stress is controlled by adding weights to a lever arm that applies pressure to the sample vertically, the SB sample is constrained laterally within the rigid wall of the apparatus. The apparatus configuration is shown in Figure 4-4. As the water level in the burette lowers during the test the effective stress rises correspondingly (1.0 kPa/9.8 cm). This variation of effective stress during the test is most significant at the initial low confining pressure and becomes negligible after the second load increment. Hydraulic fracture of the sample will occur and create preferential flow paths if the hydraulic head in the burette is greater than the confining pressure at the bottom of the sample. The range of pressures applied to remolded and undisturbed SB samples was 1.2 to 84 kPa, targeting 11, 21, 31, 41, 61, and 82 kPa. The oedometer stress range encompasses the effective stress range applied flexible wall samples (6.9, 13.8, 20.7, 34.5 kPa). The falling head-constant tail test was conducted at each consolidation pressure until primary consolidation was complete and a steady *k* value was obtained (the final *k* value was within 25 % of the average *k* value of the final four measurements).

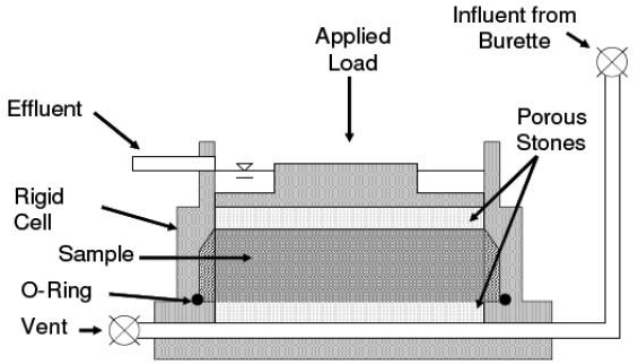


Figure 4-4. Schematic of rigid wall consolidation cell used for falling head constant tail water *k* test (from Barben 2008).

The specimen volume is known at all times during the rigid wall oedometer falling head *k* test, providing a complete record of the stress-strain relationship and the relationship between *k* and void ratio. Consolidation properties obtained from this test are an additional benefit of this method. The specimen volume of the oedometer test is relatively small (90-95 cm^3).

Remolded specimens were prepared from surface grab samples that had been remixed to a condition similar to the backfill as it was placed in the wall (in terms of homogeneity and slump). The backfill was placed directly into the apparatus and rodded to remove air. Initial *k* measurements were obtained with only the cap to confine the sample and the burette filled only slightly above the outflow port.

Undisturbed specimens were prepared from piston tube samples collected as described previously. The specimens were carefully trimmed to fit into the oedometer apparatus, the *k* test was conducted the same as for remolded specimens.

4.3.1.3 Large-Scale Rigid-Wall Tests

A large-scale rigid-wall permeameter was constructed to measure *k* of larger remolded backfill specimens in the laboratory. One reason to test larger samples of backfill in the laboratory is to investigate any influence of sample size on the measured *k*. Another reason is that the backfill of the Montandon SB wall contains particle sizes up to 7 cm in diameter and ASTM D5084 specifies the apparatus diameter must be six times greater than the maximum particle size in the test specimen. Two large scale permeameters were constructed, one from a tall PVC tube and the other from a 10-L bucket. The inner diameter of the tube permeameter was 15.4 cm, and sample volumes ranged from 35,000 to 45,000 cm^3. The bucket permeameter inner diameter was 26.4 cm in the middle (there was a slight taper from top to bottom) with sample volumes ranging from 80,000 to 95,000 cm^3. The large scale test apparatus is simple in design and operation, and is designed to test a much greater sample volume than the oedometer and flexible-wall tests.

Pea gravel was used in place of porous stones above and below the specimen. Filter paper also was placed above and below the specimen on both ends, and the filter paper was supported by wire mesh between the pea gravel and the specimen (see Figure 4-5). A burette placed above the apparatus was connected to the headwater port located in the bottom layer of gravel. The water flowed from the burette into the lower pea gravel and up through the specimen, continuing through the upper pea gravel and out the tail-water port. Measurements were taken daily by recording the height from the end tip of the tail-water port discharge up to the water level in the head-water burette.

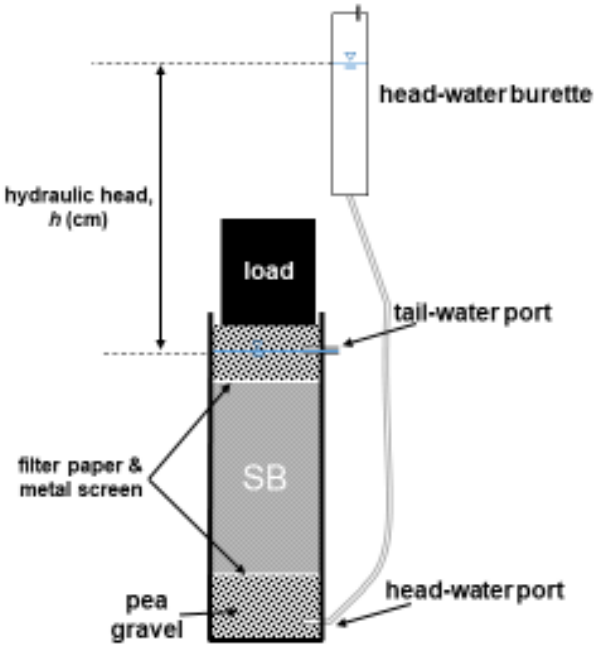


Figure 4-5. Schematic of large-scale rigid-wall permeameter used to measure *k* of remolded backfill specimens in the laboratory.

Samples were prepared by remixing a surface grab sample bucket until the backfill was homogenous and of similar consistency as the backfill at the time the sample was collected (i.e., the same preparation as was used when preparing remolded specimens for the flexible-wall and oedometer tests). The lower layer of gravel was saturated prior to placing backfill in the apparatus. The backfill was placed inside the apparatus with a spoon in three lifts, and each lift was rodded as needed to ensure all air was displaced. Once the large-scale apparatus was filled with backfill to the appropriate level (3-5 cm below the tail-water port) the upper filter paper was placed, followed by metal screen and pea gravel. Water was then added to the upper pea gravel, and the head-water burette was placed on the floor approximately half full of water so that pore pressure equilibrium would be achieved throughout the sample. The initial load was then applied and the burette placed above the sample, once primary consolidation was complete measurements of *k* commenced. The applied hydraulic gradient (*i*) ranged from 3 to 5.

Confining pressure was applied by placing weights directly on a metal plate on the upper gravel layer (see Figure 4-5). The metal plate supporting the vertical load (weights) covered most of the surface of the pea gravel, and the pea gravel height extended 4-6 cm above the tail-water port. The tests were conducted for several weeks at multiple load increments. After each incremental load was applied, several days were allowed for the excess pore pressure to dissipate before resuming readings.

The total stress applied to the top of the specimen was estimated by subtracting the frictional force between the sidewall and the upper gravel layer from the total load. The calculation of the vertical frictional force between the pea gravel and sidewall was performed using the parameters found in Table 4-2, the interfacial friction angle (pea gravel to apparatus sidewall) was determined from a simple laboratory test, the pea gravel internal friction angle was estimated. The friction between

the pea gravel and sidewall transferred 15-26 % of the total load to the sidewalls, depending on the apparatus diameter and height of the upper pea gravel layer.

Table 4-2. Parameters for calculating force of side friction between pea gravel and apparatus sidewall.

Interfacial friction angle between pea gravel and pvc (δ)	16˚
Internal friction angle of pea gravel (θ)	42˚
Inner circumference of apparatus (cm)	48.7-tube, 84.8-bucket
Height of upper gravel layer (cm)	8-12

Effective stress was calculated by subtracting the hydraulic head pressure (burette height) from the estimated total stress applied to the top of the specimen. The estimated effective stress based on the load applied ranged from 4 to 35 kPa, targeting 7, 14, 21, and 35 kPa. However, the actual effective stress was not uniform throughout the sample with depth due to frictional load transfer between the backfill and the sidewalls of the apparatus. Estimation of the load transfer from the backfill to the sidewalls was not attempted. The final void ratios and moisture contents of the large scale specimens provide insight into the effective stress distribution with depth within a specimen. A discussion of the possible effective stress distributions within the large-scale specimens is presented in section 4.4.3.

4.3.2 In-Situ Tests (Field Slug Tests)

Slug tests were performed to obtain post-construction measurements of the in-situ backfill *k*. Twelve slug test wells were installed along the centerline of the wall at four locations (0+33, 0+57, 0+80, 1+22). Clusters of three slug test wells were installed at each location, each at a different depth. The three wells were spaced approximately 0.6 m apart horizontally and 1.5 m apart vertically, targeting depths of 3.0, 4.5, and 6.0 m with exception at the 0+80 cluster (3.0, 4.0, and 5.0 m).

The slug test well screened section was a pre-packed screen consisting of a 61-cm-long section of slotted PVC encased in filter sand, surrounded by a stainless steel mesh screen. The pre-packed screen section was attached to a PVC standpipe (see Figure 4-7). The prepacked well screens (GeoProbe, Salina, KS) were installed by pushing steel casing (outer diameter = 7.6 cm) with an expendable cone tip into the wall to the target depth. The most important benefit of the direct push method is control of the verticality of the casing. The Bucknell University drill rig (Acker Soil Scout) was used to push the casing straight down directly in the center of the wall. Centering the well screen within the wall along the transverse section is very important (Daniel and Choi 2004). If the screen location is skewed with respect to the width of the wall the slug test results are potentially affected as the filter cake or adjacent formation is too close to the screen (i.e., the adjacent formation *k* is tested instead of the backfill). The alignment of the wall was well marked using north and south end monuments and other markers along the centerline. The depth from the surface to the bottom of the prepack screen was carefully measured. The push-in method of

installing the cone tipped casing was minimally intrusive to the SB wall and the location of the bottom was closely controlled vertically and horizontally. Installation time for each well was typically 1.0 to 1.5 hours depending on the depth. The piezometers are permanent and slug tests can be performed repeatedly to measure the performance of the wall over time. These in-wall piezometers were relatively inexpensive and easy to install.

Once the bottom of the casing reached the target depth the prepacked screen and standpipe were inserted into the casing (see Figure 4-6). The expendable cone capping the bottom of the casing was then pushed off the casing with the piezometer assembly. Finally, the casing was removed, allowing the soft SB backfill to seal around the screen and standpipe. A bentonite plug was installed 0.5 to 1.0 m below the surface to prevent surface water from flowing down around the standpipe. The slug test well cluster geometry is shown in Figure 4-7 with an expanded view of the prepacked section with dimensions.

Figure 4-6. Photographs of (left) prepacked screen section attached to PVC standpipe next to casing pushed into the Montandon SB wall centerline, (right) inserting the piezometer assembly into the casing (Photo credit James Gutelius 2017).

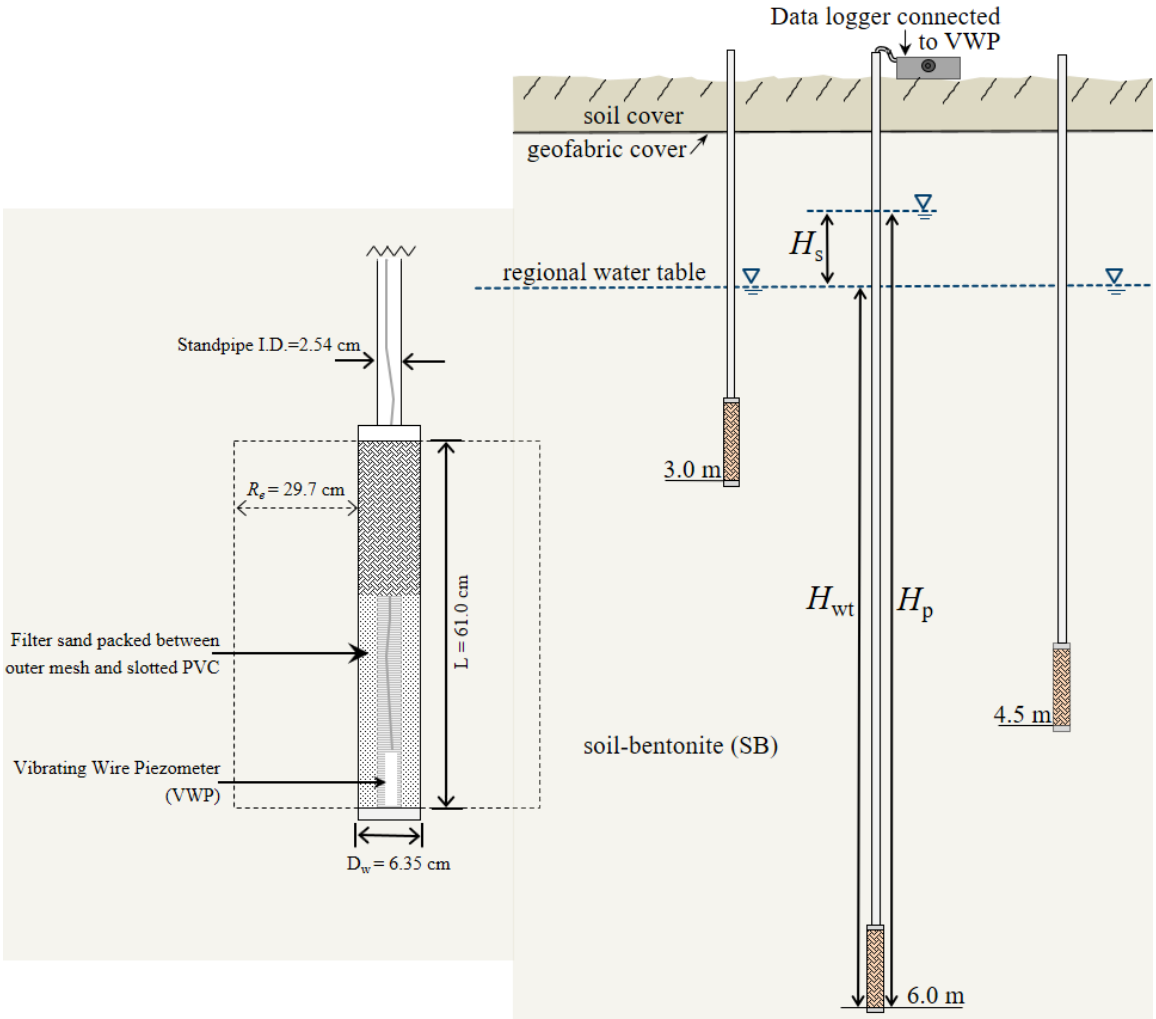


Figure 4-7. Schematic of prepacked slug test well cluster (right) with exploded diagram of prepacked screen assembly (left) with standpipe and screen dimensions (not to scale).

The "effective radius" (R_e) surrounding the screened portion of the well is the distance over which the hydraulic head difference is dissipated (29.7 cm in this study). The wells were installed at a distance from each other much greater than the effective radius to avoid any potential influence on each other. Furthermore, only one slug test was typically conducted within a cluster of wells at a time, or the two furthest wells within the cluster were occasionally tested at the same time.

The slug tests were conducted by placing a vibrating wire piezometer at the bottom of the well and then adding or subtracting a volume (slug) of water to/from the well to raise/lower the water level from the initial level H_{wt} to a new level H_p (see Figure 4-7; this figure illustrates a slug test conducted by adding a slug). The difference between the equilibrium water elevation and the water elevation in the well is designated as the slug height H_s. The test involves tracking the decrease in H_s as the water level returns to the equilibrium level (see Figure 4-8). For this study both rate-of-rise and rate-of-fall slug tests were performed. Small slugs of water were added (initial slug height H_{so} = 20-60 cm) to avoid hydraulic fracturing of the backfill given the low in-situ effective stresses (see Chapter 3). Rate-of-rise tests conducted in this study generally used a higher initial slug height

(H_{so} = 40-130 cm). While rate-of-rise tests do not incur the risk of hydraulic fracturing the surrounding backfill, a transient increase in effective stress in the backfill surrounding the screen occurs due to the pore pressure reduction associated with removal of the slug. This transient stress increase can cause consolidation of the backfill and potentially a reduction in the measured *k*. To minimize this effect, repeated drawdown tests in the same well were avoided (i.e., rate-of-rise tests were alternated with rate-of-fall tests) and the time between tests in any given well was typically at least one week or longer.

The elevation of the water within the slug test well was recorded with a pressure transducer (RST Instruments, Maple Ridge, BC, Canada) attached to single channel vibrating wire data logger. The data logger recorded the hydraulic pressure at the bottom of the well at specified intervals of time that increased during the test (e.g., 5 minutes, 30 minutes, 1 hour, and 2 hours). Because SB backfill has a low *k*, several days are required for the well to return to equilibrium. Slug tests in this study were observed for at least 3 days and typically 5 days or longer.

The amount of time required for the slug tests performed in SB introduces factors not experienced in slug tests conducted in aquifers with higher *k*. For example, fluctuations in barometric pressure must be considered when interpreting the pressure data from the vibrating wire piezometer, especially when small slugs are used. Barometric pressure fluctuations of 1-4 kPa were observed in this study over the durations of the slug tests. The weather station at the Montandon research site records the barometric pressure hourly. By compensating for changes in the barometric pressure from the start of the slug test (t=0) the actual elevation of the water within the well can be accurately determined for each reading. Also, the water table on each side of the SB wall may fluctuate, with the most significant changes occurring after a precipitation event. If the adjacent water table drops quickly during a drawdown test (where the water in the well is rising to meet equilibrium) the difference in hydraulic head (H_s) is actually much lower than would be assumed from the initial H_{so}. Vice versa, if the adjacent water table rises during a drawdown test, H_s is actually much higher than would be assumed from H_{so}. Either of the scenarios described will distort the slug dissipation curve, indicating a higher/lower *k* value. The Montandon research site is instrumented with five pairs of monitoring wells adjacent to the SB wall. To interpret data from the slug tests conducted within SB walls, fluctuation of the adjacent water table was considered by adjusting the H_s to represent the actual difference in hydraulic head at each time in test. For sites that do not have the benefit of multiple adjacent monitoring wells, it is best to conduct the slug test when fluctuation of the water table is minimal (i.e., several days or weeks after precipitation or runoff events). This study interpreted slug test results two ways; by considering the fluctuation in the adjacent water table elevation and adjusting hourly, and also by considering the adjacent water elevation to be static throughout the test using the initial H_{wt} for the entire curve.

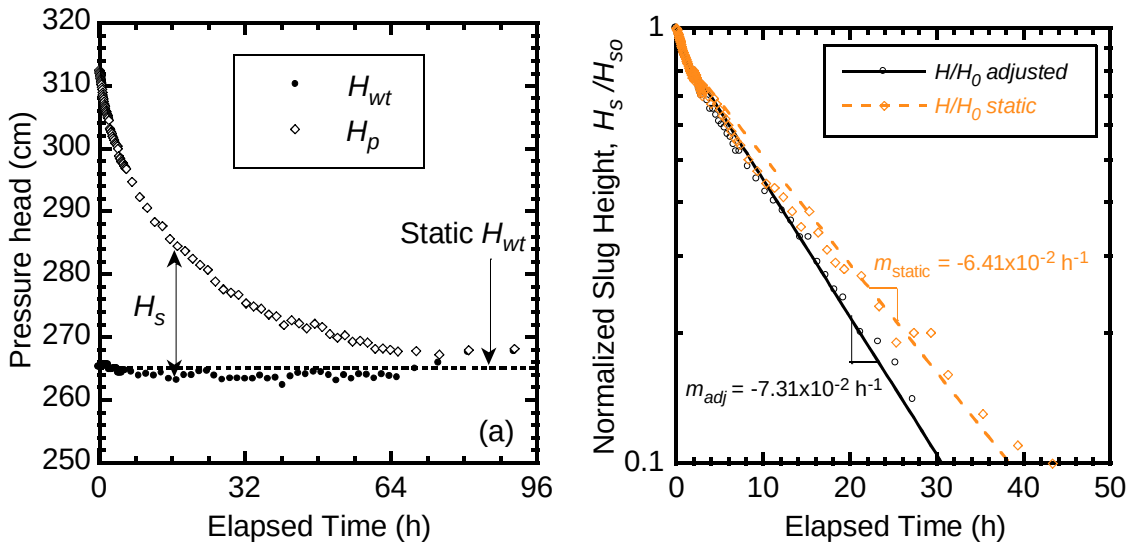


Figure 4-8. Example slug test data for test well at Station 0+56.2 (depth = 4.5 m): (a) measured pressure heads versus time; (b) semi-log plot of normalized slug height (H_s/H_{so}) versus time.

The difference in hydraulic head can be normalized by dividing each H_s by the initial H_{so} (t=0). Normalized head dissipation curves (i.e., H_s/H_{so}) were plotted on a semi-log scale versus time, and k was computed using the following expression:

$$k = -Sm = \frac{-S}{\Delta t}\ln\left(\frac{H_S}{H_{so}}\right) \tag{4.1}$$

where S is a shape factor that represents the geometry of flow from the well into the adjacent soil (in this case the SB wall), and m = [ln(H_s/H_{so})/Δt] is the slope of the normalized head dissipation curve (e.g., see Figure 4-8). The units of S are cm and the units of m are inverse seconds (s^{-1}).

The shape factor S accounts for geometric parameters including the dimensions of the well and the effective radius, R_e, which is the radius of the "cylinder" of soil over which the head is dissipated (i.e., the representative volume of the slug test). Based on Eq. 2.3, S is defined by the following equation:

$$S = \frac{r_c^2 ln(R_e/r_w)}{2L} \tag{4.2}$$

where r_c is the radius of the inner standpipe, r_w is the radius of the outer screen of the well (the developed section), and L is the length of the screen. All of these parameters are known except the effective radius, R_e. Several methods for determining R_e have been proposed in previous studies (Hvorslev 1951, Bouwer and Rice 1986, Britton et al. 2005, Zlotnick et al. 2010, Lim et al. 2014). Britton et al. (2005) provides a chart to determine the correct shape factor (see Figure 4-9) which includes R_e. Figure 4-9 defines D as the diameter of the outer diameter of the well screen, B as the width of the wall, and L as the length of the screen. A triangle has been placed over the chart to show the specific geometry present in the Montandon slug test wells (F/D = 27).

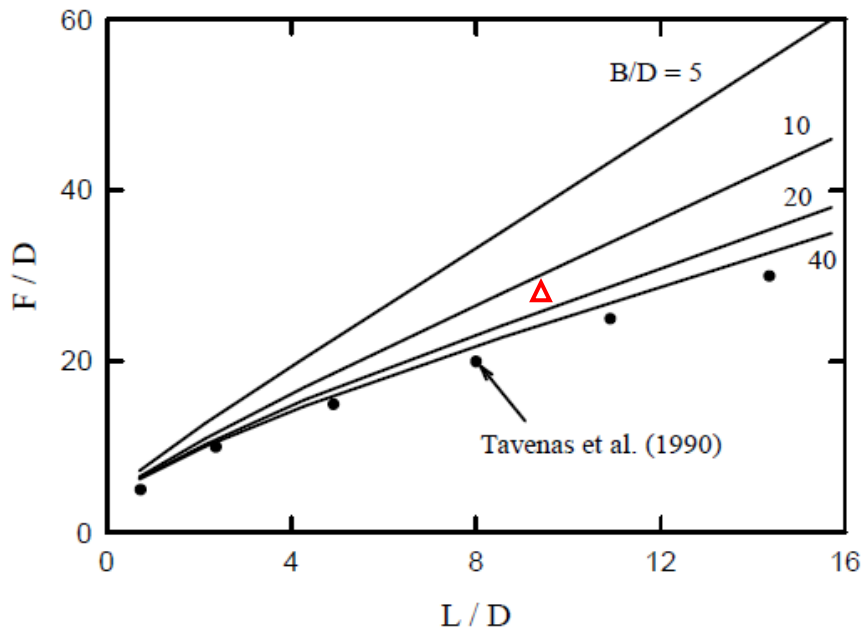


Figure 4-9. Chart solution to determine well shape factor, *F*, according to Britton et al. (2005). The triangle represents the geometry present in the Montandon SB wall slug test wells (from Britton et al. 2005).

Chapter 2 provides more information regarding how *S* is calculated. All of the shape factors from the different methods are constant for except the Bouwer and Rice (1986) method and Britton et al. (2005) method assuming an intact filter cake. For Bouwer and Rice (1986) the R_e (and therefore *S*) varies based on the the depth of the screened portion of the well below the water table. Britton et al. (2005) provide a revised shape factor which assumes the filter cake is intact (S_{BF}) and affecting the slug test results (see

Table **4-3**). The Britton et al. (2005) shape factor that accounts for the presence of a filter cake (S_{BF}) starts by calculating the equivalent *k* (k_{eq}). Calculating k_{eq} requires first normalizing the *k* of the SB assuming no filter cake (k_{sb}) by dividing by the width of the wall, then normalizing the filter cake by dividing the *k* of the filter cake (k_{fc}) by the assumed width of the filter cake. The ratio of the normalized values (k^*_{sb}/k^*_{fc}) is plotted on a solution chart provided in Britton et al. (2005). The chart value provides the k_{eq} which is used to calculate the *k* of the SB assuming an intact filter cake by the expression $k = \mathrm{B}k_{eq}k^*_{fc}/(Bk^*_{fc} - k_{eq})$. Where B is the width of the wall, and k^*_{fc} is the normalized *k* of the filter cake (please refer to Britton et al. 2005 for solution chart and further details). As *k* assuming no filter cake varies, so does the k_{eq}, and thus the *k* assuming an intact filter cake.

The shape factor S_B proposed by Britton et al. (2005), which neglects the potential impact of the filter cake, was used as the default shape factor in this study to calculate *k*. The Britton et al. (2005) method was developed specifically for SB cutoff walls and considers the conditions present in a cutoff wall. The effective radius, R_e, as determined from the Britton et al. (2005) method is 29.7 cm. The width of the wall is at least 85 cm in all locations (see Chapter 3), thus it is correct to not include the presence of a filter cake because R_e does not reach the trench sidewalls.

Other methods (Hvorslev (1951), Bouwer and Rice (1986), Zlotnick et al. (2010), Lim et al. (2014) of obtaining the shape factor were also considered and presented in the results to illustrate the influence of the different methods on *k*.

Table **4-3** includes the shape factor as calculated for each method (specific to the Montandon slug test wells) along with the rationale for the method and R_e. Figure 4-10 is a plot to easily compare the difference of *S* as determined from each method. Because *S* is constant (or nearly constant) with each method, the ratio of any method to another is constant, hence the ratio of *k* as calculated from the different methods is also constant.

All shape factors (*S*) are within a similar range with exception of the Lim et al. (2014) method which assumes that the filter cake acts as an impermeable, or no-flux boundary. Because no recharge from the adjacent aquifer is allowed by this scenario, the effective radius becomes much larger. This not a realistic scenario because the filter cake is permeable and very thin.

Table 4-3. Summary of shape factors, *S*, used to compute *k* from slug test data.

Study	Shape Factor *S* (cm)	Study method	Filter Cake	R_e (cm)
Hvorslev (1951) S_H	-3.91×10^{-2}	Analytical	No	53.4
Bouwer and Rice (1986) S_{BR}	-2.41×10^{-2} to -3.35×10^{-2}	Semi-empirical analog model	No	18.1-35.7
Britton et al. (2005) S_B	**-2.96×10^{-2}**	**Finite difference model**	**No**	**29.7**
Britton et al. (2005) S_{BF}	-3.23×10^{-2} to -3.83×10^{-2}	Finite difference model	d = 0.5 cm, $k = 1.0 \times 10^{-9}$ cm/s	32.7-50.5
Zlotnick et al. (2010) S_Z	-3.48×10^{-2}	Analytical	No	39.2
Lim et al. (2014) S_L	-2.70×10^{-2}	Analytical	No, constant head assumed	22.3
Lim et al. (2014) S_{LF}	-6.30×10^{-2}	Analytical	Yes, as no-flux boundary	300.3

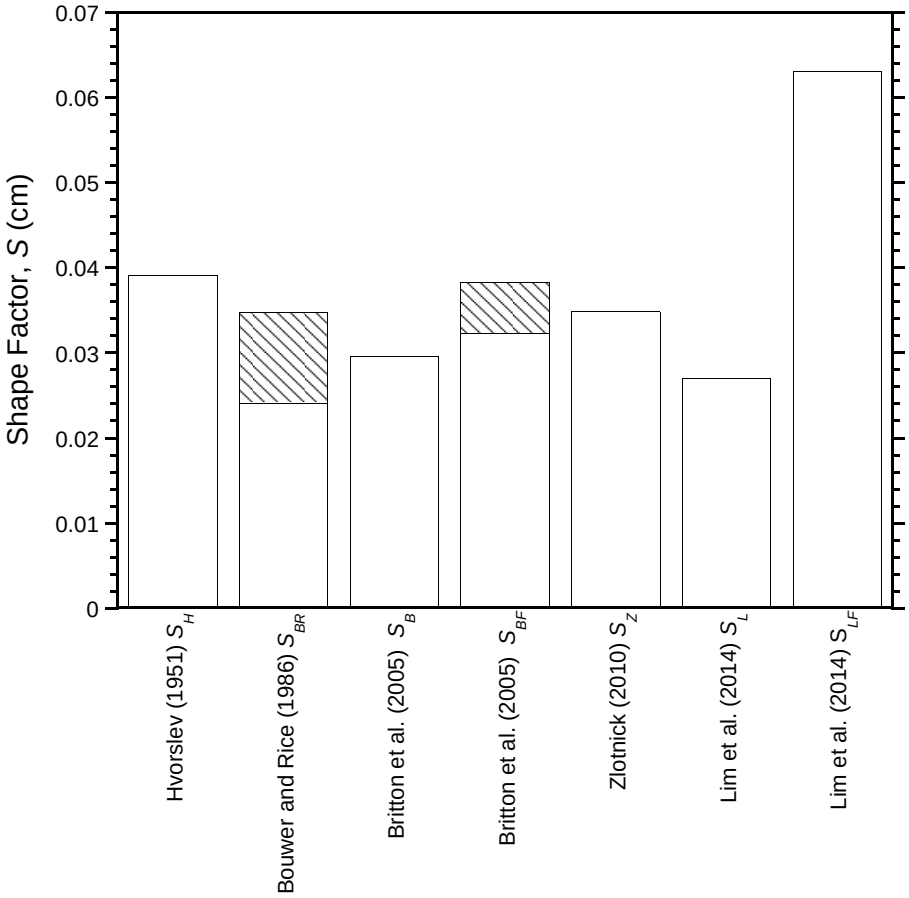


Figure 4-10. Shape factor *S* as calculated from different methods.

4.4 Results and Discussion

4.4.1 Flexible-Wall Tests

4.4.1.1 Remolded Samples

The final *k* values measured in the flexible-wall tests for the 26 remolded backfill specimens are plotted as a function of sample location and applied effective stress in Figure 4-11. Specimens containing only the base soil (no bentonite) are plotted left of station 0+00. These specimens were prepared by mixing the base soil with water instead of slurry to achieve a similar consistency and slump as typical backfill.

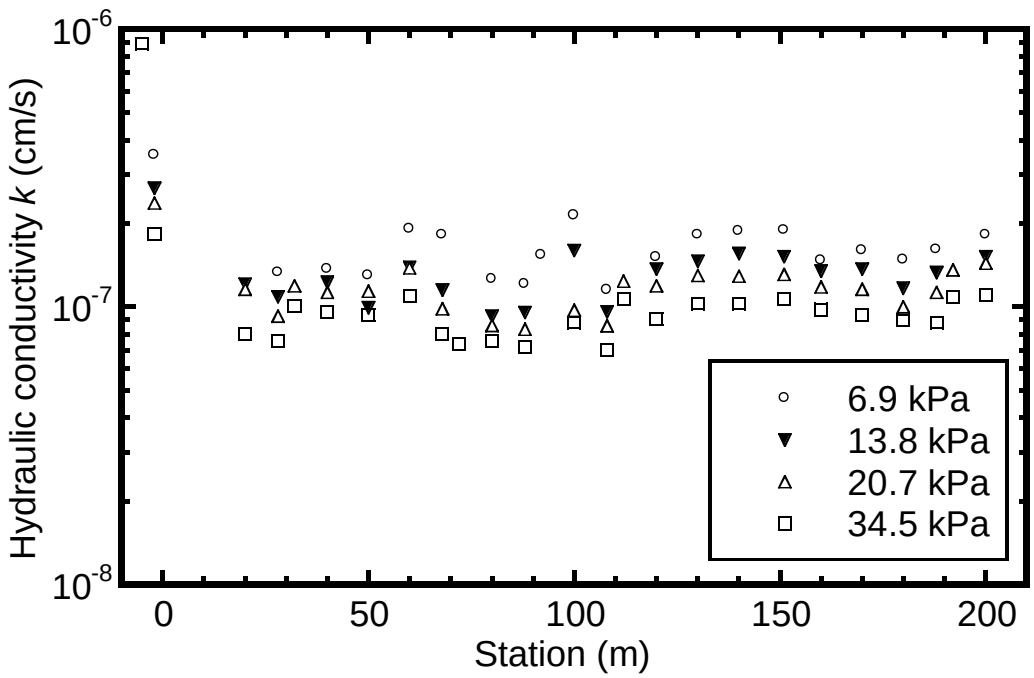


Figure 4-11. Plot of remolded flexible-wall *k* values including duplicate tests from selected locations. Base soil specimens with no bentonite are plotted left of station 0+00.

The results indicate very little variability of *k* of the backfill based on the surface grab samples, underscoring the uniformity of the base soil and the high level of homogeneity achieved during the field mixing process. For example, final *k* values for individual remolded backfill specimens (i.e., excluding the specimens containing base soil only) at a given effective stress deviated from the average *k* at that stress by less than a factor of 1.4 in all cases, despite some variation in slump among the grab samples (see Table 3-2). During construction, the SB backfill was prepared in large batches. The bulldozer would mix the base soil with the bentonite slurry for several hours to create homogenous backfill and then push the backfill into the trench until the mixing pad was clear before starting to mix the next batch. The mixing method is evident in Figure 4-11 as segments of wall that were mixed homogenously result in nearly identical measurements of *k* (e.g., station 1+20 to 1+50). The *k* results of backfill from the section of wall between stations 0+60 and 1+00 show more variability, potentially as a result of the higher slump and smaller mix batches.

The measured *k* of each remolded specimen is plotted versus the measured slump in Figure 4-12. The results indicate only a very slight trend of increasing *k* with increasing slump over the range of slump measured in this study (80-160 mm).

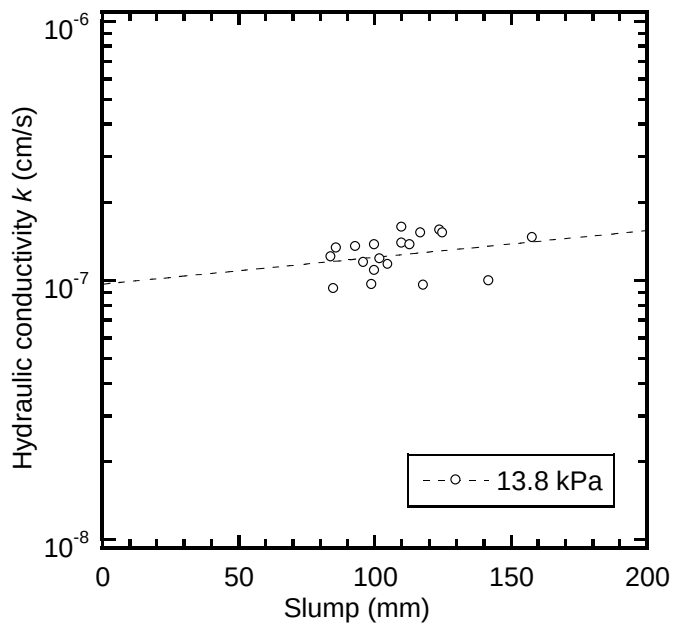


Figure 4-12. Plot of *k* versus the slump of the remolded sample as measured in the laboratory.

The initial/final void ratio was measured for the flexible wall *k* test specimens (remolded and undisturbed). The measured *k* value is plotted versus the void ratio in Figure 4-13. The final void ratio, *e*, is plotted versus the final effective stress load (34.5 kPa), the initial void ratio (prior to consolidation) is plotted versus the *k* value measured during the first stage of consolidation (6.9 kPa). Clearly the *e* during the *k* test consolidated at 6.9 kPa was lower than the initial *e* that is reported, but is likely close. The trend lines of each series have nearly identical slope showing the increase of *k* as *e* increases.

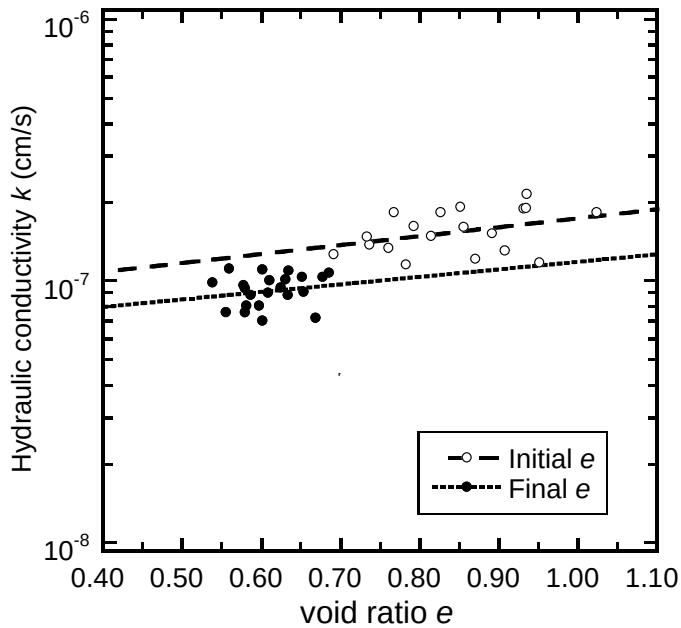


Figure 4-13. Plot of *k* versus void ratio (*e*) of the specimen.

The fines and clay content was measured for a representative number of samples (see Chapter 3). The measured *k* value at 13.8 kPa effective stress is plotted versus the fines and clay content in Figure 4-14 below. There is no trend of increase or decrease in *k* over the limited range of fines or clay content present in this backfill.

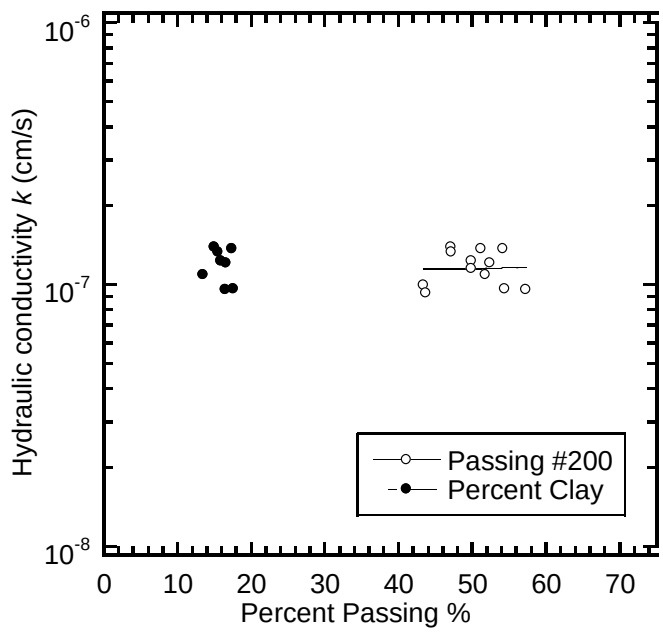


Figure 4-14. Plot of *k* versus fines content and clay content (effective stress= 13.8 kPa).

The results of all remolded flexible wall *k* tests are tabulated along with the initial and final moisture contents and void ratios in Table 4-4. The geometric mean of all *k* values from remolded samples for each stage of effective stress is shown. Duplicate samples (D) are included.

Table 4-4. Results of flexible-wall tests on remolded backfill specimens (duplicate specimens are denoted with D).

Sample Location	Slump (mm)	w_o (%)	w_f (%)	e_o	e_f	Final hydraulic conductivity, k_f (cm/s) Average Effective Stress σ' = 6.9 kPa	13.8 kPa	20.7 kPa	34.5 kPa
BASE SOIL A	--	27.6	21.1	0.777	0.572	1.23×10^{-6}	--	--	8.90×10^{-7}
BASE SOIL B	--	41.0	29.4	1.159	0.808	3.53×10^{-7}	2.68×10^{-7}	2.37×10^{-7}	1.83×10^{-7}
0+20	102	28.6	21.9	0.765	0.598	--	1.21×10^{-7}	1.16×10^{-7}	8.01×10^{-8}
0+30	100	27.1	21.0	0.761	0.580	1.33×10^{-7}	1.09×10^{-7}	9.27×10^{-8}	7.54×10^{-8}
0+30 (D)		27.0	23.1	0.763	0.631	--	--	1.19×10^{-7}	1.01×10^{-7}
0+40	84	25.8	21.3	0.737	0.578	1.37×10^{-7}	1.23×10^{-7}	1.13×10^{-7}	9.58×10^{-8}
0+50	142	33.3	21.8	0.908	0.580	1.30×10^{-7}	9.94×10^{-8}	1.14×10^{-7}	9.32×10^{-8}
0+60	110	30.9	22.1	0.852	0.602	1.91×10^{-7}	1.39×10^{-7}	1.38×10^{-7}	1.10×10^{-7}
0+70	105	30.1	21.3	0.827	0.582	1.82×10^{-7}	1.15×10^{-7}	9.85×10^{-8}	7.99×10^{-8}
0+70 (D)		--	--	--	--	--	--	--	7.35×10^{-8}
0+80	85	24.9	20.3	0.692	0.556	1.26×10^{-7}	9.27×10^{-8}	8.57×10^{-8}	7.55×10^{-8}
0+90	118	31.6	23.2	0.871	0.669	1.21×10^{-7}	9.56×10^{-8}	8.32×10^{-8}	7.18×10^{-8}
0+90 (D)		34.6	27.1	0.952	0.745	1.17×10^{-7}	--	--	--
1+00	110	32.8	23.2	0.936	0.634	2.14×10^{-7}	1.60×10^{-7}	9.75×10^{-8}	8.80×10^{-8}
1+10	99	28.0	21.3	0.783	0.602	1.15×10^{-7}	9.63×10^{-8}	8.54×10^{-8}	7.02×10^{-8}
1+10 (D)		24.3	22.2	0.768	0.611	--	--	1.16×10^{-7}	1.00×10^{-7}
1+20	113	32.8	23.5	0.892	0.654	1.51×10^{-7}	1.37×10^{-7}	1.19×10^{-7}	9.04×10^{-8}
1+30	158	37.5	24.2	1.024	0.652	1.82×10^{-7}	1.46×10^{-7}	1.30×10^{-7}	1.03×10^{-7}
1+40	124	34.4	24.4	0.932	0.678	1.88×10^{-7}	1.56×10^{-7}	1.29×10^{-7}	1.03×10^{-7}
1+50	117	34.1	24.5	0.935	0.686	1.89×10^{-7}	1.52×10^{-7}	1.31×10^{-7}	1.07×10^{-7}
1+60	93	27.1	19.6	0.734	0.539	1.47×10^{-7}	1.35×10^{-7}	1.18×10^{-7}	9.80×10^{-8}
1+70	100	31.2	22.7	0.856	0.625	1.60×10^{-7}	1.37×10^{-7}	1.16×10^{-7}	9.39×10^{-8}
1+80	96	30.0	21.7	0.815	0.609	1.48×10^{-7}	1.17×10^{-7}	1.00×10^{-7}	8.97×10^{-8}
1+90	86	28.2	21.2	0.793	0.587	1.61×10^{-7}	1.33×10^{-7}	1.13×10^{-7}	8.79×10^{-8}
1+90 (D)		30.6	23.1	0.842	0.635	--	--	1.36×10^{-7}	1.09×10^{-7}
2+00	125	27.7	20.1	0.768	0.560	1.82×10^{-7}	1.52×10^{-7}	1.44×10^{-7}	1.11×10^{-7}
Geo. Mean	**108.8**	**30.1**	**22.4**	**0.835**	**0.617**	$\mathbf{1.54\times10^{-7}}$	$\mathbf{1.25\times10^{-7}}$	$\mathbf{1.12\times10^{-7}}$	$\mathbf{9.07\times10^{-8}}$
Std. Dev.	18.7	3.4	1.7	0.083	0.047	2.87×10^{-8}	2.11×10^{-8}	1.72×10^{-8}	1.28×10^{-8}

w_o = initial water content; w_f = final water content; e_o = initial void ratio, e_f = final void ratio.

4.4.1.2 Undisturbed Samples

Results of the ten flexible-wall tests on the undisturbed backfill specimens are provided in Table 4-5 along with the initial/final moisture contents and void ratios. Figure 4-15 is a plot of the data shown in Table 4-5. The flexible wall results of all undisturbed samples are all very similar with the exception of the specimen prepared from the sample collected at a depth of 2.1 m at station 0+67. The sample from 0+67, 2.1 m depth was the first undisturbed sample collected in this study. Neglecting this specimen, the undisturbed specimens exhibited similar variability and ranges of *k* as the remolded specimens in Figure 4-10, but the mean *k* for the undisturbed specimens at a given effective stress is lower than that for the remolded specimens at the same stress, suggesting that testing of remolded specimens prepared from grab samples is a more conservative approach relative to testing undisturbed specimens (perhaps because sample disturbance of soft backfill cannot be fully avoided). The results of unpaired t tests, summarized in Table 4-6, indicate that the differences in the remolded and undisturbed mean *k* are statistically significant ($p < 0.05$) at all stresses except the highest stress (34.5 kPa).

Table 4-5. Results of undisturbed flexible wall laboratory tests.

Sample Location	Depth (m)	w_o (%)	w_f (%)	e_o	e_f	Final hydraulic conductivity, k_f (cm/s)			
						Average Effective Stress σ'			
						6.9 kPa	13.8 kPa	20.7 kPa	34.5 kPa
0+67	2.1	25.4	21.1	0.699	0.582	--	$2.46\text{x}10^{-7}$	$2.27\text{x}10^{-7}$	$2.01\text{x}10^{-7}$
0+90	0.75	14.9	22.4	--	0.616	--	$1.43\text{x}10^{-7}$	$1.42\text{x}10^{-7}$	$1.01\text{x}10^{-7}$
1+10	3.5	25.8	21.9	0.745	0.605	$1.20\text{x}10^{-7}$	$9.54\text{x}10^{-8}$	$7.97\text{x}10^{-8}$	$7.68\text{x}10^{-8}$
1+10	3.3	25.7	19.7	0.715	0.542	$1.09\text{x}10^{-7}$	$9.41\text{x}10^{-8}$	$9.28\text{x}10^{-8}$	--
1+10	2.2	23.5	19.5	0.658	0.546	$1.14\text{x}10^{-7}$	$9.23\text{x}10^{-8}$	$8.57\text{x}10^{-8}$	$7.17\text{x}10^{-8}$
1+10	2.0	23.5	--	0.654	--	$1.28\text{x}10^{-7}$	$1.06\text{x}10^{-7}$	$8.91\text{x}10^{-8}$	--
1+17	3.5	26.2	19.1	0.707	0.516	$1.23\text{x}10^{-7}$	$1.10\text{x}10^{-7}$	$9.25\text{x}10^{-8}$	$7.95\text{x}10^{-8}$
1+17	6.5	24.6	17.8	0.664	0.481	$1.00\text{x}10^{-7}$	$9.43\text{x}10^{-8}$	$8.29\text{x}10^{-8}$	$7.27\text{x}10^{-8}$
0+31	2.4	25.9	--	0.699	--	$1.30\text{x}10^{-7}$	$1.11\text{x}10^{-7}$	--	--
0+31	2.8	25.5	--	0.689	--	$1.41\text{x}10^{-7}$	$1.12\text{x}10^{-7}$	--	--
Geometric Mean		**23.8**	**20.1**	**0.692**	**0.554**	**$1.21\text{x}10^{-7}$**	**$1.04\text{x}10^{-7}$**	**$9.33\text{x}10^{-8}$**	**$7.96\text{x}10^{-8}$**

w_o = initial water content; w_f = final water content; e_o = initial void ratio, e_f = final void ratio.
*0+67 specimen is not included in average calculations (outlier)

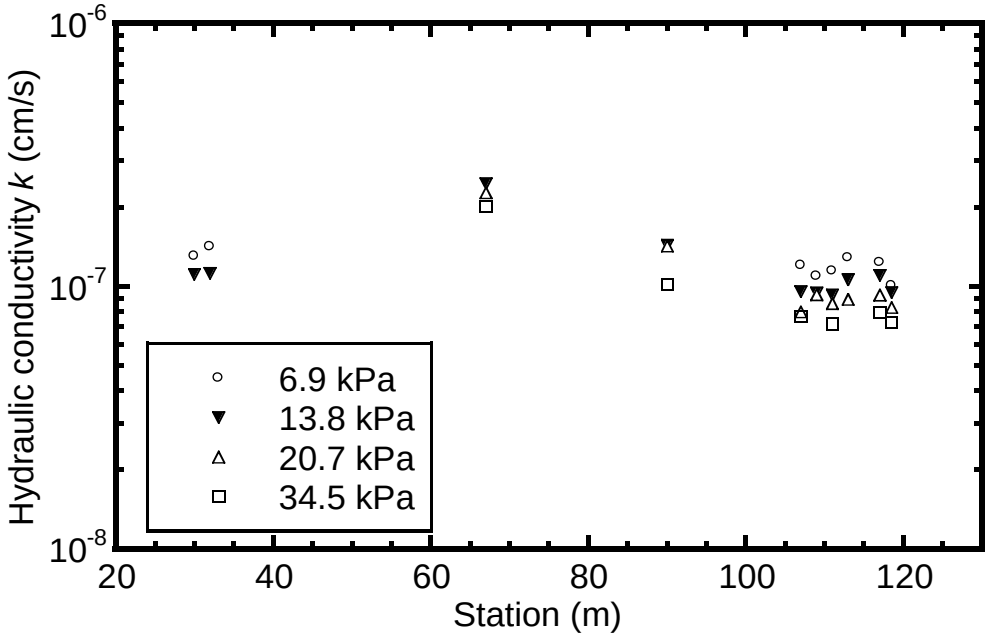


Figure 4-15. Plot of undisturbed flexible wall test *k* values. At Station 1+10 and 1+17 samples were collected from multiple depths. The data at these locations is plotted left (shallow) to right (deep) as if they were next to each other along the wall alignment so the data points are visible.

The influence of effective stress on the *k* of the undisturbed and remolded flexible-wall specimens is illustrated in Figure 4-16. At each effective stress, the range of *k* for the remolded samples is represented by lines bounded by bars depicting the maximum and minimum *k*. Undisturbed specimen results are plotted individually. Regardless of the specimen type, there is a clear trend of decreasing *k* with increasing effective stress, as expected.

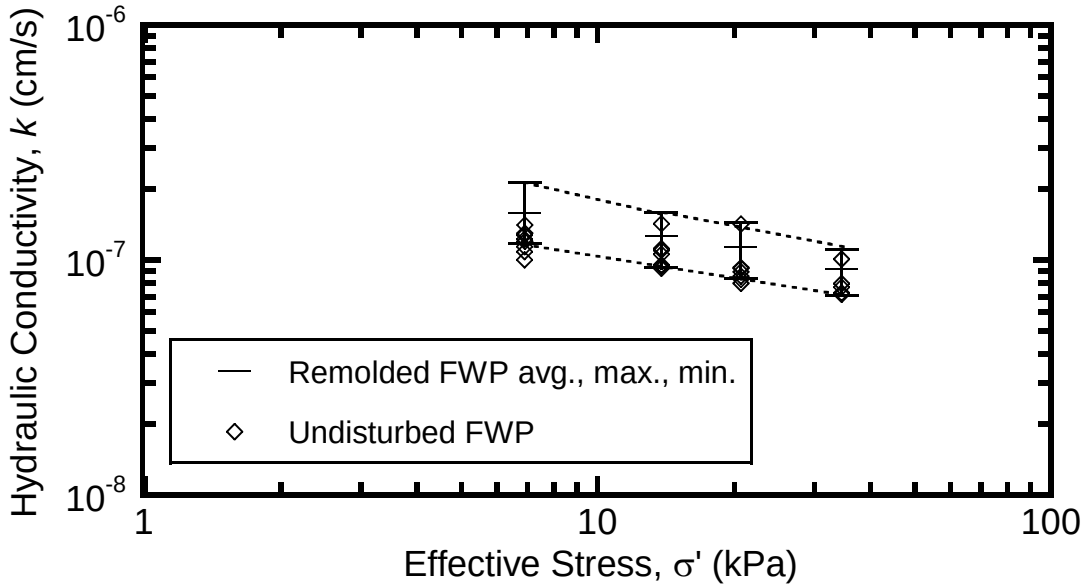


Figure 4-16. Laboratory results of *k* for remolded and undisturbed flexible-wall test specimens.

For the remolded specimens, unpaired t tests (unpaired because *k* was not measured for all specimens at all four stresses) were performed to determine if the difference between the mean values of remolded *k* for each effective stress (6.9, 13.8, 20.7, 34.5 kPa) are statistically significant. The results, shown in Table 4-7, indicate that each stepwise increase in stress caused a statistically significant ($p < 0.05$) decrease in mean *k*. These results underscore the importance of testing SB backfill specimens at stresses representative of those in the field. In this study, the lower stresses (7-14 kPa) are the most representative of the stresses measured in the field (see Chapter 3).

Table 4-6. Results of unpaired t test comparing the mean *k* value of remolded and undisturbed flexible wall tests at each effective stress (outlier of station 0+67 omitted).

	6.9 kPa		**13.8 kPa**		**20.7 kPa**		**34.5 kPa**	
	Remolded	Undisturbed	Remolded	Undisturbed	Remolded	Undisturbed	Remolded	Undisturbed
Avg. k	1.54×10^{-7}	1.21×10^{-7}	1.25×10^{-7}	1.04×10^{-7}	1.12×10^{-7}	9.33×10^{-8}	9.07×10^{-8}	7.96×10^{-8}
Std. Deviation	2.87×10^{-8}	9.04×10^{-9}	2.10×10^{-8}	1.67×10^{-8}	1.71×10^{-8}	4.73×10^{-8}	1.27×10^{-8}	1.05×10^{-8}
t-test two-tailed P value	0.0033		0.0244		0.0296		0.0876	
Difference Statistically Significant	Yes		Yes		Yes		No	

Table 4-7. Results of unpaired *t* test comparing the mean *k* value of remolded flexible wall tests at each effective stress.

	6.9 kPa <> 13.8 kPa		**13.8 kPa <> 20.7 kPa**		**20.7 kPa <> 34.5 kPa**	
Avg. k	1.54×10^{-7}	1.25×10^{-7}	1.25×10^{-7}	1.12×10^{-7}	1.12×10^{-7}	9.07×10^{-8}
Std. Deviation	2.87×10^{-8}	2.10×10^{-8}	2.10×10^{-8}	1.71×10^{-8}	1.71×10^{-8}	1.27×10^{-8}
t-test two-tailed P value	0.0013		0.0310		<.0001	
Difference Statistically Significant	Yes		Yes		Yes	

The difference of average *k* at each incremental effective stress (remolded samples) is shown to be statistically significant in Table 4-7. The average *k* for the first three consolidation stages (6.9, 13.8, 20.7 kPa) is higher than 10^{-7} cm/s while the average *k* at 34.5 kPa is less than 10^{-7} cm/s. The importance of testing specimens at effective stresses that are representative of the actual field condition is evident here. Although the Montandon backfill was not designed specifically to meet a design requirement of $k \leq 10^{-7}$ cm/s, the results illustrate a plausible design scenario in which the use of a higher effective stress in laboratory tests relative to the effective stresses realized in the

field could result in an un-conservative determination that a backfill design is acceptable for meeting a design requirement of $k \leq 10^{-7}$ cm/s.

4.4.2 Rigid Wall Oedometer *k* tests

A total of nine (9) remolded and two (2) undisturbed samples were tested in the laboratory with the rigid wall oedometer. The results of the rigid wall oedometer remolded samples are provided in Table 4-8 and the undisturbed samples in Table 4-9. The geometric mean of each stage of effective stress is shown in the tables. Rigid wall oedometer *k* values are plotted in Figure 4-17 including all remolded and two undisturbed samples collected at 0+90, 0.75 m depth.

Table 4-8. Results of rigid wall oedometer *k* tests on remolded samples.

Sample Location	w_i (%)	w_f (%)	*k* (cm/s)					
			1.2 kPa	11 kPa	21 kPa	31 kPa	41 kPa	61 kPa
Base soil (a)	26.8	20.9	--	4.48×10^{-7}	3.17×10^{-7}	2.60×10^{-7}	2.26×10^{-7}	1.90×10^{-7}
Base soil (b)	29.7	21.7	--	--	3.86×10^{-7}	3.53×10^{-7}	3.74×10^{-7}	2.42×10^{-7}
0+20	29.3	21.3	--	1.75×10^{-7}	1.31×10^{-7}	1.12×10^{-7}	1.01×10^{-7}	8.42×10^{-8}
0+60 (a)	30.9	20.9	3.48×10^{-7}	1.91×10^{-7}	1.45×10^{-7}	1.34×10^{-7}	1.27×10^{-7}	--
0+60 (b)	30.9	20.7	3.96×10^{-7}	1.80×10^{-7}	1.10×10^{-7}	9.89×10^{-8}	9.76×10^{-8}	--
0+70 (a)	31.6	23.4	--	2.04×10^{-7}	1.28×10^{-7}	--	--	--
0+70 (b)	31.6	23.7	--	1.80×10^{-7}	1.56×10^{-7}	1.30×10^{-7}	--	--
0+90	27.0	22.5	--	1.51×10^{-7}	1.35×10^{-7}	1.01×10^{-7}	8.49×10^{-8}	8.16×10^{-8}
1+10	--	--	--	2.08×10^{-7}	1.37×10^{-7}	1.14×10^{-7}	--	--
Geometric Mean (remolded SB)			**3.71×10^{-7}**	**1.83×10^{-7}**	**1.32×10^{-7}**	**1.14×10^{-7}**	**1.02×10^{-7}**	**8.29×10^{-8}**

Table 4-9. Results of rigid wall oedomter *k* tests on undisturbed samples.

Sample Location	w_i (%)	w_f (%)	*k* (cm/s)					
			11 kPa	21 kPa	31 kPa	41 kPa	61 kPa	84 kPa
0+90 (a)	14.7	21.5	2.75×10^{-7}	2.49×10^{-7}	2.48×10^{-7}	1.70×10^{-7}	--	1.10×10^{-7}
0+90 (b)	14.9	22.0	1.3×10^{-7}	1.09×10^{-7}	1.07×10^{-7}	7.27×10^{-8}	6.19×10^{-8}	5.59×10^{-8}
Geometric Mean (undisturbed SB)			**2.02×10^{-7}**	**1.79×10^{-7}**	**1.78×10^{-7}**	**1.22×10^{-7}**	**6.19×10^{-8}**	**8.32×10^{-8}**

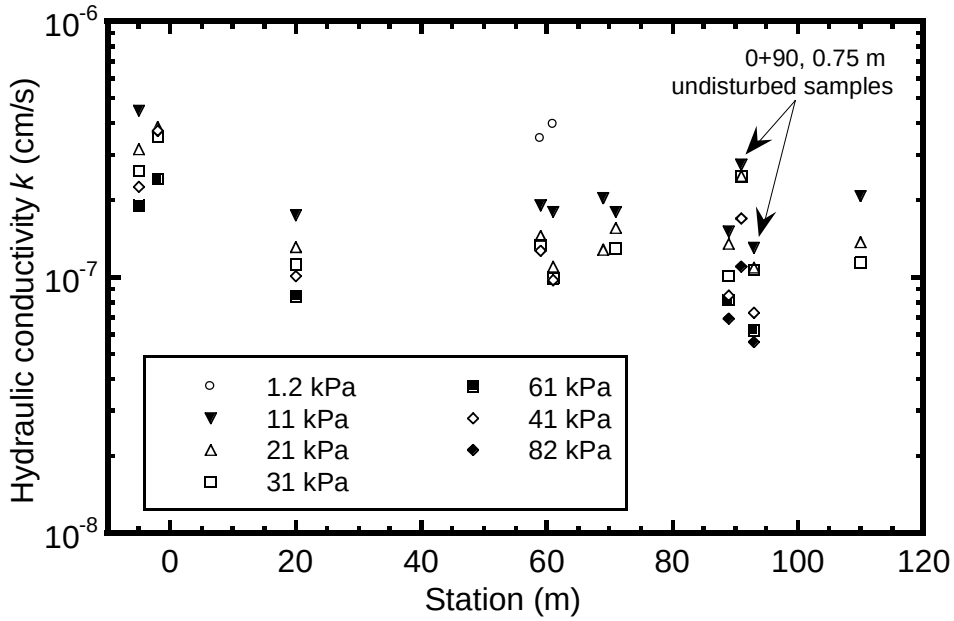


Figure 4-17. Plot of rigid wall oedometer *k* tests of remolded samples, base soil samples are plotted left of station 0+00. Station 0+90 undisturbed samples are also plotted next to 0+90 remolded results.

The results of the oedometer tests show a decrease in *k* as effective stress increases (see Figure 4-18), but little variation in *k* among specimens at the same effective stress. The *k* values from the two undisturbed samples collected near the surface are upper and lower bounds to the *k* values for remolded samples.

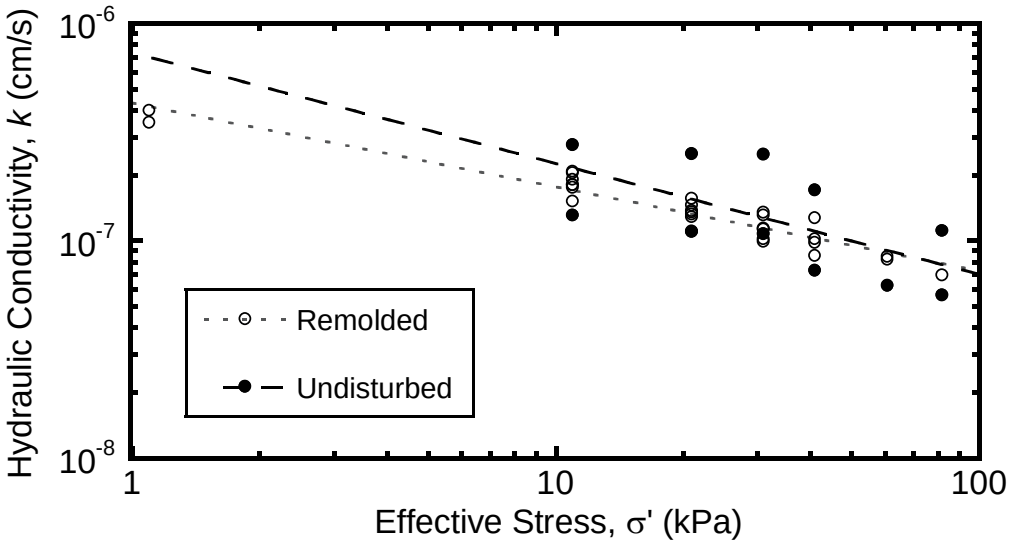


Figure 4-18. Plot of oedometer *k* values from remolded and undisturbed samples versus effective stress.

4.4.3 Large-scale Rigid Wall *k* tests

A total of five (5) large-scale rigid wall *k* tests were conducted on remolded samples. The results are listed in Table 4-10. The results listed in Table 4-10 are plotted in Figure 4-19 showing *k* at each location tested at each stage of effective stress. Large-scale tests were conducted for several weeks at each load increment so that primary consolidation would be complete and to establish flow equilibrium and constant *k*. Consistent with the previously presented laboratory methods of measuring *k*, large-scale test results indicate that *k* values are nearly identical regardless of the location of sample collection. The large-scale test *k* values are all higher than 10^{-7} cm/s with the average *k* at the highest loads near $2x10^{-7}$ cm/s. Measuring the *k* value in the large-scale tests was rather straightforward and the results are reliable (see Appendix A). Determining the effective stress actually present within the sample was less straightforward.

Table 4-10. Results of large-scale rigid-wall *k* tests on remolded specimens (effective stressed calculated from applied loads).

Sample Location	Specimen volume (cm^3)	w_i (%)	w_f (%)	Initial *e*	Final *e*	*k* (cm/s)			
						3.5 kPa	6.9 kPa	13.8 kPa	20.7 kPa
0+20	8711	25.4	23.2	0.695	0.641	--	--	$1.53x10^{-7}$	--
0+70	4435	30.5	24.5	0.841	0.674	--	$2.46x10^{-7}$	$2.03x10^{-7}$	$1.60x10^{-7}$
0+90	5737	35.9	28.5	0.839	0.669	$5.05x10^{-7}$	$4.13x10^{-7}$	--	$2.09x10^{-7}$
1+20	9307	32.2	25.6	0.873	0.704	--	$2.21x10^{-7}$	$1.73x10^{-7}$	$1.43x10^{-7}$
1+30	6227	36.6	27.5	1.008	0.757	--	--	$2.21x10^{-7}$	$1.98x10^{-7}$
Geometric Mean	**6883**	**32.1**	**25.9**	**0.851**	**0.689**	**$5.05x10^{-7}$**	**$2.94x10^{-7}$**	**$1.88x10^{-7}$**	**$1.78x10^{-7}$**

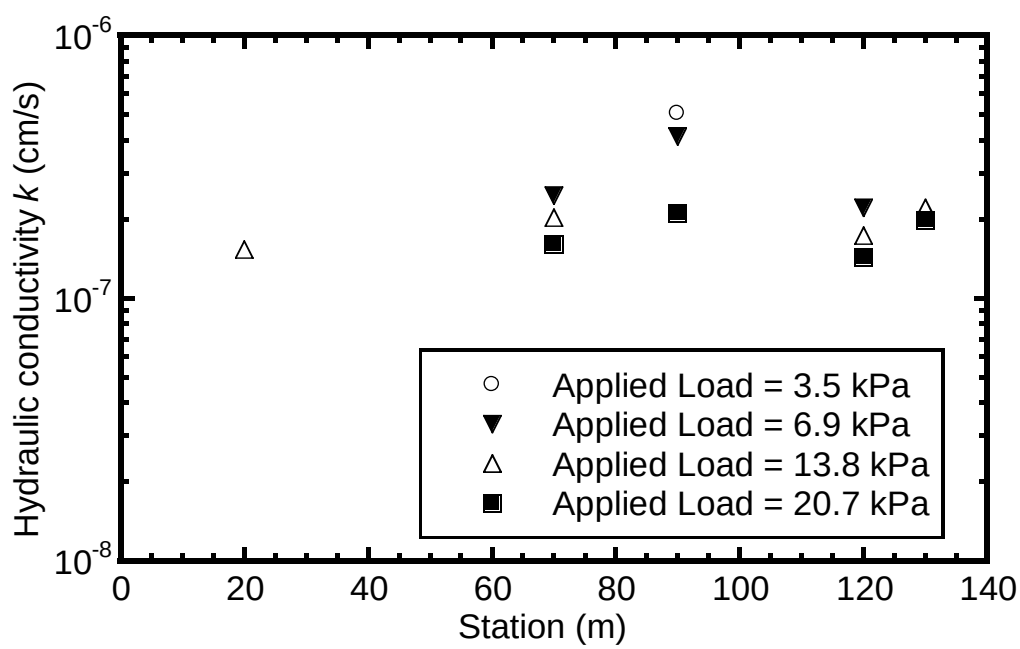


Figure 4-19. Plot of large-scale rigid wall *k* test results of remolded samples from each location.

The effective stresses listed in Table 4-10 were estimated as described in the material and methods by considering the applied load and subtracting the frictional force of the upper pea gravel with the sidewall. The arching of SB load transfer to the sidewall was not included in the effective stress calculation, thus the effective stress at the bottom of the specimen was likely less than the effective stress applied to the top of the specimen. The length of the specimen is likely a factor in how much of the applied load was transferred to the sidewalls.

To investigate the effective stress present within large scale rigid wall samples the average final moisture content was measured to obtain the final void ratio (*e*). The difference between the initial and final void ratio provides some insight into the effective stress actually present in the middle of the specimen at the end of each test. In addition, a complete moisture content profile was measured in one large scale test (station 1+30) at termination (see Table 4-11).

Table 4-11. Final moisture content profile of remolded large-scale rigid wall *k* test from station 1+30.

Sample location in apparatus	**Final MC**	**Final e**
Top	24.6	0.677
Middle Top	27.7	0.762
Middle	28.1	0.771
Middle Bottom	28.4	0.781
Bottom	28.9	0.795
Average	**27.5**	**0.757**

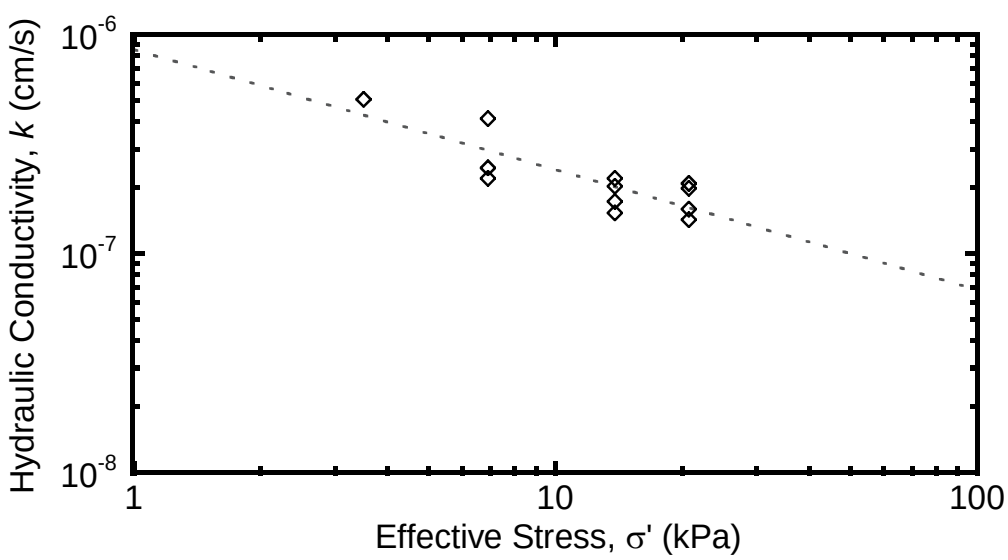


Figure 4-20. Plot of large-scale rigid wall *k* values from remolded samples versus effective stress. Effective stress is estimated from the final void ratio *e* and also calculated from the load applied to the sample neglecting load transfer from the backfill to the sidewall of the apparatus.

4.4.4 In-situ Slug Test Results

A total of forty-eight (48) slug tests were conducted throughout this study For the purposes of this study the Britton et al. (2005) well shape factors were used.

The average slope *m* of all tests in each well is provided in Table 4-12 along with *k* values and other important details. The specific well shape factors (*S*) for each method is provided in

Table 4-3. In Appendix B the *k* value as calculated from each method is presented along with complete tabulated data for each test.

The effective stress measured from the pressure sensors in the wall was used to estimate the effective stress present at each slug well location. The mean value of the vertical, transverse, and longitudinal effective stress was calculated for each depth where a sensor is located (2.4, 4.4, 6.4 m), the effective stress at each slug test well was estimated by interpolating between these depths.

Table 4-12. Summary of slug test results, with *k* values calculated using Britton et al. (2005) well shape factors (S_B = -0.0295 cm).

Well #	Location (m)	Depth (m)	Total # of slug tests	$m_{avg.}$ (h^{-1})	$k_{avg.}$ (cm/s)	$\sigma'_{avg.}$ (kPa)
1	0+31.6	3.0	4	-7.92E-02	**6.50E-07**	11.3
2	0+32.3	6.0	4	-2.73E-02	**2.24E-07**	11.2
3	0+33.0	4.5	4	-2.95E-02	**2.42E-07**	8.7
4	0+56.3	4.5	4	-3.13E-02	**2.57E-07**	8.7
5	0+57.0	6.0	5	-1.87E-02	**1.54E-07**	11.2
6	0+57.6	3.0	6	-3.44E-02	**2.82E-07**	11.3
7	0+78.9	3.0	3	-2.97E-02	**2.44E-07**	11.3
8	0+79.3	4.0	3	-2.66E-02	**2.18E-07**	9.4
9	0+80.0	5.0	7	-3.16E-02	**2.59E-07**	9.7
10	1+21.15	3.0	4	-1.96E-02	**1.61E-07**	11.3
11	1+21.75	6.0	3	-3.10E-02	**2.55E-07**	11.2
12	1+22.4	4.5	3	-3.65E-02	**3.00E-07**	8.7

The *k* values listed in Table 4-12are plotted in Figure 4-21 versus location along the centerline of the wall. The *k* values are all reasonably similar (i.e., between 10^{-7} and $4x10^{-7}$ cm/s) regardless of location or depth, with the exception of the well located at 0+31.6 at 3.0 m depth. This well is located at the south end of the wall where the regional water table was lowest. During the early fall, slug tests were not possible in this well because the water level was below the screened section, the partially saturated condition of the soil in this location was an issue when conducting slug tests. Wet/dry cycling in the backfill in this region of the wall may have contributed to the higher *k* and variability of *k* from test to test. When the slug test well at 0+31.6 was installed the backfill was noticeably stiffer, it is possible that the backfill did not seal up against the well screen and standpipe after installation. The two deeper wells (4.5 and 6.0 m) located adjacent to 0+31.6 have nearly identical average *k* values and every test yielded nearly identical *k*.

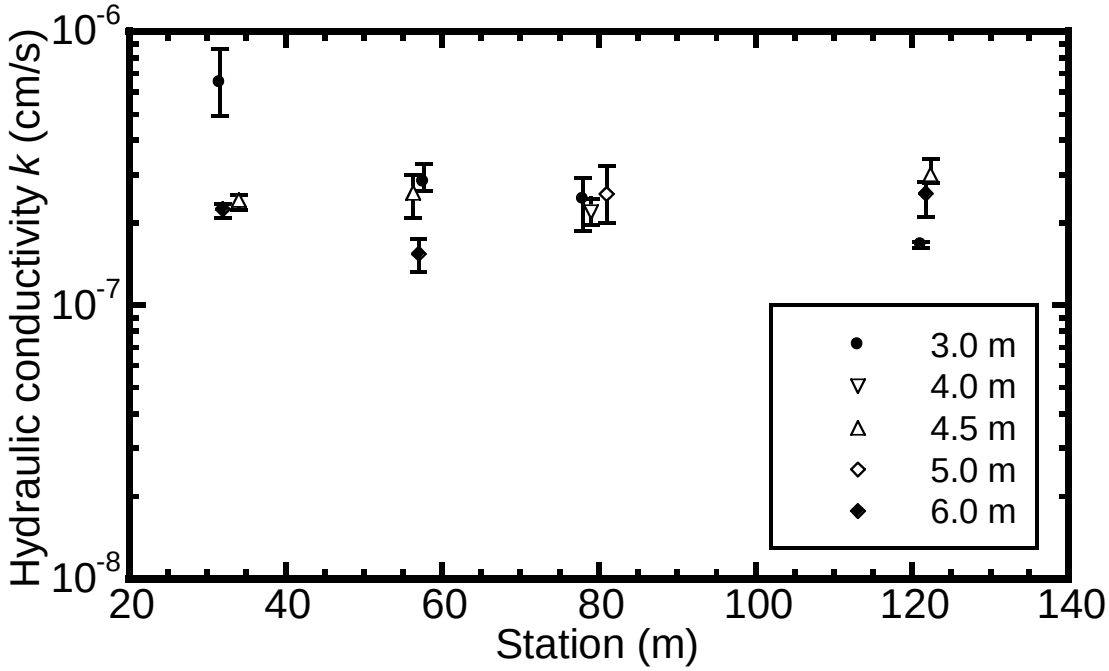


Figure 4-21. Slug test *k* values for each well location computed using shape factor S_B from Britton et al. (2005). Average *k* values for all tests performed in each well are shown with markers; error bars represent the maximum and minimum *k* values obtained in each well.

To better understand the higher *k* measured at 0+31.6 at 3.0 m depth an investigation into the adjacent water table is useful. Figure 4-22 is a plot of the average water elevation on each side of the wall with the highest and lowest water elevations shown. The average depth from the surface to the water table is deepest on the south end of the wall. As expected, on the west side of the wall (down-gradient) the water is lower than on the east side (up-gradient). At 0+30 the lowest water depth is considerably below 3.0 m on both sides of the wall as opposed to the other three locations where the water level on just the down-gradient side of the wall falls slightly below 3.0 m.

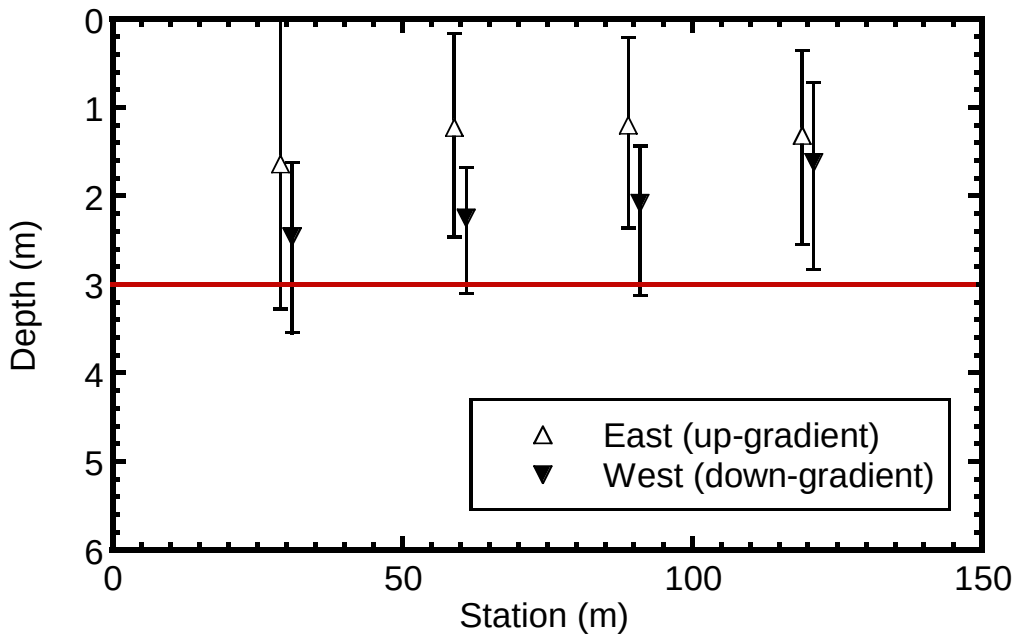


Figure 4-22. Plot showing average, highest, and lowest water depth in monitoring wells adjacent to Montandon SB wall.

To further investigate the higher *k* value measured in the 0+31.6, 3.0 m slug test well, an undisturbed sample was collected from 0+31 from 2.4 to 2.8 m. The results (see Table 4-5 and Figure 4-15) of flexible-wall *k* tests on specimens collected from station 0+31 indicate that the *k* value is the same as other locations in the wall (~1.20×10^{-7} cm/s at 6.9 kPa effective stress). The higher *k* values measured in the 0+31.6 m slug test well are not completely understood, yet the consistent results from this location indicate that *k* in this region may be higher despite the results from an undisturbed sample collected nearby. One interesting observation is that the rate of rise slug test performed at this location resulted in the highest *k* value.

The total stress and pore pressure measurements from the pressure sensor cages located at 0+84 m wall were used to estimate the effective stress at each well location (see Table 4-12). Because the pressure sensor cages are located at station 0+84 m, the stress measurements form the cages likely do not represent the exact stress condition at the 12 slug test well locations, but are a good estimation. The effective stress was interpolated by depth between the cages. Figure 4-23 plots the average measured *k* value from each slug test well versus the estimated effective stress (mean effective stress of x, y, and z directions for a given depth). Error bars show the highest and lowest *k* value measured in each well.

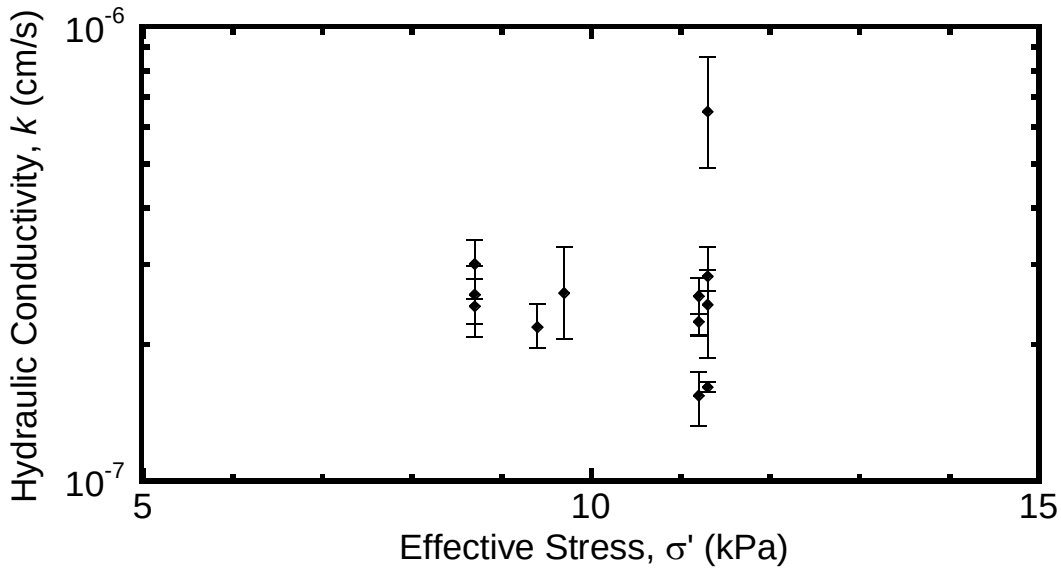


Figure 4-23. Plot of *k* from slug tests versus average effective stress. Markers denote the average *k* for all tests performed in each well, and error bars show likely range of effective stress present at the **in-situ test location.**

Both rate-of-rise tests and rate-of-fall tests were conducted in each well. Table 4-13 lists the average *k* value at each well for rate-of-rise and rate-of-fall tests and the number of each type of test performed. The data listed in Table 4-13 is plotted in Figure 4-24 below. Figure 4-24 reveals differences in *k* based on rate-of-rise tests relative to those based on rate-of-fall tests. In most cases, the average *k* from rate-of-fall tests in a given well was lower than the average *k* from the rate-of-rise tests. However, the differences are relatively small (i.e., within a factor of 2; see Table 4-13 and Figure 4-14), and the results of an unpaired *t* test indicated that there is not a statistically significant difference between the mean *k* from all of the rate-of-rise and the mean *k* from all of the rate-of-fall tests ($p = 0.64$).

Effect of Slug Initial Height (H_{SO})

Slug tests in soft SB backfill may be affected by the compressibility and low strength of the material. The height of the initial slug induced (H_{SO}) in the well may affect the results of the test. Comparing the measured *k* to the initial slug height is one way to assess the effect of compressibility or fracturing on the measured *k* value. Figure 4-25 below is a plot of *k* versus the initial slug height (H_{SO}) for every slug test performed in this study (slug tests performed at 0+31.6, 3 m are plotted separately as outliers). Rate of rise and rate of fall tests are plotted in separate series so that effects of hydraulic fracturing or consolidation surrounding the screen could be assessed. The trend line fitting the rate of rise series is nearly horizontal, indicating that the initial slug height did not affect the measured *k*. The rate of fall test trend line shows a slight to moderate increase in *k* as H_{SO} increases. If H_{SO} is high enough induce a greater pressure than the effective stress, hydraulic fracturing will occur and *k* would be much higher.

Table 4-13. Comparison of rate of fall versus rate of rise slug tests for each well.

Well #	Location (m)	Depth (m)	# of rate of fall tests	Avg. *k* rate of fall	# of rate of rise tests	Avg. *k* rate of rise
1	0+31.6	3.0	2	**5.45×10^{-7}**	1	**8.61×10^{-7}**
2	0+32.3	6.0	3	**2.29×10^{-7}**	1	**2.08×10^{-7}**
3	0+33.0	4.5	3	**2.39×10^{-7}**	1	**2.52×10^{-7}**
4	0+56.3	4.5	3	**2.53×10^{-7}**	1	**2.66×10^{-7}**
5	0+57.0	6.0	2	**1.41×10^{-7}**	3	**1.62×10^{-7}**
6	0+57.6	3.0	3	**2.70×10^{-7}**	2	**2.95×10^{-7}**
7	0+78.9	3.0	1	**1.86×10^{-7}**	2	**2.73×10^{-7}**
8	0+79.3	4.0	2	**2.05×10^{-7}**	1	**2.45×10^{-7}**
9	0+80.0	5.0	3	**2.89×10^{-7}**	4	**2.37×10^{-7}**
10	1+21.15	3.0	3	**1.59×10^{-7}**	1	**1.65×10^{-7}**
11	1+21.75	6.0	2	**2.77×10^{-7}**	1	**2.09×10^{-7}**
12	1+22.4	4.5	3	**3.00×10^{-7}**	0	--
Average of all wells			**2.5**	**2.58×10^{-7}**	**1.5**	**2.65×10^{-7}**

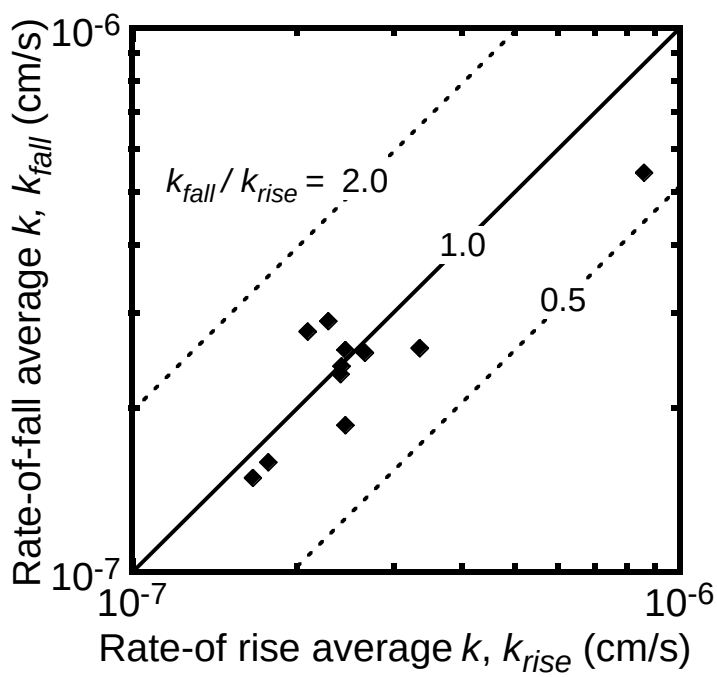


Figure 4-24. Plot of rate-of-rise *k* versus rate-of-fall *k*.

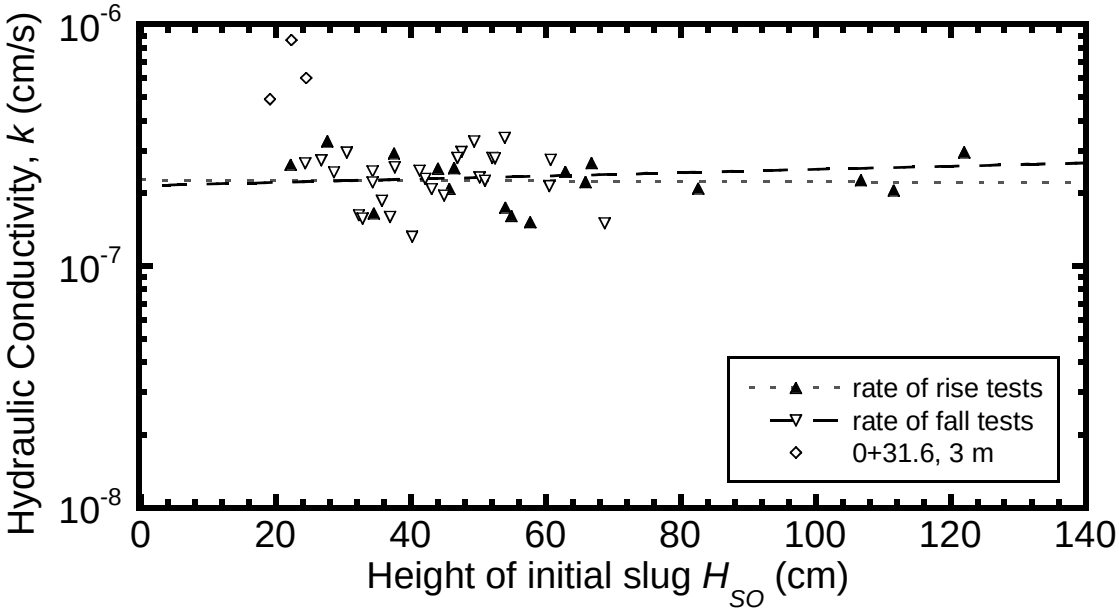


Figure 4-25. Plot of *k* versus the initial slug height for each slug test performed in the Montandon SB wall.

The moderate increase of *k* observed in Figure 4-25 indicates that hydraulic fracturing did not occur in the rate of fall slug tests, although the rate of fall tests with H_{SO} > 50 cm generally plot above the trend line while the majority of rate of fall tests with H_{SO} < 50 cm are lower. For this study small slugs (20-60 cm) were typically added to the well. The rate of rise tests show a slight decrease in *k* as the slug height is increased. When pulling water out of the well the hydraulic pressure is reduced, increasing the effective stress in the SB surrounding the screen. If the effective stress is increased for significant periods of time, consolidation will occur and *k* will be lower. The very slight decrease of *k* with increasing H_{SO} shown in Figure 4-25 indicates that consolidation around the screen did not occur to the point that *k* was reduced. The linear nature of H_S/H_{SO} plots indicate that compressibility of the backfill was not an issue during slug tests (see Appendix B).

Figure 4-25 includes the *k* measured from every slug test performed in the Montandon SB wall over the course of this study. The value of *k* measured from slug tests ranges from 1.32×10^{-7} cm/s to 8.61×10^{-7} cm/s, the geometric mean value of *k* is 2.68×10^{-7} cm/s and the standard deviation is 1.25×10^{-7} cm/s.

The slug test *k* values presented thus far have all been calculated using the Britton et al. (2005) well shape factor S_B. As discussed previously, several researchers have proposed well shape factors to interpret slug test data in SB cutoff walls (see

Table **4-3** and Figure 4-10). The range of *k* values calculated from the different methods corresponds directly to the well shape factor obtained from the different methods (i.e., *k* varies proportionally with *S*; see Eq. 4-1). To show the range of *k* values obtained by different methods for determining *S*, the average *k* values calculated from all tests at each well location using the seven different well shape factors in Table 4-3 are listed in Table 4-15. Also, the influence of the different values of *S* on *k* is illustated in Figure 4-26 by plotting the average *k* values for each method in Table 4-15 (k_i, where the subscript *i* refers to the different shape factors obtained from the different studies)

normalized with respect to the average k obtained using the shape factor S_B from Britton et al. (2005) (i.e., k_B). As shown in Figure 4-9 the difference in S, and hence k, is very small between the different methods of calculating S, with the exception of Lim et al. (2014) assuming a no-flux boundary condition. Lim et al. (2014) acknowledges that this could never represent the field condition.

Table 4-14. Comparison of average k values from slug tests at each well based on shape factors determined from Hvorslev 1951 (k_H), Britton et al. 2005 (k_B and k_{BF}), Zlotnik et al. 2010 (k_Z), Lim et al. 2014 (k_L and k_{LF}), and Bouwer and Rice 1986 (k_{BR}) based on the shape factors given in

Table 4-3.

Well Location (m)	Depth (m)	Hydraulic Conductivity k (cm/s)						
		k_H	k_B	k_{BF}	k_L	k_{LF}	k_Z	k_{BR}
0+31.6	3.0	8.22×10^{-7}	6.50×10^{-7}	8.34×10^{-7}	5.68×10^{-7}	1.33×10^{-6}	7.32×10^{-7}	5.20×10^{-7}
0+32.3	6.0	3.07×10^{-7}	2.24×10^{-7}	2.70×10^{-7}	2.13×10^{-7}	4.97×10^{-7}	2.75×10^{-7}	2.53×10^{-7}
0+33.0	4.5	3.17×10^{-7}	2.42×10^{-7}	2.87×10^{-7}	2.19×10^{-7}	5.11×10^{-7}	2.82×10^{-7}	2.32×10^{-7}
0+56.3	4.5	3.39×10^{-7}	2.57×10^{-7}	3.09×10^{-7}	2.34×10^{-7}	5.42×10^{-7}	3.02×10^{-7}	2.55×10^{-7}
0+57.0	6.0	2.11×10^{-7}	1.54×10^{-7}	1.77×10^{-7}	1.46×10^{-7}	3.40×10^{-7}	1.88×10^{-7}	1.77×10^{-7}
0+57.6	3.0	3.92×10^{-7}	2.82×10^{-7}	3.71×10^{-7}	2.71×10^{-7}	6.32×10^{-7}	3.49×10^{-7}	2.47×10^{-7}
0+78.9	3.0	2.98×10^{-7}	2.44×10^{-7}	2.69×10^{-7}	2.06×10^{-7}	4.81×10^{-7}	2.66×10^{-7}	1.88×10^{-7}
0+79.3	4.0	2.89×10^{-7}	2.18×10^{-7}	2.50×10^{-7}	2.00×10^{-7}	4.66×10^{-7}	2.57×10^{-7}	2.08×10^{-7}
0+80.0	5.0	3.36×10^{-7}	2.59×10^{-7}	3.06×10^{-7}	2.32×10^{-7}	5.42×10^{-7}	3.00×10^{-7}	2.66×10^{-7}
1+21.2	3.0	2.20×10^{-7}	1.61×10^{-7}	1.88×10^{-7}	1.52×10^{-7}	3.55×10^{-7}	1.96×10^{-7}	1.51×10^{-7}
1+21.8	6.0	3.37×10^{-7}	2.55×10^{-7}	2.99×10^{-7}	2.33×10^{-7}	5.43×10^{-7}	3.00×10^{-7}	2.85×10^{-7}
1+22.4	4.5	3.96×10^{-7}	3.00×10^{-7}	3.55×10^{-7}	2.74×10^{-7}	6.39×10^{-7}	3.53×10^{-7}	3.07×10^{-7}

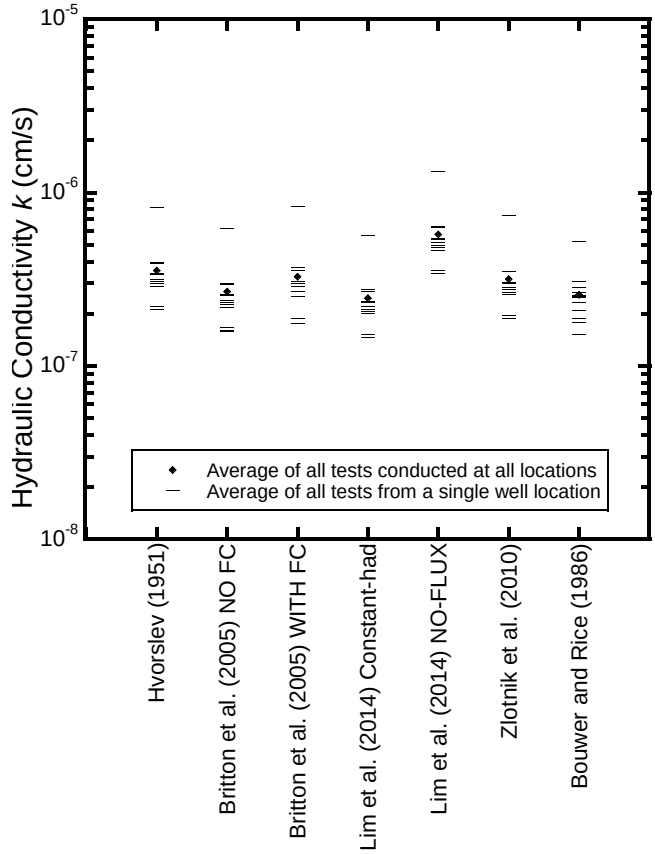


Figure 4-26. Comparison of the influence of different methods of estimating *S* on *k*.

When interpreting slug test data the most important consideration is the height of the slug, H_S (distance from water level inside the standpipe to the equilibrium water level of the surrounding aquifer). Throughout the test, the water in the standpipe returns to the equilibrium water level H_{wt}, as water flows in/out of the well. A basic assumption used when interpreting slug test data is that H_{wt} remains constant during the test. However, slug tests in SB backfill generally take several days to reach equilibrium, even with small slugs of water and a small standpipe diameter. The reality of conducting slug tests over several days is that natural fluctuations in H_{wt} will likely occur during the test. In general, slug tests should be performed during periods when such fluctuations are expected to be small (e.g., when precipitation events do not occur during or just prior to the test). To compensate for changes in the regional water table, H_{wt} can be adjusted based on measured changes in water levels from adjacent monitoring wells during the test. These adjustments can only be performed when adjacent monitoring well data are available (as was the case in this study) or if two slug test wells are within a reasonable proximity and one is used as a control to monitor fluctuations of the regional water levels.

All of the data presented thus far (e.g., in Tables 4-13 to 4-15, and Figures 4-22, 4-24, and 4-26) was interpreted based on adjusted values of H_{wt}. Hourly readings from monitoring wells adjacent to the wall and nearby the slug test well were used to correct H_{wt} (and therefore H_S) hourly during the test. In practice, slug test data may not be accompanied by information regarding the surrounding water levels (i.e., adjacent monitoring wells or another slug test well nearby). Therefore, all of the slug tests conducted in this study also were interpreted by assuming a constant

(static) H_{wt}. The static H_{wt} was typically chosen as the equilibrium water level at the end of the test. The reason this is the best choice is because H_S/H_{S0} is most sensitive to error at the end of the test when H_S is small. The end of test static H_{wt} typically also corresponds to the adjusted H_{wt} at the end of the test. The static H_{wt} is the best value possible chosen without information from adjacent monitoring wells. Table 4-15 provides the average k values and slopes m from each well calculated based on both the static and adjusted H_{wt}.

As shown in Table 4-15 and also in Figure 4-27, differences in k based on a static H_{wt} versus an adjusted H_{wt} are minor (i.e., well within a factor of two in all cases). These results indicate that, as long as major fluctuations of the regional water table do not occur during the slug test, a single static water level can be reasonably assumed for the test. However, adjacent groundwater monitoring is prudent, at least for providing confidence that estimates of k are not significantly affected by fluctuations in H_{wt} and to ensure that the proper H_{S0} is selected.

Table 4-15. Average k values and slopes m from each well as calculated by assuming a static equilibrium water level (H_{wt}) and by adjusting the H_{wt} to account for fluctuations.

Well #	Location (m)	Depth (m)	# of slug tests	Adjusted H_{wt}		Static H_{wt}	
				$m_{avg.}$(h^{-1})	$k_{avg.}$ (cm/s)	$m_{avg.}$(h^{-1})	$k_{avg.}$ (cm/s)
1	0+31.6	3.0	3	-7.92E-02	6.50E-07	-9.87E-02	8.10E-07
2	0+32.3	6.0	4	-2.73E-02	2.24E-07	-2.69E-02	2.21E-07
3	0+33.0	4.5	4	-2.95E-02	2.42E-07	-3.39E-02	2.79E-07
4	0+56.3	4.5	4	-3.13E-02	2.57E-07	-3.61E-02	2.97E-07
5	0+57.0	6.0	5	-1.87E-02	1.54E-07	-1.91E-02	1.57E-07
6	0+57.6	3.0	4	-3.44E-02	2.82E-07	-3.33E-02	2.73E-07
7	0+78.9	3.0	3	-2.97E-02	2.44E-07	-3.32E-02	2.72E-07
8	0+79.3	4.0	3	-2.66E-02	2.18E-07	-2.67E-02	2.20E-07
9	0+80.0	5.0	7	-3.16E-02	2.59E-07	-3.00E-02	2.46E-07
10	1+21.15	3.0	4	-1.96E-02	1.61E-07	-2.52E-02	2.07E-07
11	1+21.75	6.0	3	-3.10E-02	2.55E-07	-3.68E-02	3.02E-07
12	1+22.4	4.5	3	-3.65E-02	3.00E-07	-4.08E-02	3.35E-07

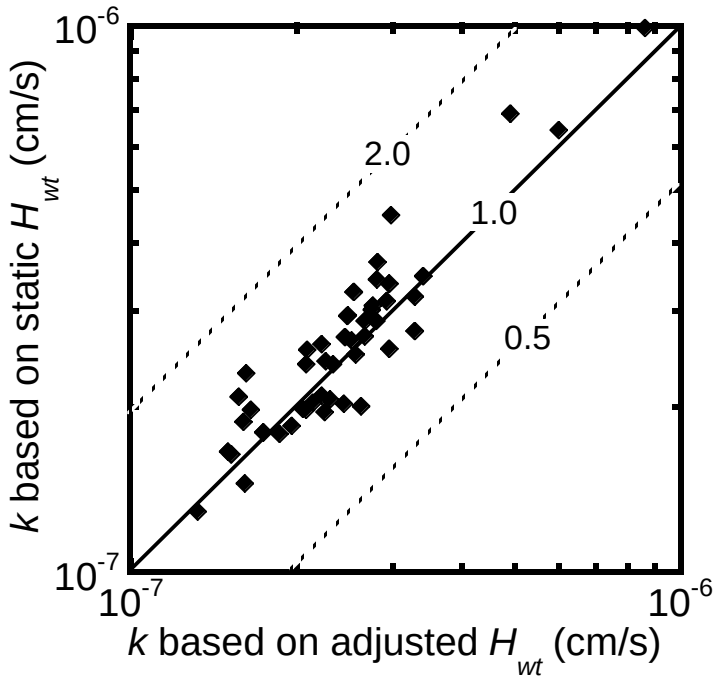


Figure 4-27. Plot of *k* values calculated from assuming a static regional water level versus *k* values calculated by adjusting H_{wt} hourly to reflect fluctuations in the regional water level.

One consideration is that it is absolutely mandatory to adjust water pressure readings to compensate for fluctuations of barometric pressure that inevitably will occur over a testing period. In this study the weather station located at the research site provided hourly barometric pressure readings. Differences in barometric pressure from t=0 were subtracted from the pressure readings obtained from the transducer in the well. If the pressure readings from the slug test well are not corrected for changes in barometric pressure the results will be unstable and interpretation will likely result in an incorrect *k* value.

4.4.5 Influence of Stress on *k*

To assess the overall influence of effective stress on *k*, Figure 4-28 includes plots of *k* versus effective stress for each method of measuring *k* conducted in this study. The trend of decreasing *k* with increasing effective stress is evident in all test methods and sample types, the rate of decrease in *k* varies somewhat depending on method and sample type.

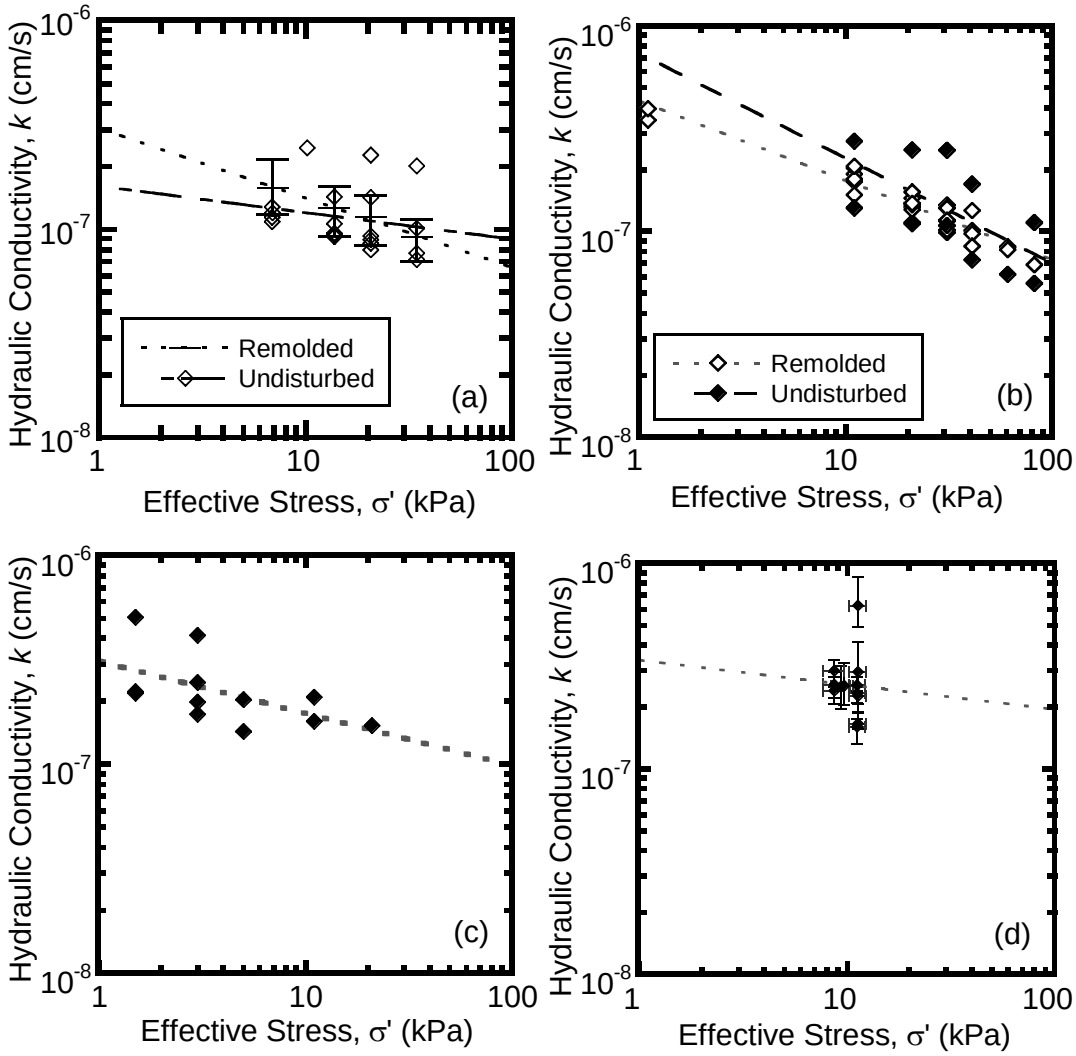


Figure 4-28. Plots of *k* versus effective stress for the different test types employed in the study: (a) flexible-wall tests; (b) rigid-wall (oedometer) tests, (c) large-scale rigid wall tests; and (d) slug tests. Vertical error bars for remolded specimens and slug tests represent maximum and minimum *k* values measured at the given stress (the symbols represent the average k). Horizontal error bars in the slug tests represent the maximum and minimum mean effective stresses measured by the embedded pressure sensors at 0+84 m at the same depth as the middle of the slug test screen.

To directly compare the results of different test types Figure 4-29 (a) combines all data points from all test methods and sample types into a single plot. To simplify all of the *k* measurements versus effective stress from this study Figure 4-29 (b) plots the average *k* value from each laboratory test method and the average *k* from each slug test well with a single trend line that considers all data points shown in Figure 4-29 (b).

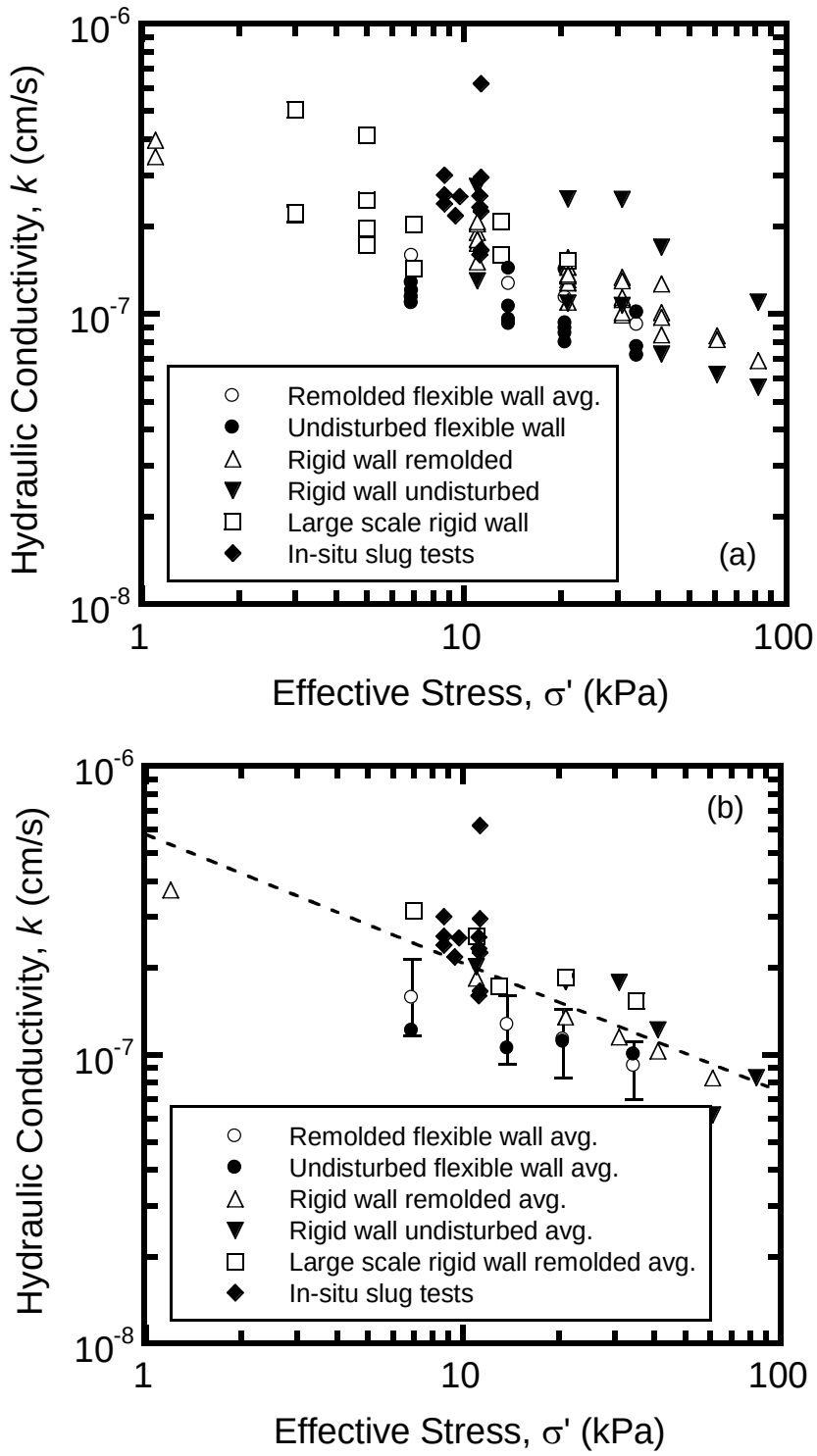


Figure 4-29. (a) Combined plot of *k* versus effective stress including all test methods and specimen types. (b) Combined plot of average *k* versus effective stress including all test methods with trend line representing all methods.

One interesting observation from Figure 4-29 is that nearly all of the laboratory methods of measuring *k* plot below the trend line while most in-situ *k* measurements plot above the trend line. The *k* value is plotted corresponding to the best possible estimated effective stress from the information available. In the case of the flexible wall test the applied affective stress can be calculated with a higher degree of certainty, for the larger scale tests the effective stress was roughly estimated based on final void ratio, the in-situ effective stress is estimated from pressure cages installed within the wall between 8 and 50 meters away from the slug test well. Why the in-situ *k* measurements are generally higher than laboratory *k* values from small samples at similar effective stress is a question that has not been resolved by this study. The large scale rigid wall tests most closely match the *k* values measure in-situ.

In the process of collecting undisturbed samples from the Montandon SB wall several moisture contents measurements were obtained. Figure 4-30 plots the moisture content versus depth of sample collection. It is evident that the depth, location, and date of sampling do not make much difference in the in-situ moisture content of the wall. The exception is the upper wall (<1 m depth) where clearly the backfill is not saturated. The narrow range of moisture content measured in the wall (23-26%, mean=24.2%) indicates that the effective stress present in the wall also with a narrow range.

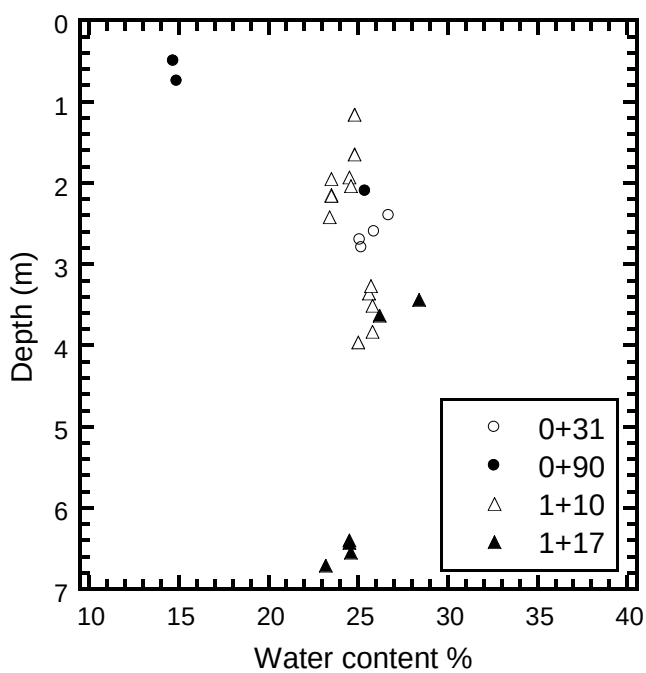


Figure 4-30. Plot of moisture content versus depth in the Montandon SB wall. Sample collection dates are: 0+31 6/12/18, 0+90 6/60/17, 1+10 10/20/17, 1+17 4/20/18.

4.4.6 Spatial Variability of *k*

Variability of the hydraulic conductivity *(k)* is expected to exist with depth and location throughout the Montandon cutoff wall due to various factors such as variability in backfill composition (e.g., fines and bentonite content), variation in stress, variation of consolidation, saturation percentage of the SB at time of testing, the number of wet/dry cycles, and other factors. This study measured *k*

from various locations within the wall using in-situ slug tests and by collecting undisturbed samples and testing those in the laboratory (see Figure 4-1).

Variation of *k* with respect to depth is plotted in Figure 4-31, *k* values from flexible wall tests on undisturbed samples versus depth of sample collection are plotted in Figure 4-31 (a) and *k* values from in-situ slug tests versus depth of test location are plotted in Figure 4-31 (b). Both plots indicate a trend of lower *k* with increasing depth. Figure 4-31 (a) plots the *k* value from each effective stress applied to all seven undisturbed samples collected, the trend line for each effective stress is decreasing with depth. The 6.9 kPa effective stress trend line indicates more gradual decrease than the trend lines of the three higher effective stresses (13.8, 20.7, 34.5 kPa) which all indicate a moderate and similar decrease of *k* with depth. The *k* values from undisturbed samples from shallower depths decreased more with increasing effective stress than at deeper depths. This indicates the deeper samples were already more consolidated before testing and that the shallower samples were consolidated more during testing.

Figure 4-31 (b) plots the *k* value measured from in-situ slug tests as a function of depth, the trend line indicates a moderate decrease of *k* with depth that is similar to the flexible wall undisturbed samples. The trend of decreasing *k* with depth is consistent in both methods of measuring *k*. The in-situ *k* measurements indicate more variability of *k* at lower depths as the highest and second lowest *k* values measured were at 3.0 m. Below 3.0 m the *k* value is nearly steady in the in-situ tests. Decreasing *k* with depth enhances the performance of SB walls as this is where the highest gradient across the wall is present and the largest cross sectional area of most walls exists.

Assessing variability of *k* of the length of the wall is also of interest. All six methods of measuring *k* used in this study (flexible wall remolded and undisturbed, rigid wall remolded and undisturbed, large-scale remolded, and in-situ) provide data regarding variability of *k* with respect to longitudinal location in the wall. Each method is plotted in Figure 4-31 with *k* as a function of location along the wall. The flexible wall remolded sample results shown in Figure 4-31 (a) are likely the best way to assess changes in *k* along the length of the wall because all other factors are nearly identical (gradation, bentonite content, effective stress, etc.).

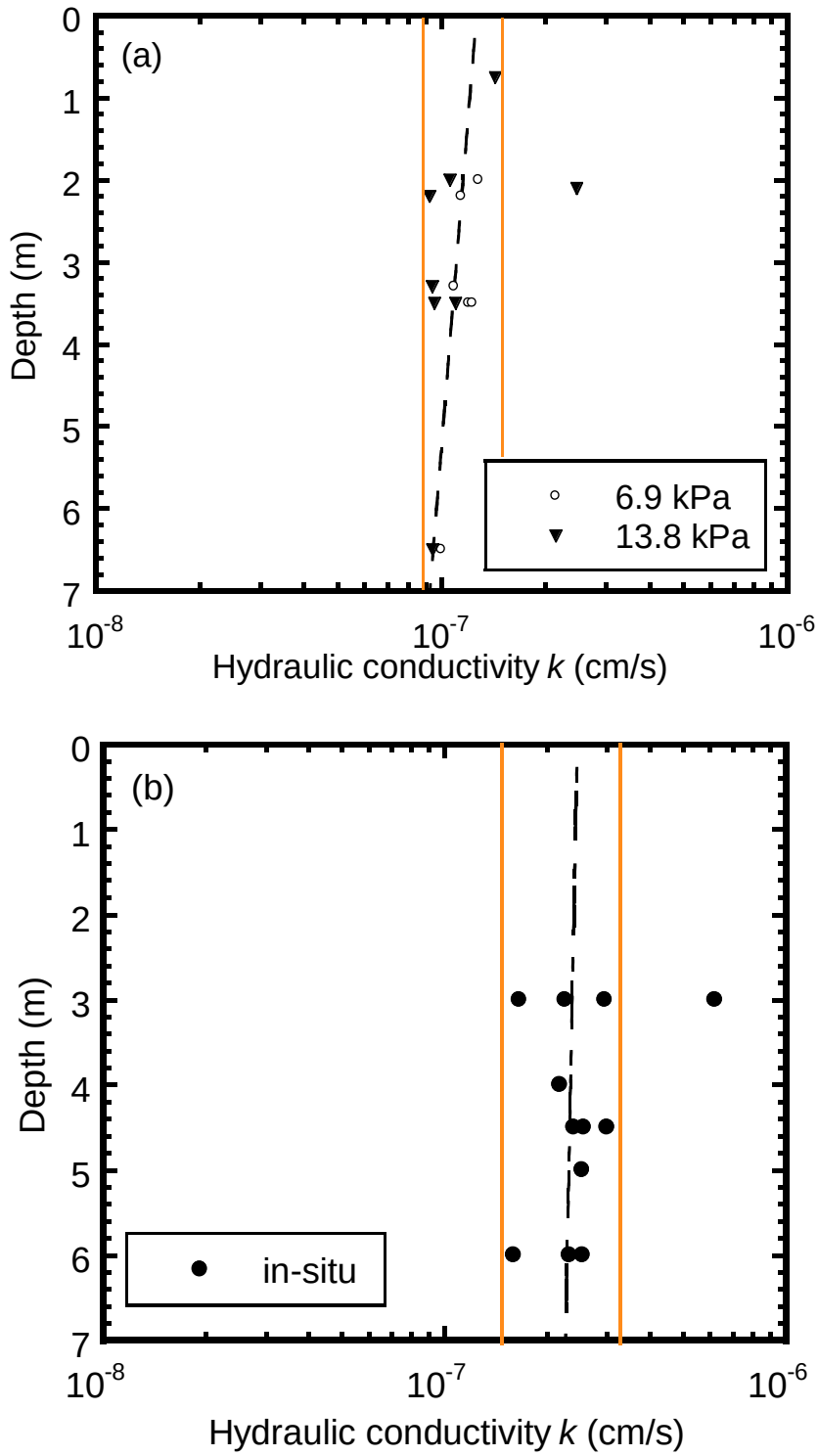


Figure 4-31. Plot of (a) flexible wall *k* test results from undisturbed samples as function of depth, (b) in-situ **slug test results as function of depth.**

The flexible wall remolded samples indicate low variability of *k* along the length of the wall. A slight change in *k* is observed between stations 0+50 and 1+20 which could be attributed to the change in mixing and backfill procedure that occurred in that section to install the pressure monitoring cages. Generally *k* is steady throughout the length of the wall.

Other methods of measuring *k* reveal no trend or significant variability of *k* with respect to location along the wall. To compare all of the available methods of measuring *k* as a function of longitudinal location in the wall Figure 4-32 is a plot of all measurements of *k* from all methods at using a range of effective stresses that is comparable (6.9 kPa for flexible wall *k* tests, 11 kPa for rigid wall oedometer, the measured range of in-situ stress of 7-12 kPa, and the estimated stress range of 3-14 kPa for large scale rigid wall tests). The range of *k* from all of these test methods is between 10^{-7} and 3.0×10^{-7} . No trend of higher or lower *k* with location along the wall is evident.

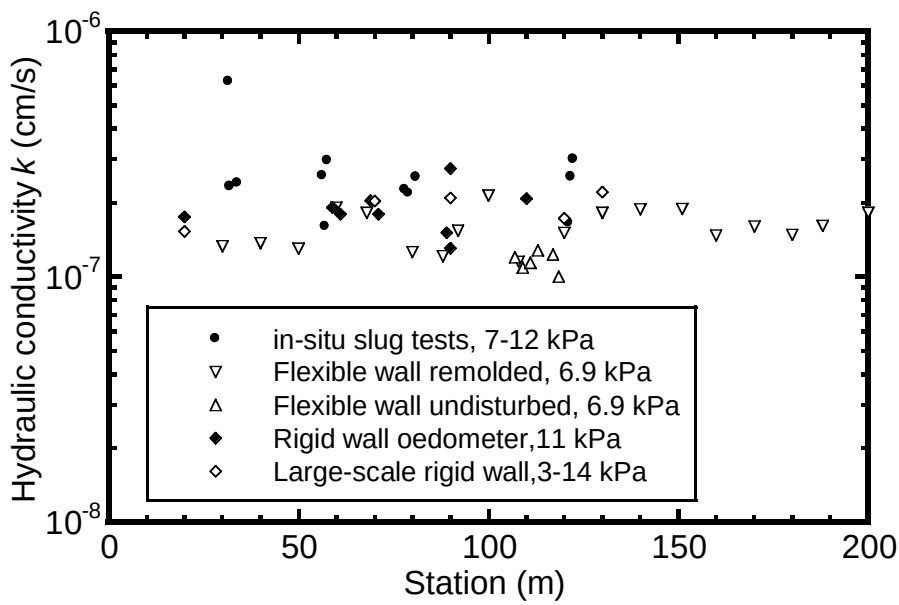


Figure 4-32. Plot of *k* versus location along the Montandon SB wall from all methods at comparable effective stresses.

Variation of *k* across the transverse section was not assessed in this study but could be of interest for future work, especially for bio-remediation barriers and chemical compatibility studies.

As mentioned earlier and is evident in Figure 4-32 the test method affects the measured *k* showing in-situ measurements generally to be slightly higher than laboratory methods. The range of *k* shown in Figure 4-32 is reasonably narrow, providing confidence that all tests are in agreement and were accurate and precise.

A *t* test was performed to compare the results of slug tests to flexible wall tests to see if they are statistically different. Excluding the outlier at 0+31.6, all of the slug test results were compared to flexible wall tests conducted at 6.9 kPa. The t test indicated that the difference between the slug test results and the flexible wall tests at 6.9 kPa are extremely statistically different with a P value of <0.0001.

4.5 Conclusions

The results of this study show that in-situ measurements of backfill hydraulic conductivity *(k)* obtained from slug tests in a field-scale soil-bentonite (SB) cutoff wall compare well with flexible-wall and rigid-wall laboratory *k* tests conducted on remolded or undisturbed backfill specimens at field representative stresses. The *k* values from the slug tests and the larger-scale rigid-wall laboratory tests generally were slightly higher than the flexible-wall *k* values obtained at similar stresses, indicating a slight scale effect associated with the larger test volumes in the slug tests and rigid-wall tests. Also, flexible-wall *k* values obtained at effective stresses greater than the measured field stresses generally were lower than the *k* values from the slug tests. This latter finding underscores the importance of conducting laboratory *k* tests at representative field stresses for SB walls, which tend to be lower than the stresses that would be predicted by assuming a geostatic stress distribution.

Results of the flexible-wall *k* tests on the remolded specimens illustrate the practical implications of conducting the tests at an effective stress representative of the stresses that will be present in the wall after construction. The typical requirement of $k \leq 10^{-7}$ cm/s is met by 19 of the 23 remolded specimens tested at the effective stress of 34.5 kPa. At the lower effective stress of 20.7 kPa, only seven specimens measured $k \leq 1.0\text{x}10^{-7}$ cm/s. At 13.8 kPa, only four specimens exhibited $k \leq 1.0\text{x}10^{-7}$ cm/s, and at 6.9 kPa, none of the specimens exhibited $k \leq 1.0\text{x}10^{-7}$ cm/s. By measuring the *k* of SB backfill at effective stresses of > 20 kPa the results will not represent the in-situ *k* and the design criteria is not met. Given that the measured effective stresses in the backfill generally range from 8-15 kPa, the tests results for the lower effective stresses (6.9-13.8 kPa) are better indicators of the adequacy of the backfill design.

Overall, slug testing appears to be a viable method for determining the post-construction in-situ *k* of SB backfill, provided that the measured pressure heads are adjusted to account for fluctuations in barometric pressure during the test. Fluctuations in the local groundwater table during the test also can be problematic if not accounted for, but can be minimized by avoiding precipitation events.

REFERENCES

Barben, E. J., (2008). Enhanced Clay Barriers: Soil-Bentonite Cutoff Wall Backfill Amended With Activated Carbon. *MS Thesis*, Bucknell University, Lewisburg, PA

Benson, C.H., Gunter, J.A., Boutwell, G.P., Trautwein, S.J., and Berzanskis, P.H. (1997). Comparison of four methods to assess hydraulic conductivity. *Journal of Geotechnical and Geoenvironmental Engineering* 123(10), 929–937.

Bhatia, S.K. (1989). In situ measurement of the permeability of slurry walls. *Proceedings of the International Conference on Soil Mechanics and Foundation Engineering*, Vol. 3, 1475-1478. Published by A.A. Balkema.

Bouwer, H., and Rice, R.C. (1976). A slug test for determining hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells, *Water Resources Research*, 12(3), 423-428

Brand, E.W., and Premchitt, J. (1980). Shape factors of cylindrical piezometers. *Geotechnique*, 30(4), 369-384.

Brigham Young University (1994). GMS version 3.1. Provo, Utah.

Britton, J.P. (2001). Soil-Bentonite Cutoff Walls: Hydraulic Conductivity and Contaminant Transport. *Doctoral dissertation*, Virginia Polytechnic Institute and State University, Blacksburg, VA http://scholar.lib.vt.edu/theses/available/etd-08132001-175622/

Britton, J.P., Filz, G.M., Little, J.C., and Herring, W. (2002). Shape Factors for Single-Well Tests in Soil-Bentonite Cutoff Walls. *Proceedings of the 4th International Congress on Environmental Geotechnics*, ISSMGE, 639-644.

Britton, J.P., Filz, G.M., and Herring, W.E. (2004). Measuring the hydraulic conductivity of soil-bentonite backfill. *Journal of Geotechnical and Geoenvironmental Engineering*, 130(12), 1250-1258.

Britton, J. P., Filz, G. M., & Little, J. C. (2005a). The effect of variability in hydraulic conductivity on contaminant transport through soil–bentonite cutoff walls. *Journal of Geotechnical and Geoenvironmental Engineering*, 131(8), 951-957.

Britton, J.P., Filz, G.M., and Herring, W.E. (2005b). Slug Test in Soil-Bentonite Cutoff Walls Using a Push-In Piezometer Tip, *Waste Containment and Remediation*, Geotechnical Special Publication 142, ASCE, Reston, VA.

Britton, J.P. and Filz, G.M. (2006). Closure to "Measuring the Hydraulic Conductivity of Soil–Bentonite Backfill" by Jeremy P. Britton, George M. Filz, and Wayne E. Herring. *Journal of Geotechnical and Geoenvironmental Engineering*, 132(6), 809-812

Butler, J.J. (1996). Slug tests in site characterization: some practical considerations. *Environmental Geosciences*, 3(2), 154-163.

Chapuis, R.P. (2006). Discussion of "Measuring the Hydraulic Conductivity of Soil–Bentonite Backfill" by Jeremy P. Britton, George M. Filz, and Wayne E. Herring. *Journal of Geotechnical and Geoenvironmental Engineering*, 132(6), 809-812

Choi, H., and Daniel, D.E. (2006a). Slug test analysis in vertical cutoff walls. I: Analysis methods. *Journal of Geotechnical and Geoenvironmental Engineering*, 132(4), 429–438.

Choi, H., and Daniel, D.E. (2006b). Slug test analysis in vertical cutoff walls. II: Applications. *Journal of Geotechnical and Geoenvironmental Engineering*, 132(4), 439–447.

Chung, S.G., Lee, J.M., Jang, W.Y. (2014). Comparing the quality of samples obtained by three types of fixed-piston samplers for soft sensitive clay. *Engineering Geology*, 179, 50-58.

D'Appolonia, D.J., and Ryan, C.R. (1979). Soil-bentonite slurry trench cutoff walls. *Proceedings of Geotechnical Exhibition and Technical Conference*, Chicago, Illinois.

Daniel, D.E., (1984). Predicting hydraulic conductivity of clay liners. *Journal of Geotechnical and Geoenvironmental Engineering*, 110, 285–300.

Evans, J.C. (1993). Vertical cutoff walls, *Geotechnical Practice for Waste Disposal*. D.E. Daniel, ed., Chapman and Hall, London, Chapter 17, 430-454.

Evans, J. C. (1994) Hydraulic Conductivity of Vertical Cutoff Walls, *Hydraulic Conductivity and Waste Contaminant Transport in Soils*, ASTM STP 1142, D. E. Daniel and S. J. Trautwein, Eds., ASTM, Philadelphia, 1994, pp. 79-94.

Evans, J.C. Costa, M. and Cooley, B. (1995). The state of stress in soil-bentonite slurry trench cutoff walls. *ASCE Specialty Conference on Characterization, Containment, Remediation and Performance in Environmental Geotechnics, Geoenvironment 200*0, Geotechnical Special Publication No. 46, ASCE, Reston, VA.

Evans, J.C., and Huang, H. (2016) Hydraulic Conductivity of Soil Bentonite Slurry Walls, *Proceedings of ASCE GeoChicago 2016 Sustainability, Energy, and the Geoenvironment*, 548-557.

Evans, J.C., Huang, H., and Ruffing, D. (2016). Evaluation of Soil-Bentonite Backfill Consolidation Properties, *International Conference on Deep Foundations, Seepage Control and Remediation* (*41st Annual*), New York, NY.

Filz, G.M. (1996). Consolidation stresses in soil-bentonite back-filled trenches. *Proceedings of the 2nd International Congress on Environmental Geotechnics*, M. Kamon, ed., Osaka, Japan, 497-502.

Filz, G.M., Evans, J.C. and Britton, J.P. (2003). Soil-bentonite hydraulic conductivity: measurement and variability. *Proceedings of the 12th PanAmerican Conference on Soil Mechanics and Geotechnical Engineering*, VGE, Essen, Germany, 1323-1328.

Hvorslev, M.J. (1951). Time lag and soil permeability in ground-water observations. Bulletin No. 36, U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg.

Lim, J., Lee, D., Zlotnik, V.A., and Choi, H. (2014), Analytical Interpretation of Slug Test in a Vertical Cutoff Wall. *Ground Water*, 52, 284-290.

Malusis, M.A. and McKeehan, M.D (2013). Chemical compatibility of model soil-bentonite backfill containing multiswellable bentonite. *Journal of Geotechnical and Geoenvironmental Engineering*, 139(2), 189-198.

Malusis, M.A., Barben, E.J., and Evans, J.C. (2009). Hydraulic conductivity and compressibility of a model soil-bentonite backfill amended with activated carbon. *Journal of Geotechnical and Geoenvironmental Engineering*, 135(5), 664-672.

Malusis, M.A., Evans, J.C., Jacob, R.W., Ruffing, D., Barlow, L.C., Marchiori, A.M., (2017). Construction and Monitoring of an Instrumented Soil-Bentonite Cutoff Wall: Field Research Case Study. *29th Central Pennsylvania Geotechnical Conference*, Hershey, PA.

Manassero, M., (1994) Hydraulic Conductivity Assessment of Slurry Wall Using Piezocone Test, *Journal of Geotechnical Engineering*, 1725-1746 Volume 120 Number 10

Napoleoni Q., Ottaviani M. (1999). In situ permeability of a slurry wall. *Proceedings of the Sardinia 7th International Waste Management and Landfill Symposium*, S. Margherita di Pula, Cagliari.

Replogle, M.A., and Malusis, M. A. (2017). Impact of Mix Water Quality on Bentonite-Water Slurry for Soil-Bentonite Cutoff Wall Applications. *Geotechnical Frontiers 2017*, 468-477

Ruffing, D.G. (2009). A reevaluation of the state of stress in soil-bentonite cutoff walls. *MS Thesis*, Bucknell University, Lewisburg, PA.

Ruffing, D.G., Evans, J.C., and Malusis, M.A. (2011). Evaluations of lateral earth pressure in a soil-bentonite slurry trench cutoff wall. *Proceedings, 14th Pan-American Conference on Soil Mechanics and Geotechnical Engineering*, CD-ROM (ISBN 978-0-920505-47-2).

Ruffing, D.G., Evans, J.C. & Ryan, C.R. (2015). Strength and Stress Estimation in Soil Bentonite Slurry Trench Cutoff Walls Using Cone Penetration Test Data. *IFCEE 2015*, Geotechnical Special Publication 256, 2567-2576, ASCE, Reston, VA.

Sano, K., Takai, A., Inui, T., Katsumi, T., Kamon, M., Yoshimura, M., Araki, S., 2012. Quality assessment of SBM cut-off wall using piezocone. *Proceedings of Geo-Environmental Engineering 2012*, 171-178.

Shackelford, C.D., and Javed, F. (1991). Large-scale laboratory permeability testing of a compacted clay soil. *Geotechnical Testing Jour*nal, 14(2), 171–179.

Takai, A., Inui, T., and Katsumi, T. (2016). Evaluating the hydraulic barrier performance of soil-bentonite cutoff walls using the piezocone penetration test. *Soils and Foundations*, 56(2), 277-290.

Tallard, G. (1984). Slurry Trenches for Containing Hazardous Wastes. Civil Engineering, Feb. 1984, 41-45.

Tavenas, F., Diene, M., and Lerouiel, S. (1990). Analysis of the in situ constant head permeability test in clays. *Canadian Geotechnical Journal*, 27, 305-314.

Teeter, R.M., and Clemence, S.P. (1986). In-Place Permeability Measurement of Slurry Trench Cutoff Walls. *Proceedings of In Situ Tests in Geotechnical Engineering*, June 23-25, 1986 Blacksburg, VA, 1049-1051.

Thiem, G. (1906). "Hydrologische methoden" (in German*). Leipzig: J. M. Gebhardt*: 56

Yeo, S.-S., Shackelford, C. D. and Evans J. C. (2005). Consolidation and hydraulic conductivity of nine model soil-bentonite backfills. *Journal of Geotechnical and Geoenvironmental Engineering*, 131(10), 1189-1198.

Zlotnik, V.A., D. Goss, and G.M. Duffield. 2010. General steady-state shape factor for a partially penetrating well. *Ground Water* 48 (1), 111–116.

APPENDIX A

Results of Laboratory Hydraulic Conductivity Testing.

Flexible Wall *k* Tests

Remolded Samples		
0+20	0+90 (a)	1+70
0+30 (a)	0+90 (b)	1+80
0+30 (b)	1+00	1+90 (a)
0+40	1+10	1+90 (b)
0+50	1+20	2+00
0+60	1+30	Base Soil (a)
0+70 (a)	1+40	Base Soil (b)
0+70 (b)	1+51	
0+80	1+60	
Undisturbed Samples		
0+67 2.1 m	1+10 (a) 2.0 m	1+17 (a) 3.5 m
0+90 0.75 m	1+10 (b) 2.2 m	1+17 (b) 6.5 m
	1+10 (c) 3.3 m	
	1+10 (d) 3.5 m	

Oedometer Rigid Wall

Remolded Samples		
0+20	0+70 (a)	1+10
0+60 (a)	0+70 (b)	Base Soil (a)
0+60 (b)	0+90	Base Soil (b)
Undisturbed Samples		
0+90 (a) 0.75 m	0+90 (b) 0.5 m	

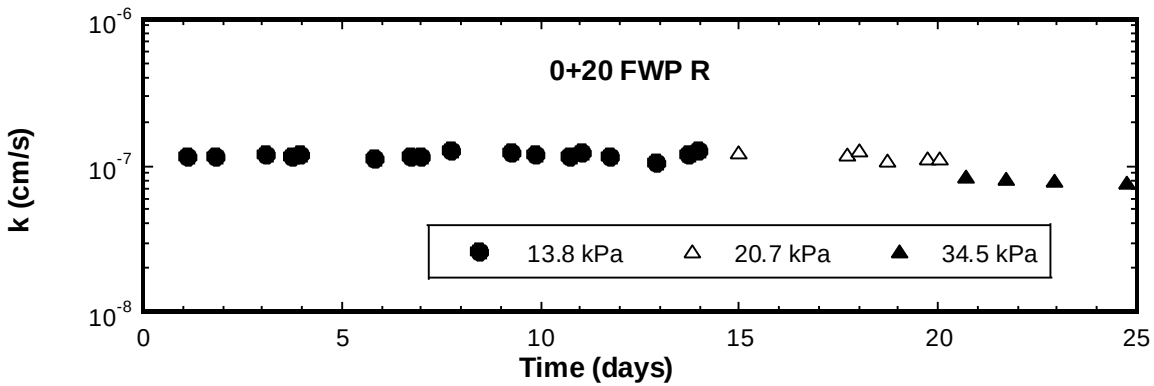
Large Scale Rigid Wall

Remolded Samples		
0+20	0+90	1+30
0+70	1+20	

Flexible Wall *k* Tests

Remolded Samples

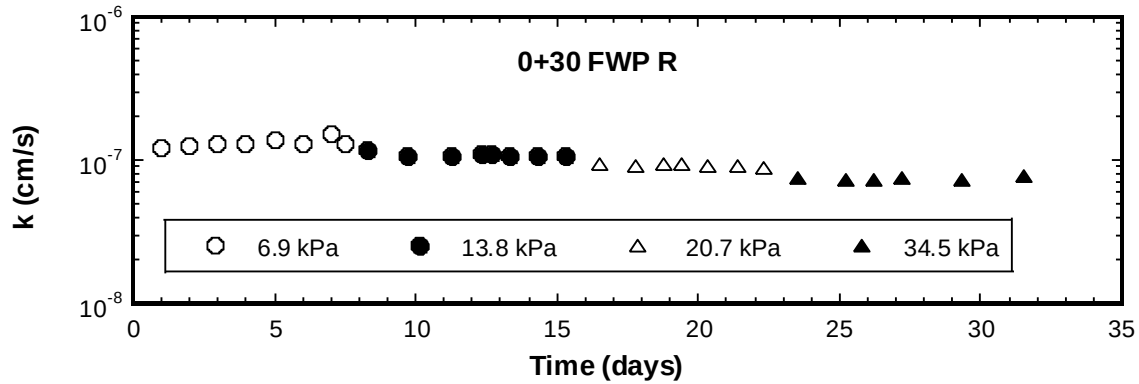
Sample Location:	0+20	Final Sample Cross-Sectional Area (cm^2):	34.21
Depth:	Surface	Final Sample Length (cm):	7.71
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	28.6	Conversion Factor (burette reading to cm):	1.143
Final MC (%):	21.9		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
97200	55.1	47.5	39.3	11.7	1.3	0.8	22.0	12.4	3.3	13.0	108.6	95.5	**1.30E-07**	0.28
61200	55.1	47.5	39.3	11.7	12.4	3.3	13	13.4	6.4	9.6	95.5	88.1	**1.30E-07**	0.91
109200	55.1	47.5	39.3	11.7	13.4	6.4	9.6	14.9	11.8	4.3	88.1	75.8	**1.34E-07**	1.02
55200	55.1	47.5	39.3	11.7	14.9	11.8	4.3	15.7	14.2	2.0	75.8	70.5	**1.31E-07**	1.04
20280	55.1	47.5	39.3	11.7	15.7	14.2	2	16.2	15.1	1.2	70.5	68.5	**1.35E-07**	1.13

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
10740	55.1	47.5	39.3	11.7	17.4	20.5	20	17.6	21.0	19.5	83.8	82.7	**1.25E-07**	1.00
79080	55.1	47.5	39.3	11.7	0.7	1.1	24.2	1.2	5.9	19.5	110.8	100.0	**1.28E-07**	1.02
21000	55.1	47.5	39.3	11.7	1.2	5.9	19.5	1.5	7.1	18.3	100.0	97.2	**1.30E-07**	1.00
63000	55.1	47.5	39.3	11.7	1.5	7.1	18.3	1.8	10.4	15.0	97.2	89.7	**1.26E-07**	1.00
130980	55.1	46.9	38.6	12.4	1.8	10.4	15	2.3	16.2	9.0	89.7	76.2	**1.22E-07**	0.97
54600	54.4	46.9	38.6	11.7	2.3	16.2	9	2.4	18.3	6.8	76.2	71.3	**1.20E-07**	0.95
76020	55.1	46.9	38.6	12.4	2.4	18.3	6.8	2.8	21.1	4.3	71.3	65.2	**1.15E-07**	1.12
25320	54.4	46.2	38.6	12.1	2.8	21.1	4.3	3.1	21.8	3.4	58.2	56.3	**1.24E-07**	0.78
60120	54.4	46.2	38.6	12.1	3.1	21.8	3.4	3.2	23.6	1.8	56.3	52.5	**1.17E-07**	1.13
98760	54.4	46.2	38.6	12.1	3.2	0.9	24.3	3.6	5.4	19.7	104.1	93.7	**1.05E-07**	0.98
73200	54.4	46.2	38.6	12.1	3.6	5.4	19.7	3.8	8.9	16.1	93.7	85.6	**1.21E-07**	0.97
20040	54.4	46.2	38.6	12.1	3.8	8.9	16.1	3.9	9.8	15.1	85.6	83.4	**1.26E-07**	0.90
23520	65.5	54.4	41.3	17.6	5.8	6	17.9	6.0	7.8	16.0	147.2	143.0	**1.22E-07**	0.95
232980	65.5	54.4	41.3	17.6	6	7.8	16	6.9	22.5	0.1	143.0	108.0	**1.18E-07**	0.92
28320	65.5	54.4	41.3	17.6	6.9	0.8	23.7	6.9	3.2	21.1	159.8	154.1	**1.26E-07**	0.92
60660	65.5	54.4	41.3	17.6	6.9	3.2	21.1	7.1	7.9	17.0	154.1	144.0	**1.09E-07**	1.15
64140	65.5	54.4	41.3	17.6	7.1	9.5	14.9	7.3	13.8	10.5	139.8	129.9	**1.13E-07**	0.98
28560	65.5	54.4	41.3	17.6	7.3	13.8	10.5	7.5	15.7	8.8	129.9	125.8	**1.11E-07**	1.12
56460	82.7	55.1	41.3	34.5	2.9	0.2	24.1	9.2	0.5	17.4	168.0	160.0	**8.48E-08**	0.04
87540	82.7	55.1	41.3	34.5	9.2	0.5	17.4	9.8	5.3	12.5	160.0	148.9	**8.05E-08**	0.98
102600	82.7	55.1	41.3	34.5	9.8	5.3	12.5	9.8	10.3	7.2	148.9	137.1	**7.87E-08**	0.94
157680	82.7	55.1	41.3	34.5	9.8	10.3	7.2	11.1	17.5	0.5	137.1	121.2	**7.66E-08**	1.07

Sample Location:	0+30 (a)	**Final Sample Cross-Sectional Area (cm^2):**	**36.10**
Depth:	Surface	Final Sample Length (cm):	7.94
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	28.6	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.9		

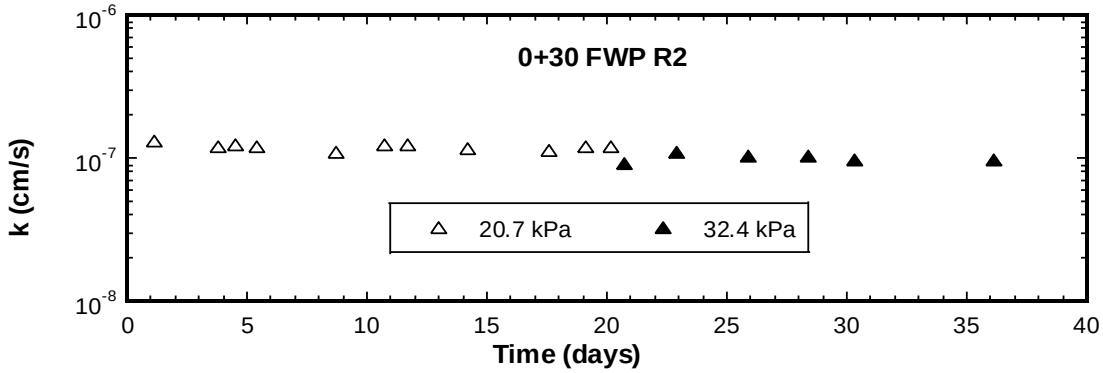


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
105300	34.5	27.6	24.1	8.6	0.6	0.6	24.9	5.9	1.2	19.9	62.9	56.5	**9.82E-08**	0.12
87240	34.5	27.6	24.1	8.6	5.9	1.2	19.9	7.1	2.7	18.1	56.5	52.8	**7.63E-08**	0.83
88200	34.5	27.6	24.1	8.6	7.1	2.7	18.1	7.9	4.0	16.7	52.8	49.7	**6.59E-08**	0.93
86160	34.5	27.6	24.1	8.6	7.9	4	16.7	8.5	5.0	15.6	49.7	47.3	**5.54E-08**	0.91
85380	34.5	27.6	24.1	8.6	8.5	5	15.6	8.9	5.9	14.6	47.3	45.1	**5.31E-08**	0.90
87060	34.5	27.6	24.1	8.6	8.9	5.9	14.6	9.2	6.6	13.7	45.1	43.3	**4.58E-08**	0.78
87180	34.5	27.6	24.1	8.6	9.2	6.6	13.7	9.5	7.3	12.9	43.3	41.6	**4.47E-08**	0.88
78840	34.5	27.6	24.1	8.6	9.5	7.3	12.9	9.7	7.8	12.4	41.6	40.4	**3.41E-08**	1.00

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
91860	34.5	27.6	24.1	8.6	9.7	7.8	12.4	9.9	9.8	10.5	40.4	36.0	**1.23E-07**	1.05
87300	34.5	27.6	24.1	8.6	9.9	9.8	10.5	10.2	11.5	8.8	36.0	32.1	**1.26E-07**	1.00
86700	34.5	27.6	24.1	8.6	10.2	11.5	8.8	10.3	13.0	7.2	32.1	28.5	**1.30E-07**	0.94
87660	34.5	27.6	24.1	8.6	10.3	13	7.2	10.4	14.4	5.8	28.5	25.3	**1.31E-07**	1.00
83940	34.5	27.6	24.1	8.6	10.4	14.4	5.8	10.5	15.6	4.5	25.3	22.5	**1.38E-07**	0.92
86880	34.5	27.6	24.1	8.6	10.5	15.6	4.5	10.6	16.7	3.4	22.5	20.0	**1.32E-07**	1.00
89520	34.5	27.6	24.1	8.6	10.6	16.7	3.4	10.8	17.8	2.2	20.0	17.3	**1.52E-07**	0.92
84120	34.5	27.6	24.1	8.6	10.8	17.8	2.2	11.0	18.3	1.6	17.3	16.1	**8.63E-08**	0.83
87000	34.5	27.6	24.1	8.6	11	18.3	1.6	11.2	18.5	1.4	16.1	15.6	**3.20E-08**	1.00
85440	34.5	27.6	24.1	8.6	11.2	0.4	24.7	11.4	1.9	22.9	62.9	59.2	**6.97E-08**	0.83
86400	34.5	27.6	24.1	8.6	11.4	1.9	22.9	11.4	3.2	21.4	59.2	56.0	**6.21E-08**	0.87
109800	34.5	27.6	24.1	8.6	11.4	3.2	21.4	11.6	4.5	20.1	56.0	53.0	**4.79E-08**	1.00
39840	34.5	27.6	24.1	8.6	12.2	4.5	19.5	12.1	5.8	18.4	52.3	49.6	**1.30E-07**	1.18
87300	34.5	31.0	24.1	6.9	12.1	5.8	18.4	12.2	8.2	16.0	84.7	79.2	**7.39E-08**	1.00
122760	34.5	31.0	24.1	6.9	12.2	8.2	16	12.3	11.2	12.9	79.2	72.3	**7.23E-08**	0.97
133860	41.3	31.0	24.1	13.8	12.9	11.2	12.5	13.5	13.5	9.8	71.8	66.1	**5.97E-08**	0.85
75780	41.3	31.0	24.1	13.8	13.5	13.5	9.8	13.7	14.7	8.5	66.1	63.2	**5.62E-08**	0.92
83340	41.3	31.0	24.1	13.8	13.7	14.7	8.5	13.9	21.6	2.2	63.2	48.1	**3.15E-07**	1.10
70380	41.3	31.0	24.1	13.8	14.7	4.3	16.9	14.9	7.4	13.9	84.7	77.7	**1.18E-07**	1.03
123240	41.3	31.0	24.1	13.8	14.9	7.4	13.9	15.0	11.5	9.2	77.7	67.7	**1.08E-07**	0.87
130680	41.3	31.0	24.1	13.8	15	11.5	9.2	15.0	15.4	5.0	67.7	58.4	**1.09E-07**	0.93
91920	41.3	31.0	24.1	13.8	15	15.4	5	15.2	17.9	2.3	58.4	52.5	**1.13E-07**	0.93
36840	41.3	31.0	24.1	13.8	15.2	17.9	2.3	15.2	18.8	1.3	52.5	50.3	**1.11E-07**	0.90

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
47640	41.3	31.0	24.1	13.8	15.2	0.1	24.6	15.3	2.3	22.3	98.3	93.2	**1.09E-07**	0.96
84660	41.3	31.0	24.1	13.8	15.3	2.3	22.3	15.4	5.9	18.5	93.2	84.7	**1.08E-07**	0.95
88020	41.3	31.0	24.1	13.8	15.4	5.9	18.5	15.4	9.3	15.0	84.7	76.8	**1.07E-07**	0.97
102660	50.3	35.1	24.1	20.7	16	0.2	24.8	17.1	5.3	18.2	140.6	127.2	**9.38E-08**	0.77
112320	50.3	35.1	24.1	20.7	17.1	5.3	18.2	17.9	10.9	12.4	127.2	114.2	**9.27E-08**	0.97
84300	50.3	35.1	24.1	20.7	17.9	10.9	12.4	18.0	14.8	8.4	114.2	105.2	**9.42E-08**	0.98
51600	50.3	35.1	24.1	20.7	18	14.8	8.4	18.2	17.0	6.1	105.2	100.0	**9.37E-08**	0.96
84660	50.3	35.1	24.1	20.7	18.2	17	6.1	18.3	20.4	2.6	100.0	92.2	**9.28E-08**	0.96
91200	50.3	35.1	24.1	20.7	18.4	0.2	25	18.5	5.3	19.8	140.8	129.1	**9.23E-08**	0.98
80460	50.3	35.1	24.1	20.7	18.5	5.3	19.8	18.7	9.4	15.7	129.1	119.7	**9.03E-08**	1.00
104580	64.1	35.1	24.1	34.5	22.2	0.3	24.7	23.8	4.4	19.0	140.4	129.2	**7.67E-08**	0.72
142320	64.1	35.1	24.1	34.5	23.8	4.4	19	24.2	10.2	13.0	129.2	115.7	**7.47E-08**	0.97
89220	64.1	35.1	24.1	34.5	0.3	0.2	24.7	1.1	4.1	20.5	140.5	131.2	**7.37E-08**	0.93
85620	64.1	35.1	24.1	34.5	1.1	4.1	20.5	1.2	7.8	16.8	131.2	122.7	**7.55E-08**	0.99
182160	64.1	35.1	24.1	34.5	1.2	7.8	16.75	1.6	14.9	9.9	122.7	106.8	**7.37E-08**	1.04
188580	64.1	35.1	24.1	34.5	1.6	14.9	9.9	1.8	21.2	2.9	106.8	91.6	**7.84E-08**	0.90

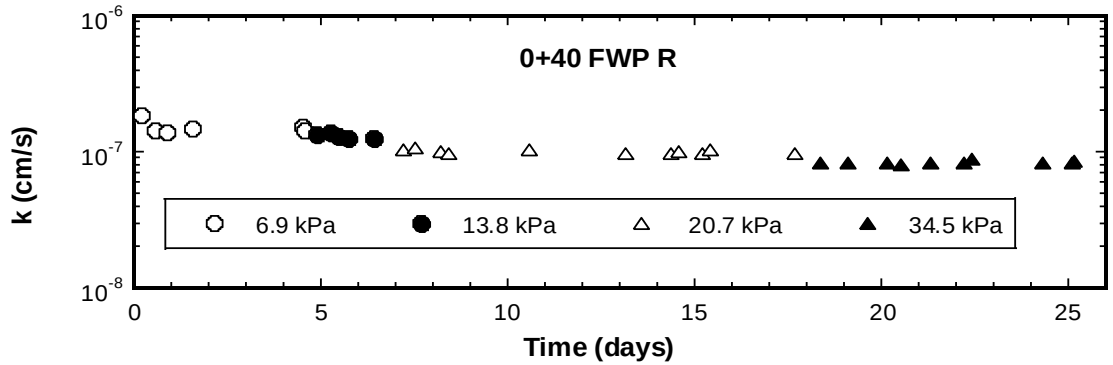
Sample Location:	0+30 (b)	**Final Sample Cross-Sectional Area (cm^2):**	**39.65**
Depth:	Surface	Final Sample Length (cm):	7.00
Sample Type:	Remolded flexible wall	Burette Cross-Sectional Area (cm^2):	5.185
Initial MC (%):	27.0	Conversion Factor (burette to cm):	1.146
Final MC (%):	23.1		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
95400	365.2	351.4	337.6	20.7	6.2	0.8	21.0	6.8	2.5	18.8	163.7	159.3	**1.33E-07**	0.77
145800	363.8	350.7	337.6	19.6	6.8	2.5	18.8	7.1	3.9	17.1	152.2	148.7	**7.41E-08**	0.82
85500	363.8	350.7	336.2	20.3	7.1	3.9	17.1	7.8	5.3	15.3	162.7	159.1	**1.22E-07**	0.77
59280	363.8	350.7	336.2	20.3	7.8	5.3	15.3	8.0	6.3	14.1	159.1	156.5	**1.23E-07**	0.83
82020	363.8	350.7	336.2	20.3	8.0	6.3	14.1	8.2	7.6	12.5	156.5	153.2	**1.20E-07**	0.80
281400	363.8	350.7	335.5	20.7	8.2	7.6	12.5	8.7	11.9	7.7	160.2	149.8	**1.09E-07**	0.89
177600	363.8	350.7	338.3	19.3	8.9	13.7	5.8	9.2	15.9	3.2	117.5	112.0	**1.24E-07**	0.84
80700	365.2	350.0	337.6	21.4	9.2	15.9	3.2	9.3	16.9	2.1	112.0	109.6	**1.23E-07**	0.90

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
219600	365.9	350.7	343.8	18.6	9.7	0.0	24.0	9.9	2.3	21.6	97.8	92.4	**1.18E-07**	0.95
297000	366.5	350.7	343.1	19.6	9.9	2.3	21.6	10.0	5.3	18.4	99.4	92.3	**1.14E-07**	0.93
130200	367.2	350.0	342.4	21.0	10.0	5.3	18.4	10.1	6.6	17.0	92.3	89.2	**1.20E-07**	0.92
86700	367.2	350.0	341.7	21.4	10.1	6.6	17.0	10.2	7.5	16.0	96.3	94.1	**1.21E-07**	0.89
50400	388.6	364.5	348.6	32.0	11.0	10.4	12.7	11.1	11.1	12.0	164.3	162.6	**9.23E-08**	0.92
189000	387.2	363.8	348.6	31.0	11.1	11.1	12.0	11.1	14.1	8.9	155.6	148.6	**1.11E-07**	0.96
255600	388.6	364.5	348.6	32.0	11.1	14.1	8.9	11.2	17.8	5.0	155.6	147.0	**1.02E-07**	0.95
218880	388.6	363.8	347.9	32.7	11.2	17.8	5.0	11.3	20.9	1.9	147.0	139.9	**1.04E-07**	0.99
162000	389.3	365.2	350.0	31.7	11.3	0.4	23.8	11.6	3.0	21.0	181.4	175.3	**9.80E-08**	0.92
501360	387.2	365.2	349.3	30.0	11.6	3.0	21.0	11.7	10.9	12.9	182.3	163.9	**9.68E-08**	0.97

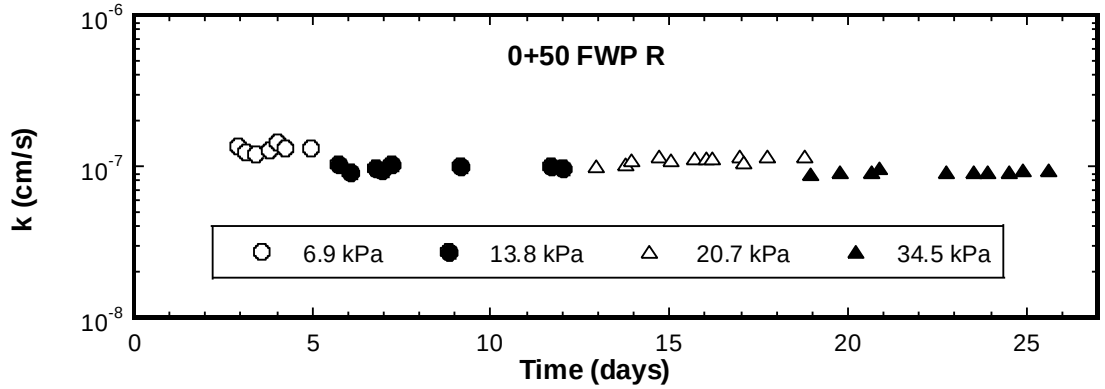
Sample Location:	0+40	**Final Sample Cross-Sectional Area (cm^2):**	**34.21**
Depth:	Surface	Final Sample Length (cm):	7.60
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	25.8	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.3		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
1140	34.5	31.0	24.1	6.9	5.3	0.4	21.5	5.5	0.5	21.4	94.5	94.2	**1.72E-07**	1.00
50040	34.5	31.0	24.1	6.9	5.5	0.5	21.4	8.1	3.2	17.5	94.2	86.7	**1.35E-07**	0.69
24180	34.5	31.0	24.1	6.9	8.1	3.2	17.5	9.3	4.5	15.9	86.7	83.4	**1.30E-07**	0.81
62100	34.5	31.0	24.1	6.9	9.3	4.5	15.9	10.3	8.1	12.2	83.4	75.0	**1.37E-07**	0.97
251460	34.5	31.0	24.1	6.9	10.3	0.8	24.5	11.5	16.1	9.2	97.4	62.5	**1.43E-07**	1.00
7680	34.5	31.0	24.1	6.9	11.5	16.1	9.2	11.5	16.4	8.8	62.5	61.7	**1.36E-07**	0.75
26580	41.3	31.0	24.1	13.8	14.3	15.1	7.7	15.4	15.8	6.2	61.9	59.4	**1.26E-07**	0.47
30300	41.3	31.0	24.1	13.8	0.5	0.4	24.4	1.3	2.2	22.1	97.8	93.1	**1.31E-07**	0.78
17340	41.3	31.0	24.1	13.8	1.3	2.2	22.1	1.6	3.2	21.0	93.1	90.7	**1.22E-07**	0.91

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
23400	41.3	31.0	24.1	13.8	1.6	3.2	21	1.7	4.6	19.7	90.7	87.6	**1.20E-07**	1.08
59040	41.3	31.0	24.1	13.8	1.7	4.6	19.7	2.1	7.9	16.7	87.6	80.3	**1.18E-07**	1.08
67800	50.3	35.1	24.1	20.7	3	8	16.1	3.8	11.3	10.9	121.8	112.1	**1.19E-07**	0.63
28260	50.3	35.1	24.1	20.7	3.8	11.3	10.9	6.0	13.0	9.2	112.1	108.2	**1.22E-07**	1.00
59340	50.3	35.1	24.1	20.7	6	13	9.2	6.3	16.3	6.2	108.2	100.9	**1.14E-07**	1.08
18300	50.3	35.1	24.1	20.7	6.3	16.3	6.15	6.4	17.2	5.3	100.9	98.9	**1.10E-07**	1.00
186780	50.3	35.1	24.1	20.7	6.5	0.8	24.4	7.1	13.4	12.4	139.5	111.4	**1.17E-07**	1.05
222360	50.3	35.1	24.1	20.7	7.1	13.4	12.4	7.8	24.6	1.8	111.4	86.5	**1.11E-07**	1.06
104220	50.3	35.1	24.1	20.7	7.8	0.5	23.4	8.3	7.5	17.0	138.7	123.4	**1.09E-07**	1.09
17520	50.3	35.1	24.1	20.7	8.3	7.5	18.7	8.3	8.6	17.6	125.3	122.8	**1.13E-07**	1.00
57780	50.3	35.1	24.1	20.7	8.3	8.6	17.6	8.5	12.1	14.2	122.8	114.9	**1.12E-07**	1.03
14820	50.3	35.1	24.1	20.7	8.5	12.1	14.2	8.5	13.0	13.3	114.9	112.9	**1.19E-07**	1.00
195360	50.3	35.1	24.1	20.7	8.5	13	13.3	9.2	23.0	3.5	112.9	90.3	**1.12E-07**	1.02
60120	64.1	35.1	24.1	34.5	2.9	4.5	23.4	5.0	7.0	19.2	134.1	126.5	**9.53E-08**	0.60
66420	64.1	35.1	24.1	34.5	5	7	19.2	5.2	10.4	15.8	126.5	118.7	**9.30E-08**	1.00
89700	64.1	35.1	24.1	34.5	5.2	10.4	15.8	5.5	14.7	11.5	118.7	108.9	**9.39E-08**	1.00
29520	64.1	35.1	24.1	34.5	5.5	14.7	11.5	5.7	16.0	10.2	108.9	105.9	**9.13E-08**	1.00
70920	64.1	35.1	24.1	34.5	5.7	16	10.2	5.8	19.1	7.2	105.9	98.9	**9.36E-08**	1.03
74400	64.1	35.1	24.1	34.5	5.8	19.1	7.2	6.1	22.2	4.3	98.9	92.1	**9.41E-08**	1.07
21900	64.1	35.1	24.1	34.5	6.1	1.1	24.2	6.1	2.4	22.8	138.9	135.9	**9.99E-08**	0.93
160200	64.1	35.1	24.1	34.5	6.1	2.4	22.8	6.6	11.0	14.4	135.9	116.4	**9.39E-08**	1.02
69300	64.1	35.1	24.1	34.5	6.6	11	14.4	6.8	14.4	11.1	116.4	108.8	**9.57E-08**	1.03
4200	64.08	35.14	24.12	34.45	6.8	14.4	11.1	6.9	14.6	10.9	108.8	108.3	**9.77E-08**	1.00

Sample Location:	0+50	**Final Sample Cross-Sectional Area (cm^2):**	**38.48**
Depth:	Surface	Final Sample Length (cm):	6.80
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	33.3	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.8		

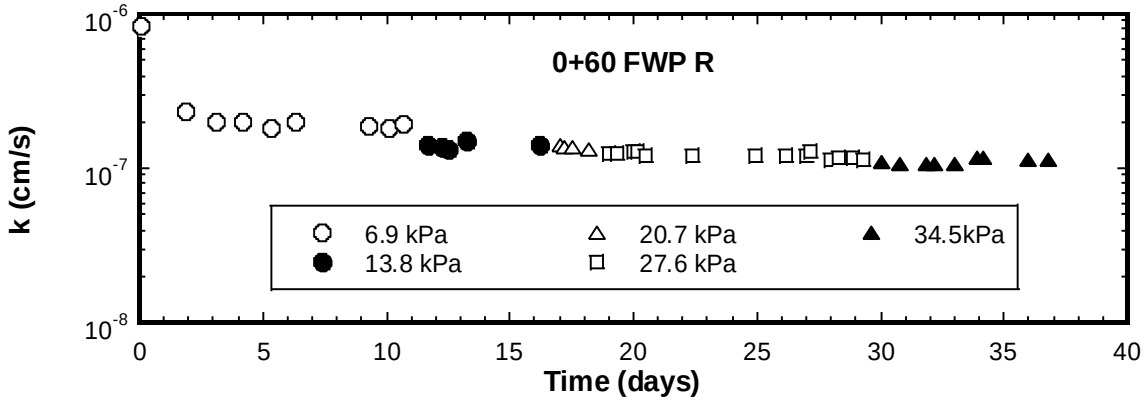


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
252120	34.5	31.0	24.1	6.9	1.5	1.9	24.5	8.4	16.0	9.5	96.2	62.9	**1.37E-07**	0.94
19380	34.5	31.0	24.1	6.9	8.4	16	9.5	8.7	16.8	8.7	62.9	61.1	**1.24E-07**	1.00
25500	34.5	31.0	24.1	6.9	8.7	16.8	8.7	9.2	17.8	7.7	61.1	58.8	**1.22E-07**	1.00
30840	34.5	31.0	24.1	6.9	9.2	17.8	7.7	9.8	19.0	6.5	58.8	56.1	**1.26E-07**	1.00
17640	34.5	31.0	24.1	6.9	0.6	0.4	24.2	0.9	1.7	22.9	97.5	94.6	**1.43E-07**	1.00
23580	34.5	31.0	24.1	6.9	0.9	1.7	22.9	1.1	3.2	21.3	94.6	91.0	**1.26E-07**	0.94
59160	34.5	31.0	24.1	6.9	1.1	3.2	21.3	2.0	6.9	17.7	91.0	82.7	**1.26E-07**	1.02

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
67380	41.3	31.0	24.1	13.8	5.2	6.1	16	7.3	8.4	12.1	81.7	74.6	**1.04E-07**	0.59
28800	41.3	31.0	24.1	13.8	7.3	8.4	12.1	7.7	9.5	11.0	74.6	72.1	**9.23E-08**	1.00
59040	41.3	31.0	24.1	13.8	7.7	9.5	11	8.3	11.7	8.7	72.1	66.9	**9.72E-08**	0.96
18840	41.3	31.0	24.8	13.4	8.3	11.7	8.7	8.4	12.3	8.1	59.9	58.5	**9.53E-08**	1.00
21060	41.3	31.0	23.4	14.1	8.4	0.2	24.3	8.6	1.4	23.0	104.9	102.1	**1.02E-07**	0.92
165660	41.3	31.0	24.1	13.8	8.6	1.4	23	9.6	9.4	14.9	95.0	76.6	**1.01E-07**	0.99
221460	41.3	31.0	24.1	13.8	9.6	9.4	14.9	10.9	17.6	6.6	76.6	57.8	**9.89E-08**	0.99
25860	41.3	31.0	24.1	13.8	10.9	17.6	6.6	11.0	18.4	5.8	57.8	55.9	**9.64E-08**	1.00
82740	50.3	35.1	24.1	20.7	11.6	5.6	23.8	14.3	10.5	16.8	133.3	119.7	**1.01E-07**	0.70
71820	50.3	35.1	24.1	20.7	14.3	10.5	16.8	14.6	15.3	12.0	119.7	108.8	**1.04E-07**	1.00
14100	50.3	35.1	24.1	20.7	14.6	15.3	12	14.7	16.2	11.0	108.8	106.6	**1.11E-07**	0.90
65700	50.3	35.1	24.1	20.7	0.5	1.8	24.3	0.7	7.5	18.5	138.3	125.1	**1.18E-07**	0.98
27900	50.3	35.1	24.1	20.7	0.7	7.5	18.5	0.9	9.6	16.3	125.1	120.2	**1.11E-07**	0.95
55860	50.3	35.1	24.1	20.7	0.9	9.6	16.3	1.1	13.8	12.2	120.2	110.7	**1.14E-07**	1.02
33000	50.3	35.1	24.1	20.7	1.1	13.8	12.2	1.3	16.0	9.9	110.7	105.6	**1.12E-07**	0.96
13380	50.3	35.1	24.1	20.7	1.3	16	9.9	1.4	16.9	9.0	105.6	103.5	**1.14E-07**	1.00
64500	50.3	35.1	24.1	20.7	1.4	16.9	9	1.5	21.0	4.8	103.5	94.0	**1.16E-07**	0.98
8760	50.3	35.1	24.1	20.7	1.5	21	4.8	1.6	21.5	4.3	94.0	92.9	**1.08E-07**	1.00
57780	50.3	35.1	24.1	20.7	1.6	1.0	24.2	1.7	6.0	19.1	139.1	127.5	**1.16E-07**	0.98
89940	50.3	35.1	24.1	20.7	1.7	6.0	19.1	2.0	13.0	12.1	127.5	111.5	**1.16E-07**	1.00
16380	64.1	35.1	24.1	34.5	6.4	11.5	9.9	7.0	12.1	8.7	110.7	108.7	**8.88E-08**	0.50
70740	64.1	35.1	24.1	34.5	7	12.1	8.7	7.4	15.8	4.7	108.7	99.9	**9.25E-08**	0.93
75360	64.1	35.1	24.1	34.5	7.4	15.8	4.7	7.8	19.5	0.9	99.9	91.3	**9.23E-08**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
21240	64.1	35.1	24.1	34.5	7.8	0.4	24.4	7.8	2.0	22.8	140.0	136.3	**9.66E-08**	1.00
160020	64.1	35.1	24.1	34.5	7.8	2.0	22.8	8.4	12.3	12.3	136.3	112.5	**9.28E-08**	0.98
69180	64.1	35.1	24.1	34.5	8.4	12.3	12.3	8.7	16.2	8.4	112.5	103.6	**9.25E-08**	1.00
33000	64.1	35.1	24.1	34.5	8.7	16.2	8.4	8.8	17.9	6.6	103.6	99.6	**9.25E-08**	0.94
48780	64.1	35.1	24.1	34.5	8.8	17.9	6.6	9.0	20.3	4.1	99.6	94.0	**9.19E-08**	0.96
35820	64.1	35.1	24.1	34.5	9	20.3	4.1	9.1	22.0	2.3	94.0	90.0	**9.41E-08**	0.94
60060	64.1	35.1	24.1	34.5	9.1	0.7	21.3	9.1	4.9	17.1	136.1	126.5	**9.44E-08**	1.00

Sample Location:	0+60	**Final Sample Cross-Sectional Area (cm^2):**	**33.90**
Depth:	Surface	Final Sample Length (cm):	7.00
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	30.9	Conversion Factor (burette to cm):	1.143
Final MC (%):	22.1		

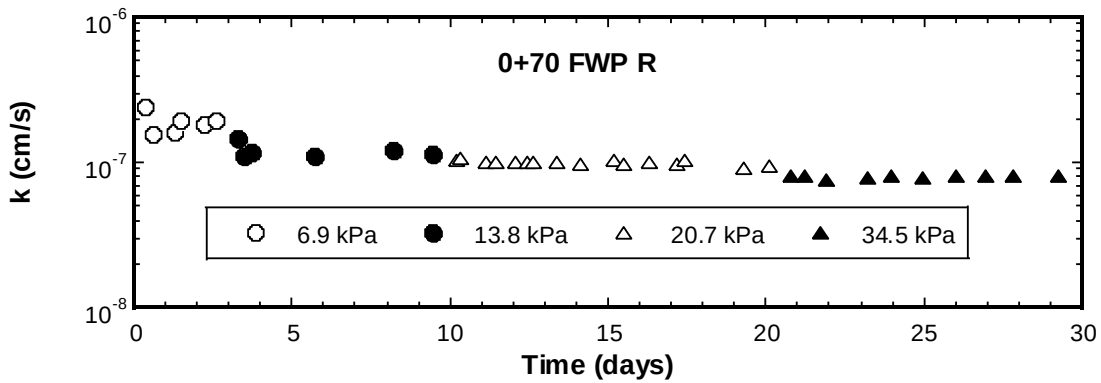


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
5760	34.5	31.0	24.1	6.9	7.8	3.0	22.9	15.1	2.0	17.6	93.1	88.2	**8.17E-07**	0.19
159000	34.5	31.0	24.1	6.9	6.8	0.5	20.3	17.4	10.6	3.1	93.0	61.8	**2.23E-07**	0.59
103380	34.5	30.3	24.1	7.2	2	0.7	24.5	4.8	8.1	15.6	90.5	71.9	**1.94E-07**	0.83
95820	34.5	30.3	24.1	7.2	4.8	8.1	15.6	5.7	14.1	9.4	71.9	57.9	**1.95E-07**	0.97
99840	34.5	30.3	24.1	7.2	5.7	14.1	9.4	6.5	18.8	4.7	57.9	47.1	**1.79E-07**	0.99
80940	34.5	29.6	24.1	7.6	6.5	0.5	23.5	6.9	6.3	17.5	82.6	69.1	**1.91E-07**	0.97
261540	34.5	30.3	24.1	7.2	6.9	6.3	17.5	7.8	20.2	3.3	76.1	44.0	**1.82E-07**	0.98
70320	34.5	31.0	24.1	6.9	7.9	1.2	23.9	8.1	6.9	18.2	96.3	83.3	**1.79E-07**	1.00

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
45300	34.5	30.3	24.1	7.2	8.1	6.9	18.2	8.2	10.0	15.0	76.2	69.0	**1.90E-07**	0.97
38700	41.3	31.0	24.1	13.8	1.1	0.7	24.4	2.0	2.6	21.7	97.4	92.2	**1.24E-07**	0.70
48300	41.3	31.0	24.1	13.8	2	2.6	21.7	2.2	5.5	18.7	92.2	85.4	**1.37E-07**	0.97
50940	41.3	31.0	24.1	13.8	2.2	5.5	18.7	2.4	8.3	15.9	85.4	79.0	**1.33E-07**	1.00
24300	41.3	31.7	24.1	13.4	2.4	8.3	15.9	2.4	9.6	14.5	86.1	83.0	**1.30E-07**	0.93
61740	41.3	31.0	24.1	13.8	2.4	9.6	14.5	2.6	12.8	11.2	75.9	68.5	**1.45E-07**	0.97
251820	41.3	31.0	24.1	13.8	2.6	0.6	24.2	3.4	14.6	9.9	97.3	65.0	**1.39E-07**	0.98
7200	41.3	31.0	24.1	13.8	3.4	14.6	9.9	3.4	14.9	9.6	65.0	64.3	**1.28E-07**	1.00
11640	50.3	35.1	24.1	20.7	4	14.7	9.4	5.7	14.8	7.7	106.5	104.4	**1.45E-07**	0.06
25500	50.3	35.1	24.1	20.7	5.7	14.8	7.7	6.4	16.2	5.6	104.4	100.4	**1.33E-07**	0.67
30300	50.3	35.1	24.1	20.7	1.3	1.4	23.7	1.7	4.0	20.7	138.0	131.6	**1.36E-07**	0.87
17460	50.3	35.1	24.1	20.7	1.7	4	20.7	1.8	5.5	19.1	131.6	128.1	**1.36E-07**	0.94
23460	50.3	34.5	24.1	21.0	1.8	5.5	19.1	1.9	7.4	17.2	121.1	116.7	**1.35E-07**	1.00
59220	50.3	35.1	24.1	20.7	1.9	7.4	17.2	2.2	11.9	12.5	123.7	113.2	**1.30E-07**	0.96
67500	57.2	35.1	24.1	27.6	3.9	12.1	10.9	4.9	16.0	6.0	111.2	101.1	**1.22E-07**	0.80
28620	57.2	35.1	24.1	27.6	4.9	16	6	5.1	17.7	4.2	101.1	97.1	**1.22E-07**	0.94
59160	57.2	35.1	24.1	27.6	5.1	17.7	4.2	5.3	20.9	0.5	97.1	89.2	**1.24E-07**	0.86
17880	57.2	35.1	24.1	27.6	5.3	20.9	0.5	5.4	21.8	-0.6	89.2	86.9	**1.26E-07**	0.82
22020	57.2	35.1	24.1	27.6	5.4	0.5	24.7	5.5	2.2	22.8	140.2	136.1	**1.17E-07**	0.89
165540	57.2	35.1	24.1	27.6	5.5	2.2	22.8	6.0	14.0	10.7	136.1	108.8	**1.17E-07**	0.98
221700	57.2	35.1	24.1	27.6	6	14	10.7	6.7	26.0	-2.0	108.8	80.5	**1.18E-07**	0.94
108900	57.2	35.1	24.1	27.6	6.7	0.3	24	7.1	8.7	15.6	139.6	120.4	**1.18E-07**	1.00
71700	57.2	35.1	24.1	27.6	7.1	8.7	15.6	7.2	13.5	10.7	120.4	109.3	**1.17E-07**	0.98

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
14580	57.2	35.1	24.1	27.6	7.2	13.5	10.7	7.3	14.5	9.7	109.3	107.1	**1.26E-07**	1.00
65400	57.2	35.1	24.1	27.6	7.3	14.5	9.7	7.4	18.2	5.9	107.1	98.5	**1.11E-07**	0.97
27900	57.2	35.1	24.1	27.6	7.4	18.2	5.9	7.5	19.7	4.3	98.5	94.9	**1.14E-07**	0.94
55860	57.2	35.1	24.1	27.6	7.5	19.7	4.3	7.6	22.6	1.4	94.9	88.3	**1.12E-07**	1.00
33000	57.2	35.1	24.1	27.6	7.6	22.6	1.4	7.6	24.2	-0.2	88.3	84.7	**1.11E-07**	1.00
4140	64.1	35.1	24.1	34.5	7.7	4.1	24	8.3	4.2	23.4	135.3	134.5	**1.24E-07**	0.17
60180	64.1	35.1	24.1	34.5	8.3	4.2	23.4	8.7	8.2	19.0	134.5	124.9	**1.07E-07**	0.91
66540	64.1	35.1	24.1	34.5	8.7	8.2	19	8.9	12.4	14.8	124.9	115.3	**1.04E-07**	1.00
90000	64.1	35.1	24.1	34.5	8.9	12.4	14.8	9.2	17.4	9.6	115.3	103.6	**1.03E-07**	0.96
29100	64.1	35.1	24.1	34.5	9.2	17.4	9.6	9.3	18.9	8.0	103.6	100.1	**1.04E-07**	0.94
70740	64.1	35.1	24.1	34.5	9.3	18.9	8	9.3	22.4	4.4	100.1	92.0	**1.04E-07**	0.97
21360	64.1	35.1	24.1	34.5	0	0.7	23.9	9.6	2.3	22.1	139.1	135.2	**1.15E-07**	0.89
160140	64.1	35.1	24.1	34.5	9.6	2.3	22.1	9.9	13.2	11.2	135.2	110.3	**1.10E-07**	1.00
69120	64.1	35.1	24.1	34.5	9.9	13.2	11.2	10.0	17.3	7.1	110.3	100.9	**1.12E-07**	1.00
4920	64.1	35.1	24.1	34.5	10	17.3	7.1	10.0	17.6	6.9	100.9	100.3	**1.00E-07**	1.00

Sample Location:	0+70 (a)	**Final Sample Cross-Sectional Area (cm^2):**	**35.36**
Depth:	Surface	Final Sample Length (cm):	8.11
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	30.1	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.3		

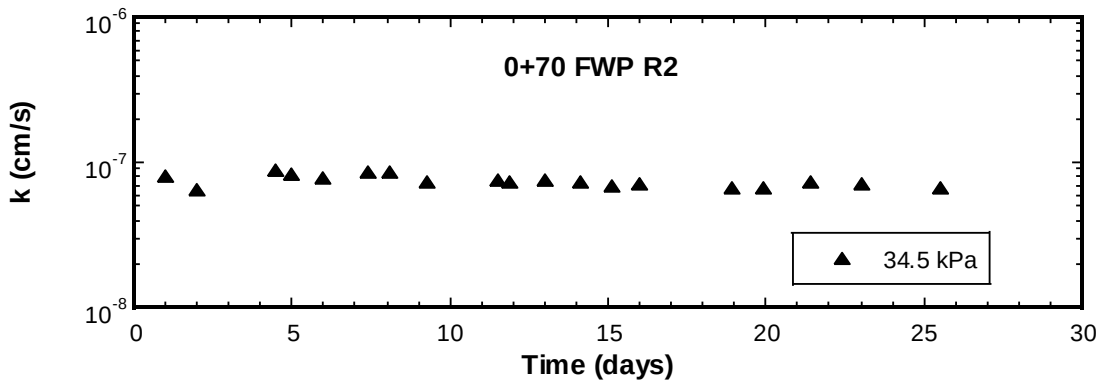


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
30300	34.5	31.0	24.1	6.9	0.6	5.5	24.4	15.9	1.9	15.0	91.9	85.3	**2.42E-07**	0.38
23700	34.5	31.0	24.1	6.9	5.6	1.2	21	8.2	1.5	18.3	93.0	89.5	**1.55E-07**	0.11
59100	34.5	31.0	24.1	6.9	8.2	1.5	18.3	10.0	4.7	14.2	89.5	81.2	**1.62E-07**	0.78
14100	34.5	31.0	24.1	6.9	10	4.7	14.2	10.1	5.6	13.2	81.2	79.0	**1.93E-07**	0.90
67140	34.5	31.0	24.1	6.9	10.1	5.6	13.2	10.6	9.6	9.2	79.0	69.9	**1.84E-07**	1.00
29400	34.5	31.0	24.1	6.9	10.6	9.6	9.2	10.9	11.2	7.5	69.9	66.1	**1.90E-07**	0.94
58680	41.3	31.0	24.1	13.8	10.9	11.2	7.5	16.3	11.5	3.1	66.1	60.7	**1.45E-07**	0.07
18300	41.3	31.0	24.1	13.8	0	0.4	24.3	0.5	1.1	23.3	97.7	95.7	**1.10E-07**	0.70
21840	41.3	31.0	24.1	13.8	0.5	1.1	23.3	0.9	2.1	22.2	95.7	93.3	**1.17E-07**	0.91

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
172800	41.3	31.0	24.1	13.8	0.9	2.1	22.2	2.5	9.0	14.9	93.3	77.1	**1.11E-07**	0.95
214320	41.3	31.0	24.1	13.8	2.5	9	14.9	3.9	16.5	7.2	77.1	59.7	**1.20E-07**	0.97
109320	41.3	31.0	24.1	13.8	3.9	16.5	7.2	4.5	19.6	4.2	59.7	52.7	**1.14E-07**	1.03
60900	50.3	35.1	24.1	20.7	3.2	2.9	23.3	4.6	5.9	19.1	135.9	127.6	**1.03E-07**	0.71
14340	50.3	35.1	24.1	20.7	4.6	5.9	19.1	4.7	6.7	18.2	127.6	125.7	**1.08E-07**	0.89
65460	50.3	35.1	24.1	20.7	4.7	6.7	18.2	5.0	10.1	14.7	125.7	117.8	**9.96E-08**	0.97
27900	51.0	35.1	24.1	21.4	5	10.1	14.7	5.3	11.5	13.3	117.8	114.6	**9.93E-08**	1.00
55860	51.0	35.1	24.1	21.4	5.3	11.5	13.3	5.3	14.1	10.5	114.6	108.4	**9.97E-08**	0.93
33000	51.0	35.1	24.1	21.4	5.3	14.1	10.5	5.4	15.6	8.9	108.4	104.9	**1.01E-07**	0.94
13320	51.0	35.1	24.1	21.4	5.4	15.6	8.9	5.5	16.2	8.3	104.9	103.5	**9.94E-08**	1.00
64200	51.0	35.1	24.1	21.4	5.5	16.2	8.3	5.5	19.0	5.5	103.5	97.1	**1.00E-07**	1.00
66900	51.0	35.1	24.1	21.4	5.5	19	5.5	5.6	21.7	2.8	97.1	90.9	**9.87E-08**	1.00
90060	51.0	35.1	24.1	21.4	5.7	0.3	23.7	5.8	5.5	18.3	139.3	127.2	**1.02E-07**	0.96
28980	51.0	35.1	24.1	21.4	5.8	5.5	18.3	5.9	7.1	16.8	127.2	123.6	**9.81E-08**	1.07
70380	51.0	35.1	24.1	21.4	5.9	7.1	16.8	5.9	10.7	13.1	123.6	115.3	**9.99E-08**	0.97
75540	51.0	35.1	24.1	21.4	5.9	10.7	13.1	6.2	14.3	9.5	115.3	107.1	**9.86E-08**	1.00
21180	51.0	35.1	24.1	21.4	6.2	14.3	9.5	6.2	15.3	8.5	107.1	104.8	**1.03E-07**	1.00
159900	51.0	35.1	24.1	21.4	6.2	0.4	23.8	6.5	8.7	15.5	139.3	120.3	**9.21E-08**	1.00
69240	51.0	35.1	24.1	21.4	6.5	8.7	15.5	6.7	12.1	12.2	120.3	112.7	**9.55E-08**	1.03
5040	51.0	35.1	24.1	21.4	6.7	12.1	12.2	6.7	12.3	12.0	112.7	112.2	**8.12E-08**	1.00
7260	64.1	35.1	24.1	34.5	10.9	11	9.6	11.2	11.2	9.2	110.9	110.3	**8.59E-08**	0.50
48660	64.1	35.1	24.1	34.5	11.2	11.2	9.2	11.8	12.8	7.2	110.3	106.1	**7.97E-08**	0.78
35940	64.1	35.1	24.1	34.5	11.8	12.8	7.15	12.0	14.1	5.8	106.1	103.1	**8.11E-08**	0.96

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
59820	64.1	35.1	24.1	34.5	12	14.1	5.8	12.0	16.1	3.8	103.1	98.5	**7.63E-08**	1.00
110820	64.1	35.1	24.1	34.5	12	16.1	3.8	12.2	19.6	0.2	98.5	90.4	**7.81E-08**	0.97
64620	64.1	35.1	24.1	34.5	12.2	0.1	24.8	12.4	3.1	21.6	140.8	133.7	**8.04E-08**	0.94
87720	64.1	35.1	24.1	34.5	12.4	3.1	21.6	12.6	7.0	17.7	133.7	124.8	**7.91E-08**	1.00
92340	64.1	35.1	24.1	34.5	12.6	7	17.7	12.8	10.8	13.8	124.8	116.0	**7.97E-08**	0.97
78660	64.1	35.1	24.1	34.5	12.8	10.8	13.8	13.0	13.8	10.6	116.0	108.9	**8.06E-08**	0.94
76020	64.1	35.1	24.1	34.5	13	13.8	10.6	13.1	16.6	7.8	108.9	102.5	**8.02E-08**	1.00
123000	64.1	35.1	24.1	34.5	13.1	16.6	7.8	13.2	20.8	3.6	102.5	92.9	**8.04E-08**	1.00
7140	64.1	35.1	24.1	34.5	0.8	1.3	24.7	0.8	1.7	24.3	139.3	138.4	**9.28E-08**	1.00

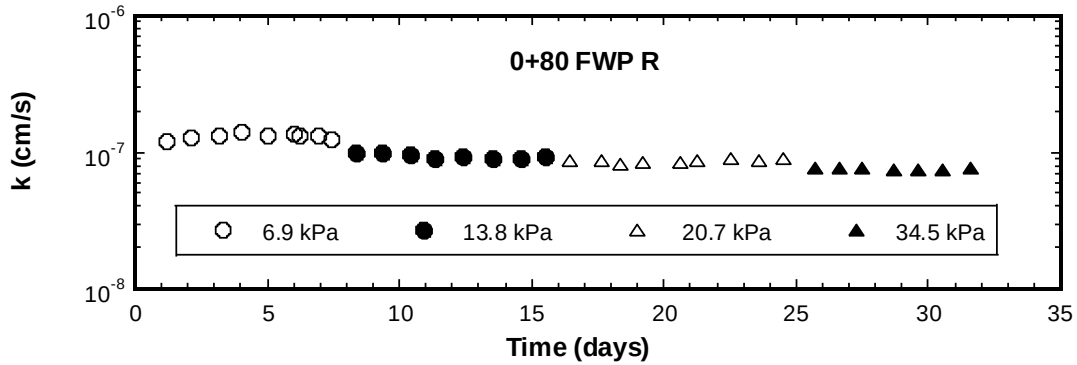
Sample Location:	0+70 (b)	**Final Sample Cross-Sectional Area (cm^2):**	**39.65**
Depth:	Surface	Final Sample Length (cm):	7.1
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	5.185
Initial MC (%):	32.0	Conversion Factor (burette to cm):	1.144
Final MC (%):	24.3		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
88680	310.1	283.9	267.3	34.5	11.0	1.2	23.8	11.0	2.5	22.5	194.6	191.6	8.08E-08	0.99
173400	310.1	283.9	267.3	34.5	11.0	2.5	22.5	11.0	3.5	21.5	191.6	189.3	6.59E-08	0.99
385020	310.1	283.9	267.3	34.5	11.0	3.5	21.5	11.5	6.6	18.0	189.3	181.7	8.94E-08	0.88
431520	310.1	283.9	267.3	34.5	11.5	6.6	18.0	11.5	7.2	17.3	181.7	180.3	8.22E-08	0.85
517860	310.1	283.9	267.3	34.5	11.5	7.2	17.3	11.6	8.4	16.2	180.3	177.6	7.92E-08	1.08
640080	306.6	283.9	266.6	31.3	11.6	8.4	16.2	11.7	10.2	14.4	184.7	180.5	8.58E-08	0.99
698280	306.6	283.2	266.6	31.7	11.7	10.2	14.4	11.9	10.9	13.5	173.5	171.7	8.47E-08	0.77
804480	310.1	282.5	268.0	34.8	11.9	10.9	13.5	12.1	12.2	12.6	150.6	148.1	7.38E-08	1.43
993780	310.1	283.9	263.9	36.2	12.1	12.2	12.6	12.3	14.7	9.7	204.3	198.1	7.54E-08	0.85

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
1031280	310.1	282.5	263.2	37.2	12.3	14.7	9.7	12.3	15.2	9.2	191.1	189.9	7.45E-08	0.99
1119480	310.1	283.9	267.3	34.5	12.3	15.2	9.2	12.4	16.2	8.2	161.8	159.5	7.51E-08	0.99
1221180	310.1	283.2	266.6	35.1	12.4	16.2	8.2	12.4	17.3	7.1	159.5	157.0	7.27E-08	0.99
1301280	308.7	283.2	268.0	33.1	12.4	17.3	7.1	12.5	18.0	6.3	142.9	141.2	7.01E-08	0.87
1381080	310.1	283.9	267.3	34.5	12.5	18.0	6.3	12.6	18.9	5.6	155.3	153.4	7.13E-08	1.19
1636680	310.1	283.9	267.3	34.5	12.6	18.9	5.6	12.8	21.4	3.2	153.4	147.8	6.70E-08	1.05
1721280	310.1	286.6	266.6	33.4	12.8	1.0	24.0	12.8	2.2	22.8	230.2	227.4	6.60E-08	0.99
1850880	309.4	282.5	268.0	34.1	12.8	2.2	22.8	13.0	3.7	21.3	171.2	167.8	7.27E-08	0.99
1988880	309.4	283.2	268.0	33.8	13.0	3.7	21.3	13.0	5.3	19.7	174.8	171.1	7.13E-08	0.99
2203080	310.1	283.2	268.0	34.5	13.0	5.3	19.7	13.1	7.6	17.4	171.1	165.9	6.78E-08	0.99

Sample Location:	0+80	**Final Sample Cross-Sectional Area (cm^2):**	**36.53**
Depth:	Surface	Final Sample Length (cm):	8.00
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	24.9	Conversion Factor (burette to cm):	1.143
Final MC (%):	20.3		

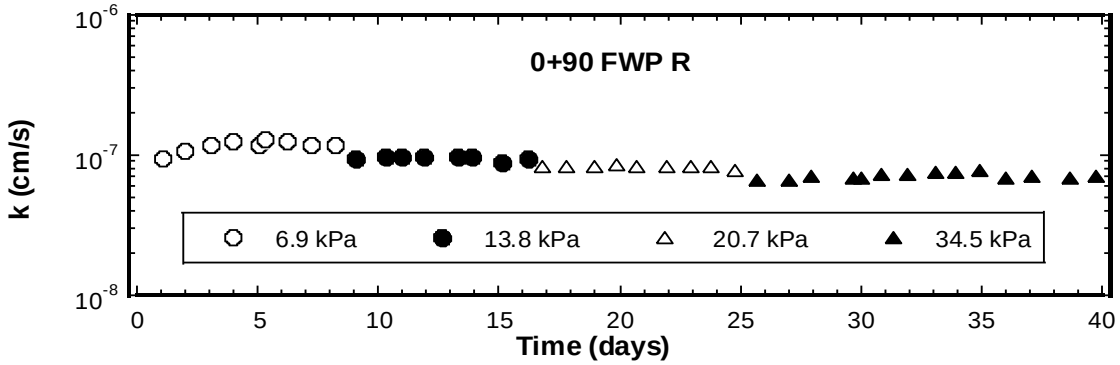


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
101100	34.5	30.3	27.6	5.5	0.4	0.9	24.5	4.5	2.4	20.5	55.1	48.8	**1.18E-07**	0.38
82980	34.5	30.3	27.6	5.5	4.5	2.4	20.5	5.5	4.7	18.4	48.8	43.8	**1.29E-07**	1.10
92160	34.5	30.3	27.6	5.5	5.5	4.7	18.4	6.4	6.9	16.2	43.8	38.8	**1.31E-07**	1.00
72000	34.5	30.3	27.6	5.5	6.4	6.9	16.2	7.0	8.6	14.6	38.8	35.0	**1.40E-07**	1.06
87780	34.5	30.3	27.6	5.5	7	8.6	14.6	7.5	10.4	13.0	35.0	31.1	**1.32E-07**	1.13
85560	34.5	30.3	27.6	5.5	7.5	10.4	13	7.9	11.9	11.5	31.1	27.7	**1.35E-07**	1.00
18900	34.5	30.3	27.6	5.5	7.9	11.9	11.5	8.0	12.2	11.2	27.7	27.0	**1.31E-07**	1.00
59700	34.5	31.0	24.1	6.9	2.5	1.1	24.8	4.2	3.7	20.9	97.4	90.0	**1.31E-07**	0.67
45420	34.5	31.0	24.1	6.9	4.2	3.7	20.9	4.5	5.8	18.7	90.0	85.1	**1.22E-07**	0.95

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
75360	41.3	31.0	24.1	13.8	0.6	0.3	24.6	1.8	3.0	21.0	98.1	90.9	**9.98E-08**	0.75
85440	41.3	31.0	24.1	13.8	1.8	3	21	2.3	6.2	17.7	90.9	83.5	**9.84E-08**	0.97
91500	41.3	31.0	24.1	13.8	2.3	6.2	17.7	2.7	9.3	14.6	83.5	76.4	**9.56E-08**	1.00
79980	41.3	31.0	24.1	13.8	2.7	9.3	14.6	4.0	11.3	11.9	76.4	71.0	**8.99E-08**	0.74
93300	41.3	31.0	24.1	13.8	4	11.3	11.9	4.3	13.9	9.3	71.0	65.1	**9.24E-08**	1.00
98760	41.3	31.0	24.1	13.8	4.3	13.9	9.3	4.6	16.3	6.8	65.1	59.5	**8.99E-08**	0.96
88860	41.3	31.0	24.1	13.8	4.6	16.3	6.8	4.8	18.4	4.8	59.5	54.8	**9.11E-08**	1.05
83940	41.3	31.0	24.1	13.8	4.8	18.4	4.8	5.0	20.2	3.0	54.8	50.7	**9.17E-08**	1.00
3960	50.3	35.1	24.1	20.7	5.5	2.2	24.4	5.7	2.4	24.2	137.9	137.5	**8.05E-08**	1.00
74940	50.3	35.1	24.1	20.7	5.7	2.4	24.2	6.9	5.8	19.8	137.5	128.5	**8.59E-08**	0.77
104160	50.3	35.1	24.1	20.7	6.9	5.8	19.8	7.3	10.7	14.7	128.5	117.1	**8.58E-08**	0.96
58500	50.3	35.1	24.1	20.7	7.3	10.7	14.7	7.5	13.3	12.3	117.1	111.4	**8.21E-08**	1.08
76500	50.3	35.1	24.1	20.7	7.5	13.3	12.3	7.6	16.5	9.1	111.4	104.1	**8.53E-08**	1.00
121680	50.3	35.1	24.1	20.7	7.6	16.5	9.1	7.8	21.2	4.5	104.1	93.5	**8.50E-08**	1.00
54720	50.3	35.1	24.1	20.7	7.8	21.15	4.45	8.0	23.1	2.5	93.5	89.0	**8.58E-08**	1.00
107160	50.3	35.1	24.1	20.7	8	0.52	24.5	8.1	6.3	18.6	140.0	126.6	**8.98E-08**	0.98
93780	50.3	35.1	24.1	20.7	8.1	6.3	18.6	8.3	10.8	14.2	126.6	116.4	**8.58E-08**	1.02
77700	64.1	35.1	24.1	34.5	13.1	11	10.2	13.4	14.3	6.7	111.6	103.9	**8.92E-08**	0.94
104760	64.1	35.1	24.1	34.5	13.4	14.3	6.7	13.5	17.8	3.0	103.9	95.6	**7.57E-08**	0.95
79800	64.1	35.1	24.1	34.5	13.5	0.2	24.4	13.7	3.9	20.6	140.2	131.6	**7.59E-08**	0.97
72000	64.1	35.1	24.1	34.5	13.7	3.9	20.6	13.9	7.1	17.4	131.6	124.3	**7.63E-08**	1.00
104880	64.1	35.1	24.1	34.5	13.9	7.1	17.4	14.0	11.3	13.1	124.3	114.6	**7.45E-08**	0.98
84480	64.1	35.1	24.1	34.5	14	11.3	13.1	14.1	14.5	9.9	114.6	107.3	**7.50E-08**	1.00

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
75660	64.1	35.1	24.1	34.5	14.1	14.5	9.9	14.3	17.2	7.3	107.3	101.2	**7.38E-08**	1.04
89880	64.1	35.1	24.1	34.5	14.3	17.2	7.3	14.4	20.3	4.2	101.2	94.1	**7.75E-08**	1.00

Sample Location:	0+90 (a)	**Final Sample Cross-Sectional Area (cm^2):**	**36.07**
Depth:	Surface	Final Sample Length (cm):	7.86
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	31.6	Conversion Factor (burette to cm):	1.143
Final MC (%):	23.2		

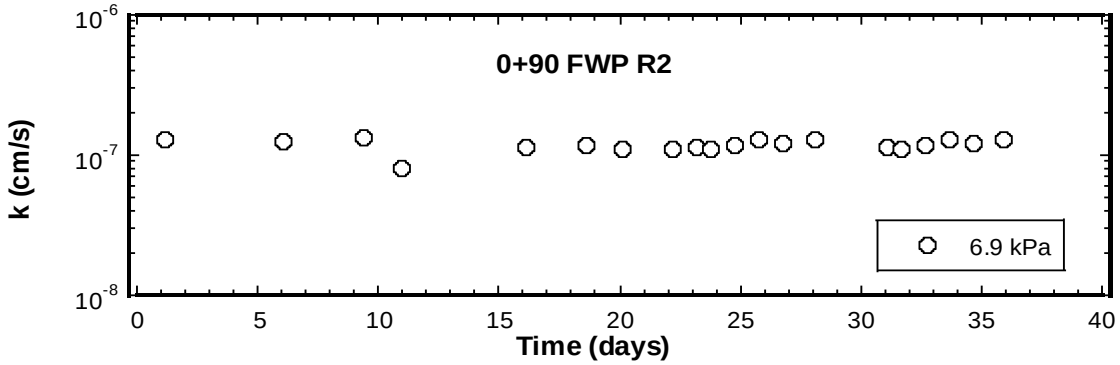


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	σ'_{avg} (kPa)	Cell	Head	Tail	Cell	Head	Tail				
14100	34.5	31.0	24.1	6.9	6.6	1.1	22.3	12.0	3.7	20.0	94.6	89.0	**4.14E-07**	1.13
76320	34.5	31.0	24.1	6.9	0.6	0.5	24.7	6.1	1.1	19.0	98.0	90.8	**9.56E-08**	0.11
85080	34.5	31.0	24.1	6.9	6.1	1.1	19.0	7.6	4.3	15.0	90.8	82.6	**1.07E-07**	0.80
92280	34.5	31.0	24.1	6.9	7.6	4.3	15	9.0	8.1	11.1	82.6	73.8	**1.17E-07**	0.97
79260	34.5	31.0	24.1	6.9	9.0	8.1	11.1	10.3	11.3	8.0	73.8	66.6	**1.24E-07**	1.03
93180	34.5	31.0	24.1	6.9	10.3	11.3	8	12.0	14.5	4.8	66.6	59.3	**1.19E-07**	1.00
21840	34.5	31.0	24.1	6.9	12.0	14.5	4.8	12.4	15.2	4.0	59.3	57.5	**1.29E-07**	0.87
77340	34.5	31.0	24.1	6.9	12.4	0.4	24.7	13.7	4.5	20.6	98.1	88.7	**1.24E-07**	1.00
88800	34.5	31.0	24.1	6.9	13.7	4.5	20.6	15.0	8.4	16.6	88.7	79.7	**1.16E-07**	0.98

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	σ'_{avg} (kPa)	Cell	Head	Tail	Cell	Head	Tail				
83340	34.5	31.0	24.1	6.9	15	8.4	16.6	16.2	11.8	13.3	79.7	72.1	**1.16E-07**	1.03
74940	41.3	31.0	24.1	13.8	3.8	0.6	23.5	9.1	1.7	18.6	96.5	89.7	**9.40E-08**	0.22
104160	41.3	31.0	24.1	13.8	9.1	1.7	18.6	11.0	5.5	14.6	89.7	80.7	**9.61E-08**	0.95
58980	41.3	31.0	24.1	13.8	11.0	5.5	14.6	12.0	7.5	12.5	80.7	76.1	**9.69E-08**	0.95
76020	41.3	31.0	24.1	13.8	12.0	7.5	12.5	12.8	10.0	10.0	76.1	70.3	**9.83E-08**	1.00
121800	41.3	31.0	24.1	13.8	12.8	10	10	13.9	13.5	6.4	70.3	62.2	**9.62E-08**	0.97
55020	41.3	31.0	24.1	13.8	13.9	13.5	6.4	14.5	15.0	4.9	62.2	58.8	**9.85E-08**	1.00
106440	41.3	31.0	24.1	13.8	14.5	15	4.9	15.3	17.1	2.2	58.8	53.3	**8.80E-08**	0.78
91920	41.3	31.0	24.1	13.8	7.7	0.4	24.4	8.7	3.9	20.4	97.8	89.2	**9.55E-08**	0.88
47100	50.3	35.1	24.1	20.7	11.2	4.0	19.3	13.6	5.5	16.2	130.0	124.8	**8.38E-08**	0.48
86640	50.3	35.1	24.1	20.7	13.6	5.5	16.2	14.5	9.3	12.1	124.8	115.7	**8.29E-08**	0.93
104940	50.3	35.1	24.1	20.7	14.5	9.3	12.1	15.1	13.6	7.5	115.7	105.6	**8.38E-08**	0.93
79320	50.3	35.1	24.1	20.7	15.1	13.6	7.5	15.6	16.7	4.3	105.6	98.4	**8.52E-08**	0.97
72540	50.3	35.1	24.1	20.7	15.6	16.7	4.3	16.2	19.3	1.7	98.4	92.4	**8.21E-08**	1.00
105060	50.3	35.1	24.1	20.7	16.2	0.2	24.6	16.6	5.3	19.1	140.4	128.3	**8.21E-08**	0.93
84300	50.3	35.1	24.1	20.7	16.6	5.3	19.1	17.0	9.3	15.1	128.3	119.2	**8.39E-08**	1.00
75060	50.3	35.1	24.1	20.7	17.0	9.3	15.1	17.5	12.6	11.9	119.2	111.7	**8.20E-08**	1.03
88800	64.1	35.1	24.1	34.5	20.0	12.3	11.5	25.4	13.3	5.6	111.6	103.7	**7.89E-08**	0.17
74520	64.1	35.1	24.1	34.5	0.5	0.4	24.7	2.4	3.3	21.3	140.3	133.1	**6.76E-08**	0.85
116400	64.1	35.1	24.1	34.5	2.4	3.3	21.3	3.9	7.7	16.6	133.1	122.7	**6.68E-08**	0.94
77700	64.1	37.2	24.1	33.4	3.9	7.7	16.6	4.0	11.2	13.1	143.8	135.8	**7.04E-08**	1.00
150000	64.1	37.2	24.1	33.4	4.0	11.2	13.1	5.3	17.2	6.9	135.8	121.9	**6.91E-08**	0.97
30060	64.1	37.2	24.1	33.4	5.3	17.2	6.9	5.3	18.3	5.7	121.9	119.2	**6.94E-08**	0.92

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	σ'_{avg} (kPa)	Cell	Head	Tail	Cell	Head	Tail				
70020	64.1	37.2	24.1	33.4	5.3	18.3	5.7	5.8	21.0	3.0	119.2	113.1	**7.26E-08**	1.00
95820	64.1	37.2	24.1	33.4	5.8	21.0	3.0	6.2	24.4	-0.5	113.1	105.2	**7.21E-08**	0.97
100020	64.1	33.1	24.1	35.5	6.2	0.4	24.8	6.7	4.1	20.5	119.3	110.2	**7.62E-08**	0.86
74880	64.1	33.1	24.1	35.5	6.7	4.1	20.5	7.1	6.8	17.7	110.2	103.9	**7.50E-08**	0.96
84720	64.1	33.1	24.1	35.5	7.1	6.8	17.7	7.3	9.6	14.5	103.9	97.0	**7.71E-08**	0.88
90840	64.1	33.1	24.1	35.5	7.3	9.6	14.5	7.6	12.2	11.7	97.0	90.9	**6.92E-08**	0.93
98880	64.1	33.1	24.1	35.5	7.6	12.2	11.7	8.1	14.9	8.8	90.9	84.5	**7.06E-08**	0.93
134640	64.1	33.1	24.1	35.5	8.1	14.9	8.8	8.7	18.2	5.3	84.5	76.7	**6.85E-08**	0.94
88080	64.1	31.0	24.1	36.5	8.7	18.2	5.3	9.1	19.6	3.6	55.6	52.1	**7.15E-08**	0.82

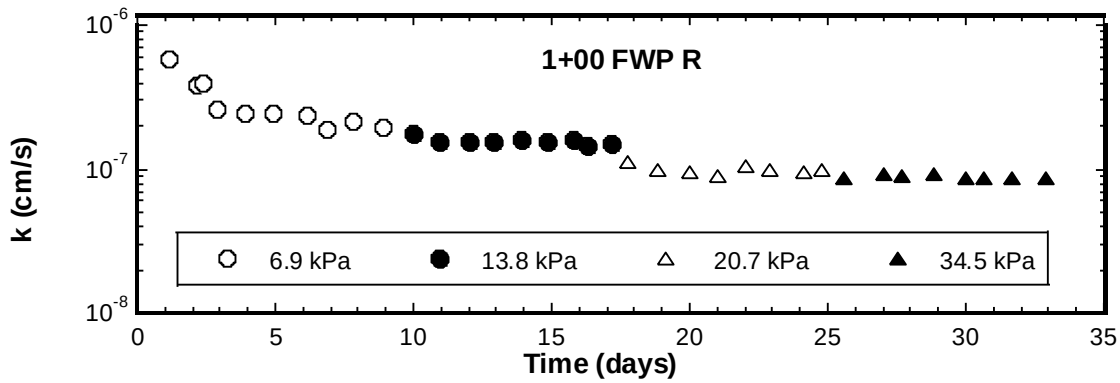
Sample Location:	0+90 (b)	**Final Sample Cross-Sectional Area (cm^2):**	**31.57**
Depth:	Surface	Final Sample Length (cm):	7.01
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	4.561
Initial MC (%):	34.6	Conversion Factor (burette to cm):	1.143
Final MC (%):	27.1		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
101880	48.2	45.5	39.3	5.9	9.1	10.7	21.6	10.5	11.8	20.5	75.8	73.3	1.30E-07	0.95
423000	48.2	45.5	37.2	6.9	10.5	11.8	20.5	11.2	17.1	15.6	94.4	82.7	1.26E-07	1.08
286500	48.2	45.5	37.2	6.9	11.2	17.1	15.6	11.4	20.7	12.7	82.7	75.3	1.32E-07	1.24
139200	48.2	45.5	37.2	6.9	11.4	20.7	12.7	11.6	21.7	11.9	75.3	73.2	8.02E-08	1.25
439500	47.5	45.5	37.2	6.2	11.6	7.4	18.5	11.9	12.7	13.7	97.1	85.6	1.15E-07	1.09
220800	47.5	45.5	37.2	6.2	11.9	12.7	13.7	12.1	15.0	11.4	85.6	80.3	1.17E-07	1.02
125040	48.2	46.2	37.2	6.5	12.1	15.0	11.4	12.1	16.4	10.2	87.3	84.4	1.12E-07	1.17
181560	48.2	46.2	37.2	6.5	12.1	16.4	10.2	12.2	18.3	8.5	84.4	80.2	1.11E-07	1.12
86700	48.2	46.2	37.2	6.5	12.2	18.3	8.5	12.3	19.2	7.7	80.2	78.3	1.14E-07	1.13

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
54300	48.2	46.2	37.2	6.5	12.3	19.2	7.7	12.3	19.7	7.2	78.3	77.2	1.09E-07	1.00
87600	48.2	45.5	37.2	6.9	12.3	19.7	7.2	12.4	20.6	6.5	70.1	68.3	1.18E-07	1.21
84900	48.2	45.5	37.2	6.9	12.35	20.6	6.5	12.4	21.4	5.7	68.3	66.5	1.29E-07	1.00
87000	48.2	45.5	37.2	6.9	12.4	21.4	5.7	12.4	22.2	5.0	66.5	64.8	1.21E-07	1.14
106500	48.2	45.5	37.2	6.9	12.4	22.2	5.0	13.2	23.1	4.1	64.8	62.6	1.29E-07	1.00

Sample Location:	1+00	**Final Sample Cross-Sectional Area (cm^2):**	**34.00**
Depth:	Surface	Final Sample Length (cm):	7.64
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	32.8	Conversion Factor (burette to cm):	1.143
Final MC (%):	23.2		

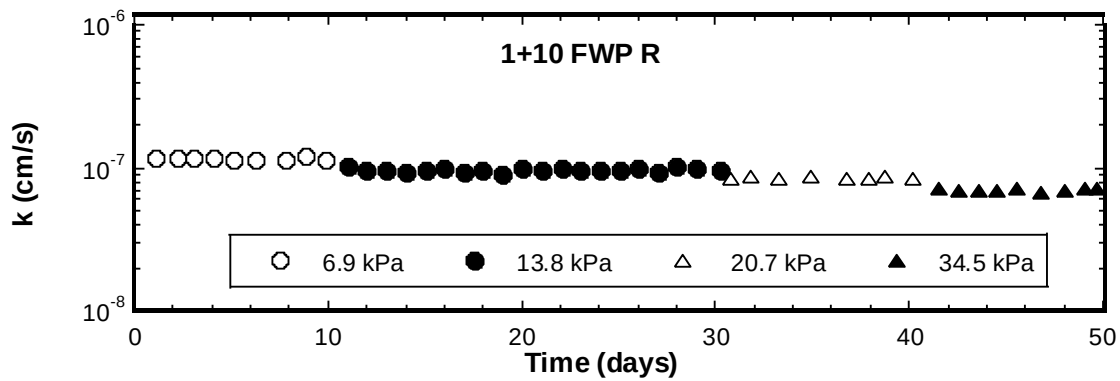


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
68220	33.1	31.0	24.1	5.5	0.7	3.4	22.1	24.0	19.2	2.0	91.7	50.7	**7.93E-07**	0.79
18600	33.1	31.0	24.1	5.5	2.3	1.9	23.9	8.2	2.8	23.1	95.5	93.5	**1.01E-07**	1.13
15180	33.1	31.0	24.1	5.5	8.2	2.8	23.1	8.3	8.6	21.3	93.5	84.9	**5.85E-07**	3.22
89220	33.1	31.0	24.1	5.5	8.3	8.6	21.3	14.1	17.9	7.5	84.9	58.5	**3.81E-07**	0.67
18300	34.5	31.0	24.1	6.9	1.2	1.3	24.4	1.2	4.5	21.2	96.7	89.4	**3.92E-07**	1.00
42300	34.5	31.0	24.1	6.9	1.2	4.5	21.2	3.1	8.2	15.9	89.4	79.1	**2.63E-07**	0.70
84540	34.5	31.0	24.1	6.9	3.1	8.2	15.9	5.1	14.5	8.3	79.1	63.3	**2.42E-07**	0.83
88260	34.5	31.0	24.1	6.9	5.1	14.5	8.3	6.4	19.8	2.0	63.3	50.0	**2.43E-07**	0.84
109260	34.5	31.0	24.1	6.9	3.6	4.6	25.8	9.6	7.3	15.5	94.6	79.7	**2.33E-07**	0.26

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
63300	34.5	31.0	24.1	6.9	9.6	7.3	15.5	10.0	9.9	12.8	79.7	73.7	**1.86E-07**	0.96
82140	34.5	31.0	24.1	6.9	10	9.9	12.8	10.5	13.4	9.2	73.7	65.5	**2.11E-07**	0.97
91860	34.5	31.0	24.1	6.9	10.5	13.4	9.2	10.9	16.6	5.9	65.5	58.1	**1.95E-07**	0.97
93300	41.3	31.0	24.1	13.8	0.4	0.9	24.3	4.7	3.5	18.1	97.1	87.0	**1.74E-07**	0.42
83160	41.3	31.0	24.1	13.8	4.7	3.5	18.1	5.1	6.6	14.8	87.0	79.7	**1.57E-07**	0.94
91980	41.3	31.0	24.1	13.8	5.1	6.6	14.8	5.5	9.7	11.5	79.7	72.4	**1.56E-07**	0.94
72000	41.3	31.0	24.1	13.8	5.5	9.7	11.5	5.8	12.0	9.2	72.4	67.1	**1.56E-07**	1.00
87900	41.3	31.0	24.1	13.8	5.8	12	9.2	6.0	14.6	6.5	67.1	61.1	**1.60E-07**	0.96
85440	41.3	31.0	24.1	13.8	6	14.6	6.5	6.2	16.8	4.2	61.1	55.9	**1.53E-07**	0.96
18960	41.3	31.0	24.1	13.8	6.2	16.8	4.2	6.3	17.4	3.7	55.9	54.7	**1.78E-07**	1.20
60180	41.3	31.0	24.1	13.8	2.8	1	24.3	3.4	3.5	21.5	97.0	90.9	**1.59E-07**	0.89
45540	41.3	31.0	24.1	13.8	3.4	3.5	21.5	3.7	5.2	19.7	90.9	86.9	**1.47E-07**	0.94
74580	50.3	35.1	24.1	20.7	0.4	0.5	24.5	1.9	4.3	19.4	140.0	129.8	**1.50E-07**	0.75
52200	50.3	35.1	24.1	20.7	0.7	2.1	24.1	2.9	3.5	20.8	137.7	132.3	**1.13E-07**	0.42
93240	50.3	35.1	24.1	20.7	2.9	3.5	20.8	3.3	7.0	17.4	132.3	124.4	**9.80E-08**	1.03
98640	50.3	35.1	24.1	20.7	3.3	7	17.4	3.6	10.4	14.1	124.4	116.8	**9.58E-08**	1.03
88860	50.3	35.1	24.1	20.7	3.6	10.4	14.1	3.6	13.3	11.6	116.8	110.6	**9.09E-08**	1.16
84840	50.3	35.1	24.1	20.7	3.6	13.3	11.6	3.9	16.0	8.7	110.6	104.2	**1.05E-07**	0.93
78900	50.3	35.1	24.1	20.7	3.9	16	8.7	3.9	18.3	6.4	104.2	98.9	**9.76E-08**	1.00
104400	50.3	35.1	24.1	20.7	3.9	18.3	6.4	4.1	21.2	3.7	98.9	92.5	**9.62E-08**	1.05
58140	50.3	35.1	24.1	20.7	4.1	21.2	3.65	4.2	22.8	2.2	92.5	89.0	**9.83E-08**	1.10
69540	64.1	35.1	24.1	34.5	5.5	0.4	24.5	6.4	2.3	21.5	140.1	134.5	**8.73E-08**	0.63
121620	64.1	35.1	24.1	34.5	6.4	2.3	21.5	6.6	6.9	17.4	134.5	124.5	**9.39E-08**	1.12

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
54660	64.1	35.1	24.1	34.5	6.6	6.9	17.4	6.7	8.6	15.6	124.5	120.5	**8.88E-08**	0.94
105480	64.1	35.1	24.1	34.5	6.7	8.6	15.6	6.9	11.9	12.3	120.5	113.0	**9.11E-08**	1.00
95520	64.1	35.1	24.1	34.5	6.9	11.9	12.3	7.0	14.6	9.7	113.0	106.9	**8.58E-08**	1.04
60900	64.1	35.1	24.1	34.5	7	14.6	9.7	7.1	16.3	8.1	106.9	103.2	**8.77E-08**	1.06
84960	64.1	35.1	24.1	34.5	7.1	16.3	8.1	7.2	18.5	5.9	103.2	98.1	**8.75E-08**	1.00
104820	64.1	35.1	24.1	34.5	7.2	18.5	5.9	7.3	21.0	3.3	98.1	92.3	**8.69E-08**	0.96

Sample Location:	1+10 (a)	**Final Sample Cross-Sectional Area (cm^2):**	**35.66**
Depth:	Surface	Final Sample Length (cm):	6.74
Sample Type:	Remolded flexible wall	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	28.0	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.3		

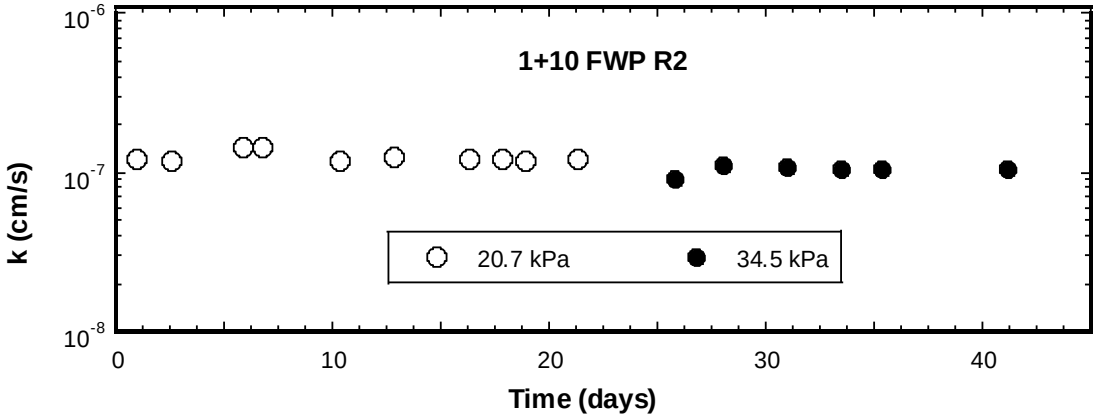


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
96060	34.5	31.0	24.1	6.9	4.9	0.3	24.8	6.0	4.5	20.5	98.3	88.6	**1.16E-07**	0.98
99540	34.5	31.0	24.1	6.9	6	4.5	20.5	7.0	8.5	16.5	88.6	79.5	**1.17E-07**	1.00
75480	34.5	31.0	24.1	6.9	7	8.5	16.5	7.6	11.3	13.8	79.5	73.2	**1.17E-07**	1.04
83940	34.5	31.0	24.1	6.9	7.6	11.3	13.8	8.1	14.0	11.0	73.2	66.9	**1.15E-07**	0.96
90720	34.5	31.0	24.1	6.9	8.1	14	11	8.7	16.7	8.3	66.9	60.7	**1.14E-07**	1.00
99060	34.5	31.0	24.1	6.9	8.7	16.7	8.3	9.2	19.4	5.7	60.7	54.6	**1.14E-07**	1.04
134640	34.5	31.0	24.1	6.9	9.2	19.4	5.7	10.0	22.7	2.6	54.6	47.3	**1.14E-07**	1.06
88320	34.5	31.0	24.1	6.9	10	0.45	24.5	10.3	4.4	20.5	97.8	88.7	**1.18E-07**	0.99
85140	34.5	31.0	24.1	6.9	10.3	4.4	20.5	10.7	7.8	17.2	88.7	81.1	**1.14E-07**	1.03

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
99480	41.3	31.0	24.1	13.8	11.8	0.2	24.9	14.0	3.1	20.0	98.5	89.6	**1.02E-07**	0.59
87180	41.3	31.0	24.1	13.8	14	3.1	20	14.3	5.9	16.9	89.6	82.9	**9.61E-08**	0.90
88200	41.3	31.0	24.1	13.8	14.3	5.9	16.9	14.6	8.6	14.1	82.9	76.6	**9.58E-08**	0.96
86280	41.3	31.0	24.1	13.8	14.6	8.6	14.1	14.9	11.0	11.7	76.6	71.1	**9.23E-08**	1.00
85380	41.3	31.0	24.1	13.8	14.9	11	11.7	15.0	13.2	9.4	71.1	66.0	**9.42E-08**	0.96
87000	41.3	31.0	24.1	13.8	15	13.2	9.4	15.2	15.4	7.2	66.0	60.9	**9.76E-08**	1.00
87240	41.3	31.0	24.1	13.8	15.2	15.4	7.2	15.4	17.3	5.2	60.9	56.5	**9.33E-08**	0.95
78780	41.3	31.0	24.1	13.8	15.4	17.3	5.2	15.7	19.0	3.5	56.5	52.6	**9.69E-08**	1.00
92160	41.3	31.0	24.1	13.8	15.7	19	3.5	15.9	20.7	1.8	52.6	48.7	**8.92E-08**	1.00
87120	41.3	31.0	24.1	13.8	1.4	0.4	24.3	1.7	3.5	20.8	97.6	90.1	**9.89E-08**	0.89
86520	41.3	31.0	24.1	13.8	1.7	3.5	20.8	1.9	6.4	17.8	90.1	83.3	**9.63E-08**	0.97
87720	41.3	31.0	24.1	13.8	1.9	6.4	17.8	2.0	9.2	15.0	83.3	76.9	**9.76E-08**	1.00
83880	41.3	31.0	24.1	13.8	2	9.2	15	2.2	11.6	12.5	76.9	71.3	**9.65E-08**	0.96
86940	41.3	31.0	24.1	13.8	2.2	11.6	12.5	2.4	13.9	10.1	71.3	66.0	**9.64E-08**	0.96
89520	41.3	31.0	24.1	13.8	2.4	13.9	10.1	2.6	16.1	7.9	66.0	60.9	**9.49E-08**	1.00
84180	41.3	31.0	24.1	13.8	2.6	16.1	7.9	2.8	18.1	5.9	60.9	56.4	**9.92E-08**	1.00
87120	41.3	31.0	24.1	13.8	2.8	18.1	5.9	3.0	19.9	4.1	56.4	52.2	**9.32E-08**	1.00
85440	41.3	31.0	24.1	13.8	3	0.4	24.5	3.1	3.6	21.0	97.9	90.2	**1.02E-07**	0.91
86280	41.3	31.0	24.1	13.8	3.1	3.6	21	3.2	6.6	18.0	90.2	83.3	**9.82E-08**	1.00
110160	41.3	31.0	24.1	13.8	3.2	6.6	18	3.4	10.0	14.6	83.3	75.6	**9.52E-08**	1.00
40200	50.3	35.1	24.1	20.7	5	10	13.5	6.3	11.0	11.3	116.5	112.8	**8.50E-08**	0.45
88080	50.3	35.1	24.1	20.7	6.3	11	11.3	6.7	14.2	7.8	112.8	105.2	**8.55E-08**	0.91
122040	50.3	35.1	24.1	20.7	6.7	14.2	7.8	7.0	18.3	3.5	105.2	95.6	**8.40E-08**	0.95

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
143760	50.3	35.1	24.1	20.7	7	0.7	24.5	7.3	7.4	17.7	139.7	124.3	**8.72E-08**	0.99
159840	50.3	35.1	24.1	20.7	7.3	7.4	17.7	7.5	13.9	11.2	124.3	109.4	**8.53E-08**	1.00
102120	50.3	35.1	24.1	20.7	7.5	13.9	11.2	7.7	17.6	7.5	109.4	100.9	**8.44E-08**	1.00
70380	50.3	35.1	24.1	20.7	7.7	17.6	7.5	8.0	20.1	5.1	100.9	95.3	**8.69E-08**	1.04
123540	50.3	35.1	24.1	20.7	8	20.1	5.1	8.0	24.0	1.2	95.3	86.4	**8.51E-08**	1.00
117900	64.1	35.1	24.1	34.5	11.3	0.8	24.9	13.2	4.6	19.5	140.0	129.5	**7.09E-08**	0.70
91860	64.1	35.1	24.1	34.5	13.2	4.6	19.5	13.5	7.9	16.2	129.5	122.0	**7.00E-08**	1.00
84660	64.1	35.1	24.1	34.5	13.5	7.9	16.2	13.6	10.7	13.3	122.0	115.5	**6.94E-08**	0.97
84540	64.1	35.1	24.1	34.5	13.6	10.7	13.3	13.8	13.4	10.6	115.5	109.3	**6.96E-08**	1.00
88140	64.1	35.1	24.1	34.5	13.8	13.4	10.6	14.0	16.1	7.9	109.3	103.1	**7.06E-08**	1.00
104760	64.1	35.1	24.1	34.5	14	16.1	7.9	14.1	19.0	5.0	103.1	96.5	**6.79E-08**	1.00
112260	64.1	35.1	24.1	34.5	14.1	19	5	14.3	22.0	2.0	96.5	89.6	**7.03E-08**	1.00
84300	64.1	35.1	24.1	34.5	14.4	0.4	24.7	14.4	3.7	21.2	140.3	132.5	**7.24E-08**	0.94
59640	64.1	35.1	24.1	34.5	14.4	3.7	21.2	14.5	6.0	19.0	132.5	127.4	**7.11E-08**	1.05

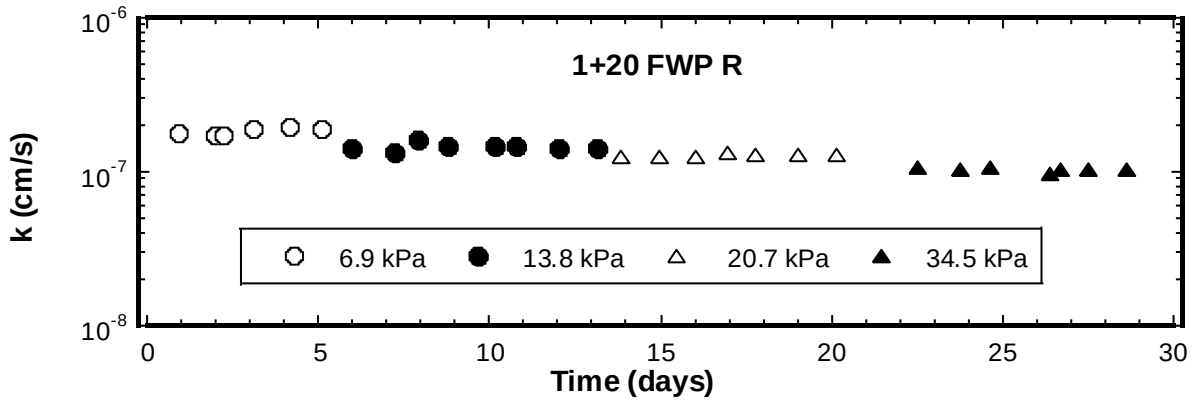
Sample Location:	1+10 (b)	**Final Sample Cross-Sectional Area (cm^2):**	**39.65**
Depth:	Surface	Final Sample Length (cm):	7.10
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	4.860
Initial MC (%):	24.3	Conversion Factor (burette to cm):	1.143
Final MC (%):	22.2		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
82800	296.3	281.1	266.6	22.4	1.2	0.2	24.0	1.3	1.8	22.3	174.9	171.1	**1.15E-07**	0.94
142200	296.3	281.8	266.6	22.0	1.3	1.8	22.3	1.4	4.5	19.5	178.1	171.8	**1.10E-07**	0.96
281700	295.6	279.0	268.0	22.0	1.4	4.5	19.5	1.5	9.1	14.7	129.6	118.9	**1.34E-07**	0.96
80700	294.9	284.6	269.4	17.9	1.6	14.2	9.8	1.7	15.6	8.0	149.6	145.9	**1.34E-07**	0.78
307800	294.9	284.6	269.4	17.9	1.7	15.6	8.0	1.8	20.3	3.1	145.9	134.9	**1.11E-07**	0.96
220200	294.9	283.2	268.7	18.9	2.0	0.0	24.0	2.3	4.0	19.3	175.1	165.1	**1.16E-07**	0.85
296400	294.9	283.9	269.4	18.3	2.3	4.0	19.3	2.5	9.1	13.8	165.1	153.0	**1.12E-07**	0.93
130800	297.0	284.6	269.4	20.0	2.5	9.1	13.8	2.6	11.3	11.4	160.0	154.7	**1.11E-07**	0.92
86100	297.0	284.6	269.4	20.0	2.6	11.3	11.4	2.7	12.7	9.9	154.7	151.4	**1.10E-07**	0.93
209700	296.3	284.6	269.4	19.3	2.7	12.7	9.9	2.9	16.1	6.4	151.4	143.5	**1.11E-07**	0.97

392400	379.6	351.4	337.6	35.1	3.3	0.0	24.0	4.2	4.9	17.9	168.1	155.5	**8.65E-08**	0.80
189000	379.6	351.4	337.6	35.1	4.6	7.9	14.6	4.9	10.6	11.6	148.2	141.7	**1.04E-07**	0.90
255600	380.3	351.4	337.6	35.8	4.9	10.6	11.6	5.3	13.9	7.8	141.7	133.6	**1.01E-07**	0.87
218940	380.3	351.4	337.6	35.8	5.3	13.9	7.8	5.6	16.6	4.8	133.6	127.0	**9.96E-08**	0.90
162000	379.0	351.4	337.6	34.5	5.8	0.0	23.6	6.2	2.4	20.7	167.6	161.5	**9.91E-08**	0.83
501600	379.6	351.4	337.6	35.1	6.2	2.4	20.7	7.0	9.6	12.8	161.5	144.2	**9.83E-08**	0.91

Sample Location:	1+20	**Final Sample Cross-Sectional Area (cm^2):**	**34.88**
Depth:	Surface	Final Sample Length (cm):	7.99
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	32.8	Conversion Factor (burette to cm):	1.143
Final MC (%):	23.5		

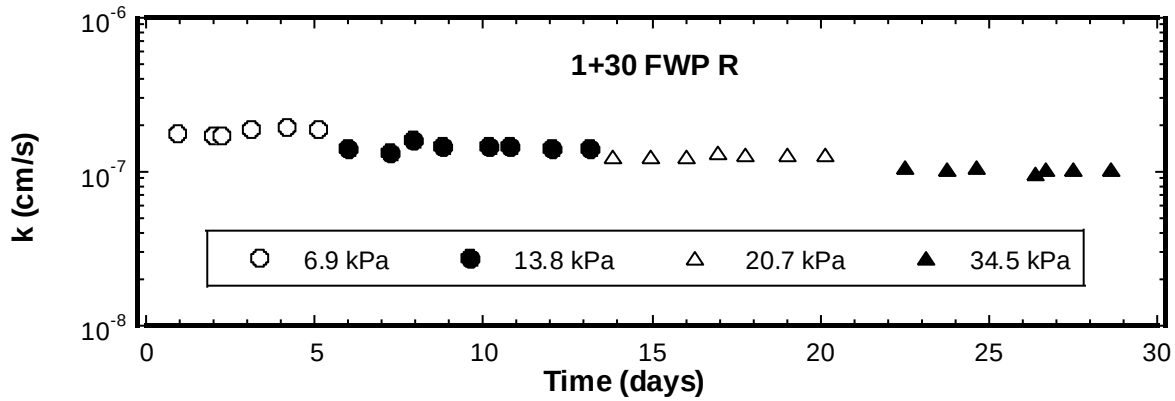


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
100380	34.5	31.0	24.1	6.9	0.6	0.5	24.5	6.3	4.1	16.3	97.8	84.3	**1.39E-07**	0.44
79560	34.5	31.0	24.1	6.9	6.3	4.1	16.3	7.4	9.1	12.1	84.3	73.8	**1.57E-07**	1.19
95580	34.5	31.0	24.1	6.9	7.4	9.1	12.1	8.1	13.6	7.7	73.8	63.6	**1.46E-07**	1.02
72000	34.5	31.0	24.1	6.9	8.1	13.6	7.7	8.6	16.6	4.7	63.6	56.7	**1.49E-07**	1.00
87660	34.5	31.0	24.1	6.9	8.6	16.6	4.7	9.1	19.3	1.5	56.7	50.0	**1.36E-07**	0.84
85620	34.5	31.0	24.1	6.9	9.1	0.3	24.7	9.3	5.9	18.9	98.2	85.2	**1.56E-07**	0.97
18840	34.5	31.0	24.1	6.9	9.3	5.9	18.9	9.3	7.1	17.8	85.2	82.6	**1.56E-07**	1.09
61680	34.5	31.0	24.1	6.9	9.5	0.7	24.5	9.8	4.9	20.2	97.5	87.8	**1.60E-07**	0.98
45540	34.5	31.0	24.1	6.9	9.8	4.9	20.2	9.9	7.7	17.5	87.8	81.5	**1.53E-07**	1.04

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
76080	41.3	31.0	24.1	13.8	0.2	0.2	24.6	1.6	3.6	19.8	98.2	88.9	**1.32E-07**	0.71
84660	41.3	31.0	24.1	13.8	1.6	3.6	19.8	1.9	7.5	15.7	88.9	79.7	**1.29E-07**	0.95
91560	41.3	31.0	24.1	13.8	1.9	7.5	15.7	2.2	11.5	11.6	79.7	70.5	**1.35E-07**	0.98
79440	41.3	31.0	24.1	13.8	2.2	11.5	11.6	2.4	14.6	8.5	70.5	63.4	**1.34E-07**	1.00
93000	41.3	31.0	24.1	13.8	2.4	14.6	8.5	2.6	17.9	5.3	63.4	55.9	**1.35E-07**	1.03
22440	41.3	31.0	24.1	13.8	2.6	17.9	5.3	2.6	18.6	4.5	55.9	54.2	**1.39E-07**	0.88
77280	41.3	31.0	24.1	13.8	2.6	0.2	24.4	2.7	4.5	19.9	97.9	87.9	**1.40E-07**	0.97
88920	41.3	31.0	24.1	13.8	2.7	4.5	19.9	2.8	8.8	15.6	87.9	78.1	**1.34E-07**	1.00
79920	41.3	31.0	24.1	13.8	2.8	8.8	15.6	2.9	12.3	12.2	78.1	70.2	**1.34E-07**	1.03
83700	41.3	31.0	24.1	13.8	2.9	12.3	12.2	3.0	15.6	8.9	70.2	62.7	**1.36E-07**	1.00
104040	41.3	31.0	24.1	13.8	3	15.6	8.9	3.2	19.4	5.2	62.7	54.1	**1.42E-07**	1.03
60180	50.3	35.1	24.1	20.7	3.7	1.9	24.4	6.3	5.0	19.0	138.3	128.5	**1.22E-07**	0.57
74940	50.3	35.1	24.1	20.7	6.3	5	19	6.7	9.8	14.0	128.5	117.3	**1.22E-07**	0.96
121680	50.3	35.1	24.1	20.7	6.7	9.8	14	7.0	16.6	7.0	117.3	101.6	**1.19E-07**	0.97
55620	50.3	35.1	24.1	20.7	7.0	16.6	7.0	7.1	19.5	4.1	101.6	94.9	**1.22E-07**	1.00
105780	50.3	35.1	24.1	20.7	7.1	19.5	4.1	7.2	24.5	-1.0	94.9	83.4	**1.23E-07**	0.98
93960	50.3	35.1	24.1	20.7	7.2	0.2	24.7	7.3	6.5	18.4	140.5	126.1	**1.16E-07**	1.00
58980	50.3	35.1	24.1	20.7	7.3	6.5	18.4	7.5	10.2	14.7	126.1	117.7	**1.18E-07**	1.00
86460	50.3	35.1	24.1	20.7	7.5	10.2	14.7	7.6	15.1	9.8	117.7	106.5	**1.16E-07**	1.00
104820	50.3	35.1	24.1	20.7	7.6	15.1	9.8	7.6	20.5	4.3	106.5	94.0	**1.19E-07**	0.98
67620	64.1	35.1	24.1	34.5	12.3	2.8	23.9	13.8	5.8	19.5	136.7	128.2	**9.49E-08**	0.68
72540	64.1	35.1	24.1	34.5	13.8	5.8	19.5	14.1	9.3	16.0	128.2	120.2	**8.92E-08**	1.00
105060	64.1	35.1	24.1	34.5	14.1	9.3	16	14.2	13.9	11.2	120.2	109.5	**8.95E-08**	0.96

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
84180	64.1	35.1	24.1	34.5	14.2	13.9	11.2	14.4	17.4	7.6	109.5	101.3	**9.19E-08**	0.97
75180	64.1	35.1	24.1	34.5	14.4	17.4	7.6	14.6	20.3	4.7	101.3	94.7	**9.04E-08**	1.00
89520	64.1	35.1	24.1	34.5	14.6	20.3	4.7	14.7	23.6	1.4	94.7	87.2	**9.31E-08**	1.00
74940	64.1	35.1	24.1	34.5	14.7	0.4	25	14.8	4.4	21.0	140.7	131.5	**9.01E-08**	1.00
18840	64.1	35.1	24.1	34.5	14.8	4.4	21	14.8	5.3	20.0	131.5	129.3	**8.88E-08**	0.90

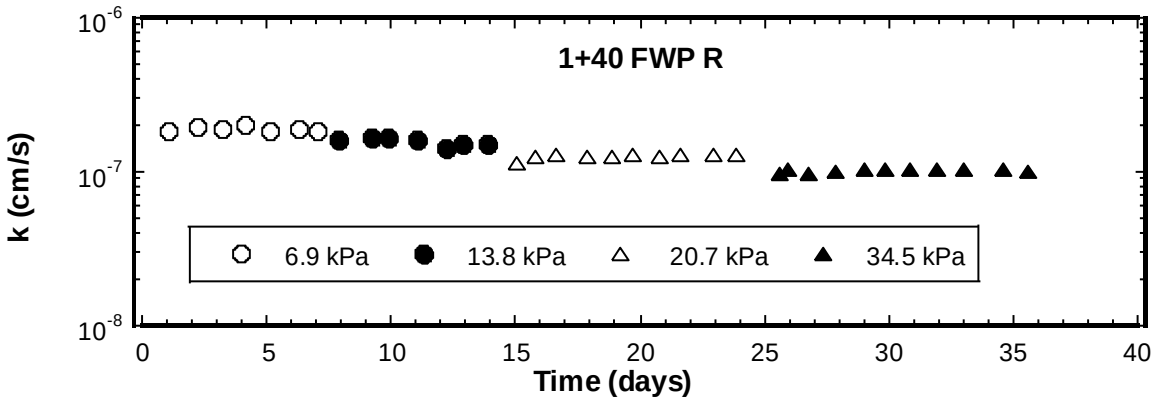
Sample Location:	1+30	**Final Sample Cross-Sectional Area (cm^2):**	31.62
Depth:	Surface	Final Sample Length (cm):	8.50
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	37.5	Conversion Factor (burette to cm):	1.143
Final MC (%):	24.2		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
79440	34.5	31.0	24.1	6.9	13.2	2.1	14	14.1	6.3	9.9	83.9	74.5	**1.78E-07**	1.02
93180	34.5	31.0	24.1	6.9	14.1	6.3	9.9	14.8	10.5	5.8	74.5	65.0	**1.73E-07**	1.02
21840	34.5	31.0	24.1	6.9	14.8	10.5	5.8	14.8	11.4	4.9	65.0	62.9	**1.74E-07**	1.00
77160	34.5	31.0	24.1	6.9	1.1	0.4	24.6	2.0	4.8	19.2	98.0	86.8	**1.86E-07**	0.81
88800	34.5	31.0	24.1	6.9	2	4.8	19.2	3.2	9.7	13.9	86.8	75.1	**1.92E-07**	0.92
83820	34.5	31.0	24.1	6.9	3.2	9.7	13.9	3.5	14.0	9.9	75.1	65.7	**1.90E-07**	1.08
75060	41.3	31.0	24.1	13.8	5.7	12.8	9	10.5	13.1	4.3	66.0	60.3	**1.42E-07**	0.06
104040	41.3	31.0	24.1	13.8	10.5	13.1	4.3	11.1	16.0	1.3	60.3	53.5	**1.34E-07**	0.97
58860	41.3	31.0	24.1	13.8	11.1	0.5	24.4	11.3	3.7	21.1	97.7	90.2	**1.59E-07**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
76140	41.3	31.0	24.1	13.8	11.3	3.7	21.1	11.6	7.3	17.5	90.2	82.0	**1.48E-07**	1.00
121740	41.3	31.0	24.1	13.8	11.6	7.3	17.5	11.8	12.4	12.6	82.0	70.6	**1.45E-07**	1.04
54840	41.3	31.0	24.1	13.8	11.8	12.4	12.6	12.0	14.5	10.6	70.6	65.9	**1.48E-07**	1.05
106920	41.3	31.0	24.1	13.8	12	14.5	10.6	12.2	18.1	7.2	65.9	57.9	**1.43E-07**	1.06
92760	50.3	35.1	24.1	20.7	12.8	2.6	24.3	15.4	7.9	16.7	137.3	122.6	**1.44E-07**	0.70
60720	50.3	35.1	24.1	20.7	15.4	7.9	16.7	15.9	11.2	13.3	122.6	114.9	**1.25E-07**	0.97
100140	50.3	35.1	24.1	20.7	15.9	11.2	13.3	16.2	16.3	8.1	114.9	103.2	**1.27E-07**	0.98
89520	50.3	35.1	24.1	20.7	16.2	16.3	8.1	16.4	20.4	4.0	103.2	93.8	**1.25E-07**	1.00
79860	50.3	35.1	24.1	20.7	0.5	0.4	24.4	0.9	5.6	19.0	140.0	127.9	**1.34E-07**	0.96
72060	50.3	35.1	24.1	20.7	0.9	5.6	19	1.2	9.9	14.7	127.9	118.0	**1.31E-07**	1.00
104940	50.3	35.1	24.1	20.7	1.2	9.9	14.7	1.4	15.5	9.1	118.0	105.2	**1.29E-07**	1.00
96780	50.3	35.1	24.1	20.7	1.4	15.5	9.1	1.6	20.0	4.2	105.2	94.5	**1.31E-07**	0.92
74520	64.1	35.1	24.1	34.5	8.7	1.5	23.5	9.4	5.3	19.4	137.7	128.7	**1.07E-07**	0.93
105120	64.1	35.1	24.1	34.5	9.4	0.4	24.8	9.5	5.7	19.4	140.4	128.2	**1.02E-07**	0.98
78240	64.1	35.1	24.1	34.5	9.5	5.7	19.4	9.7	9.9	15.9	128.2	119.4	**1.07E-07**	1.20
149400	64.1	35.1	24.1	34.5	9.7	9.9	15.9	10.2	15.8	9.8	119.4	105.7	**9.63E-08**	0.97
30060	64.1	35.1	24.1	34.5	10.2	15.8	9.8	10.2	17.0	8.6	105.7	102.9	**1.03E-07**	1.00
70080	64.1	35.1	24.1	34.5	10.2	17	8.6	10.3	19.7	6.0	102.9	96.9	**1.02E-07**	1.04
96300	64.1	35.1	24.1	34.5	10.3	19.7	6	10.4	23.3	2.7	96.9	89.0	**1.04E-07**	1.06
18420	64.1	35.1	24.1	34.5	10.5	0.3	24.5	10.5	1.4	23.4	140.2	137.7	**1.16E-07**	1.00

Sample Location:	1+40	**Final Sample Cross-Sectional Area (cm^2):**	34.33
Depth:	Surface	Final Sample Length (cm):	7.94
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	34.4	Conversion Factor (burette to cm):	1.143
Final MC (%):	24.4		

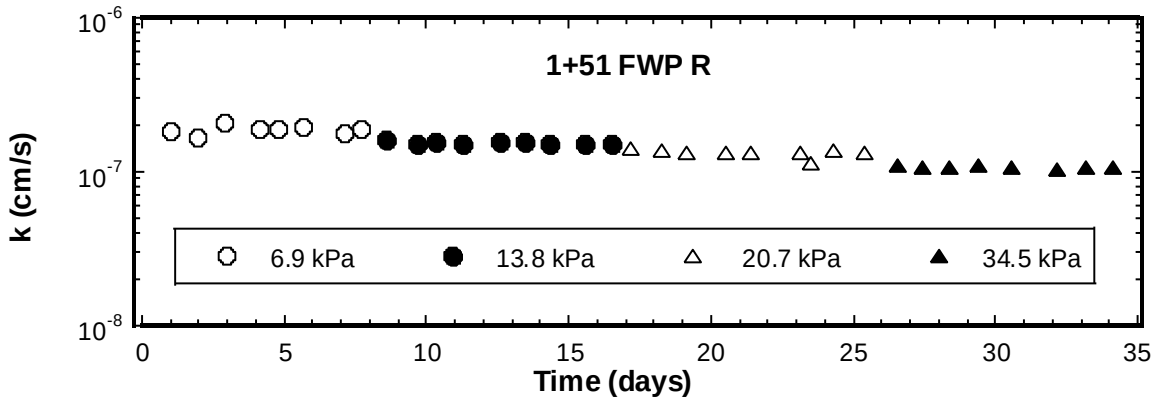


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
93480	34.5	31.0	24.1	6.9	1.2	5.9	24.7	5.6	10.3	16.4	91.8	77.3	**1.87E-07**	0.53
99180	34.5	31.0	24.1	6.9	5.6	10.3	16.4	6.2	16.2	10.5	77.3	63.8	**1.96E-07**	1.00
88860	34.5	31.0	24.1	6.9	6.2	16.2	10.5	6.7	20.5	6.2	63.8	54.0	**1.91E-07**	1.00
79980	34.5	31.0	24.1	6.9	6.7	20.5	6.2	7.2	24.1	2.8	54.0	46.0	**2.03E-07**	1.06
65100	34.5	31.0	24.1	6.9	7.2	0.6	24.8	7.3	5.4	20.1	98.0	87.1	**1.83E-07**	1.02
104160	34.5	31.0	24.1	6.9	7.3	5.4	20.1	7.8	12.2	13.5	87.1	71.8	**1.88E-07**	1.03
59820	34.5	31.0	24.1	6.9	7.8	12.2	13.5	7.9	15.5	10.3	71.8	64.4	**1.85E-07**	1.03
69720	41.3	31.0	24.1	13.8	9.8	14.6	9.5	12.9	16.3	5.2	64.5	57.7	**1.63E-07**	0.40
121740	41.3	31.0	24.1	13.8	12.9	16.3	5.2	13.2	20.8	0.6	57.7	47.3	**1.66E-07**	0.98

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
55440	41.3	31.0	24.1	13.8	13.3	0.2	24.5	13.5	4.0	20.8	98.1	89.5	**1.67E-07**	1.03
99060	41.3	31.0	24.1	13.8	13.5	4	20.8	13.6	9.8	15.0	89.5	76.3	**1.64E-07**	1.00
100860	41.3	31.0	24.1	13.8	13.6	9.8	15	13.8	14.3	10.6	76.3	66.1	**1.44E-07**	1.02
58980	41.3	31.0	24.1	13.8	13.8	14.3	10.6	13.9	16.8	8.2	66.1	60.5	**1.52E-07**	1.04
86400	41.3	31.0	24.1	13.8	13.9	16.8	8.2	14.0	20.1	5.0	60.5	53.1	**1.54E-07**	1.03
97740	50.3	35.1	24.1	20.7	16	19.7	3.6	18.2	23.7	-1.0	94.1	84.3	**1.14E-07**	0.87
67500	50.3	35.1	24.1	20.7	0.7	1.6	23.5	1.0	6.5	18.5	137.6	126.3	**1.29E-07**	0.98
72480	50.3	35.1	24.1	20.7	1	6.5	18.5	1.3	11.4	13.6	126.3	115.1	**1.30E-07**	1.00
105120	50.3	35.1	24.1	20.7	1.3	11.4	13.6	1.4	17.7	7.3	115.1	100.7	**1.29E-07**	1.00
84180	50.3	35.1	24.1	20.7	1.4	17.7	7.3	1.5	22.2	2.9	100.7	90.5	**1.28E-07**	1.02
75180	50.3	35.1	24.1	20.7	1.6	0.7	24.4	1.7	6.5	18.8	139.6	126.6	**1.32E-07**	1.04
89820	50.3	35.1	24.1	20.7	1.7	6.5	18.8	1.7	12.5	12.9	126.6	113.0	**1.28E-07**	1.02
74820	50.3	35.1	24.1	20.7	1.7	12.5	12.9	1.9	17.1	8.3	113.0	102.5	**1.32E-07**	1.00
116340	50.3	35.1	24.1	20.7	1.9	17.1	8.3	1.9	23.4	2.1	102.5	88.2	**1.31E-07**	1.02
77700	50.3	35.1	24.1	20.7	1.8	0.6	24.6	2.0	6.5	18.8	140.0	126.6	**1.31E-07**	1.02
148500	64.1	35.1	24.1	34.5	3.5	5.9	18.2	8.0	11.4	8.7	126.6	109.5	**9.94E-08**	0.58
30060	64.1	35.1	24.1	34.5	8	11.4	8.7	8.0	12.8	7.2	109.5	106.1	**1.04E-07**	0.93
70020	64.1	35.1	24.1	34.5	8	12.8	7.2	8.1	15.9	4.2	106.1	99.2	**9.84E-08**	1.03
95700	64.1	35.1	24.1	34.5	8.1	15.9	4.2	8.3	19.9	0.2	99.2	90.0	**1.03E-07**	1.00
100080	64.1	35.1	24.1	34.5	8.3	0.2	24.7	8.4	6.2	18.6	140.5	126.7	**1.05E-07**	0.98
74940	64.1	35.1	24.1	34.5	8.4	6.2	18.6	8.5	10.4	14.5	126.7	117.2	**1.05E-07**	1.02
84720	64.1	35.1	24.1	34.5	8.5	10.4	14.5	8.6	14.8	10.2	117.2	107.3	**1.06E-07**	1.02
90840	64.1	35.1	24.1	34.5	8.6	14.8	10.2	8.7	19.0	6.1	107.3	97.8	**1.03E-07**	1.02

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
98760	64.1	35.1	24.1	34.5	8.7	19	6.1	8.9	23.2	2.0	97.8	88.3	**1.05E-07**	1.02
134580	64.1	35.1	24.1	34.5	8.9	1.3	24.9	9.1	9.2	17.2	139.5	121.7	**1.03E-07**	1.03
88200	64.1	35.1	24.1	34.5	9.1	9.2	17.2	9.2	13.8	12.7	121.7	111.3	**1.03E-07**	1.02

Sample Location:	1+51	**Final Sample Cross-Sectional Area (cm^2):**	34.26
Depth:	Surface	Final Sample Length (cm):	7.52
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	34.1	Conversion Factor (burette to cm):	1.143
Final MC (%):	24.5		

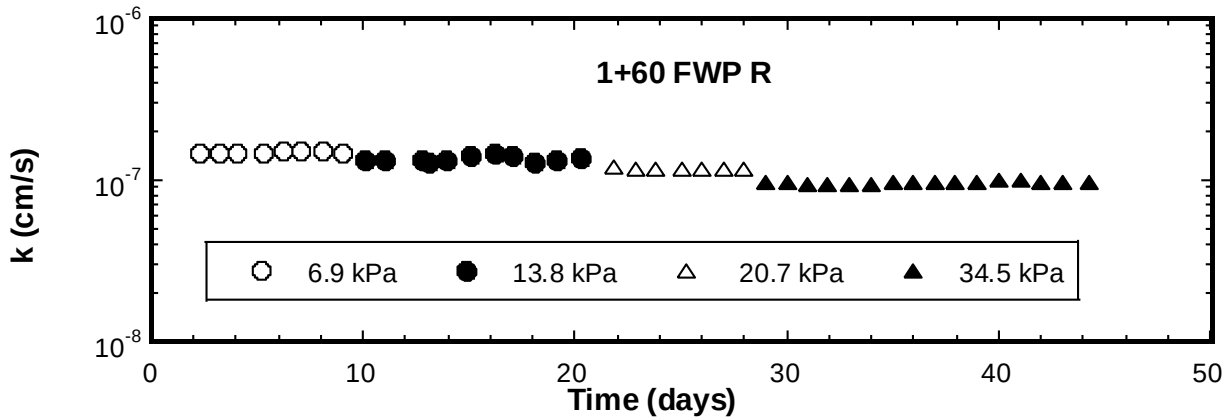


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
88920	34.5	31.0	24.1	6.9	1.8	1	23.9	6.1	5.7	15.3	96.5	81.3	**1.86E-07**	0.55
79920	34.5	31.0	24.1	6.9	6.1	5.7	15.3	6.8	9.8	10.1	81.3	70.7	**1.69E-07**	0.79
84360	34.5	31.0	24.1	6.9	6.8	9.8	10.1	7.5	15.4	5.4	70.7	58.9	**2.08E-07**	1.19
103380	34.5	31.0	24.1	6.9	7.5	15.4	5.4	8.5	20.1	0.6	58.9	48.1	**1.90E-07**	0.98
60360	34.5	31.0	24.1	6.9	8.5	0.5	24.7	9.0	5.3	19.8	98.0	86.9	**1.92E-07**	0.98
74880	34.5	31.0	24.1	6.9	9	5.3	19.8	9.4	10.9	14.6	86.9	74.6	**1.97E-07**	1.08
121560	34.5	31.0	24.1	6.9	9.4	10.9	14.6	10.0	17.3	7.8	74.6	59.5	**1.79E-07**	0.94
55680	34.5	31.0	24.1	6.9	10	17.3	7.8	10.4	20.0	5.1	59.5	53.3	**1.89E-07**	1.00
73080	41.3	31.0	24.1	13.8	14.5	0.3	24.9	15.5	4.9	19.6	98.5	87.1	**1.61E-07**	0.87

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
93900	41.3	31.0	24.1	13.8	15.5	4.9	19.6	16.2	10.0	14.3	87.1	75.3	**1.50E-07**	0.96
58860	41.3	31.0	24.1	13.8	16.2	10	14.3	16.5	13.0	11.3	75.3	68.4	**1.56E-07**	1.00
81360	41.3	31.0	24.1	13.8	16.5	13	11.3	16.9	16.6	7.7	68.4	60.2	**1.52E-07**	1.00
109920	41.3	31.0	24.1	13.8	16.9	16.6	7.7	17.2	20.8	3.4	60.2	50.5	**1.54E-07**	0.98
79740	41.3	31.0	24.1	13.8	0.3	0.2	24.8	0.7	5.3	19.5	98.5	86.6	**1.55E-07**	0.96
72540	41.3	31.0	24.1	13.8	0.7	5.3	19.5	1.1	9.3	15.4	86.6	77.3	**1.50E-07**	0.98
105060	41.3	31.0	24.1	13.8	1.1	9.3	15.4	1.3	14.4	10.2	77.3	65.5	**1.51E-07**	0.98
84180	41.3	31.0	24.1	13.8	1.3	14.4	10.2	1.6	17.9	6.7	65.5	57.5	**1.49E-07**	1.00
58200	50.3	35.1	24.1	20.7	2.2	18.3	6.1	5.5	20.3	1.0	98.6	90.5	**1.42E-07**	0.39
93120	50.3	35.1	24.1	20.7	5.5	0.2	25.2	6.2	7.5	17.3	141.1	123.7	**1.36E-07**	0.92
74940	50.3	35.1	24.1	20.7	6.2	7.5	17.3	6.4	12.8	11.9	123.7	111.5	**1.34E-07**	0.98
116580	50.3	35.1	24.1	20.7	6.4	12.8	11.9	6.7	19.9	4.6	111.5	95.1	**1.32E-07**	0.97
77580	50.3	35.1	24.1	20.7	6.7	19.9	4.6	7.0	24.2	0.4	95.1	85.3	**1.34E-07**	1.02
150240	50.3	35.1	24.1	20.7	7	0.2	24.7	7.3	11.6	13.2	140.5	114.4	**1.32E-07**	0.99
30060	50.3	35.1	24.1	20.7	7.3	11.6	13.2	7.3	13.5	11.6	114.4	110.4	**1.14E-07**	1.19
69780	50.3	35.1	24.1	20.7	7.3	13.5	11.6	7.6	17.9	6.8	110.4	99.9	**1.38E-07**	0.92
95820	50.3	35.1	24.1	20.7	7.6	17.9	6.8	7.8	23.3	1.3	99.9	87.4	**1.34E-07**	0.98
98520	64.1	35.1	24.1	34.5	9.3	1.1	24.6	12.9	5.9	16.3	139.4	124.4	**1.11E-07**	0.58
74880	64.1	35.1	24.1	34.5	12.9	5.9	16.3	13.2	10.2	11.9	124.4	114.5	**1.07E-07**	0.98
84780	64.1	35.1	24.1	34.5	13.2	10.2	11.9	13.3	14.7	7.3	114.5	104.1	**1.08E-07**	0.98
90720	64.1	35.1	24.1	34.5	13.3	14.7	7.3	13.6	19.1	2.8	104.1	93.9	**1.09E-07**	0.98
98880	64.1	35.1	24.1	34.5	7.4	0.5	24.1	7.6	6.8	17.6	139.5	124.9	**1.08E-07**	0.97
134520	64.1	35.1	24.1	34.5	7.6	6.8	17.6	8.0	14.3	10.1	124.9	107.7	**1.06E-07**	1.00

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
88020	64.1	35.1	24.1	34.5	8	14.3	10.1	8.1	18.7	5.7	107.7	97.7	**1.07E-07**	1.00
83640	64.1	35.1	24.1	34.5	8.1	18.7	5.7	8.2	22.5	1.8	97.7	88.9	**1.09E-07**	0.97

Sample Location:	1+60	**Final Sample Cross-Sectional Area (cm^2):**	35.71
Depth:	Surface	Final Sample Length (cm):	8.72
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	27.1	Conversion Factor (burette to cm):	1.143
Final MC (%):	19.6		

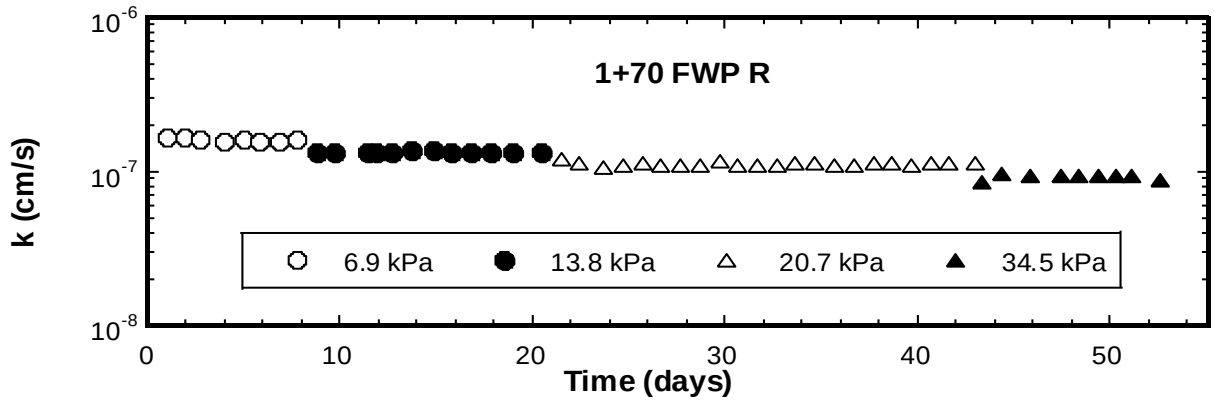


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
87420	34.5	31.0	24.1	6.9	9.3	8.6	24.3	11.7	9.9	21.0	88.3	83.0	**7.53E-08**	0.39
110640	34.5	31.0	24.1	6.9	11.7	9.9	21	12.7	14.8	15.8	83.0	71.5	**1.45E-07**	0.94
79920	34.5	31.0	24.1	6.9	12.7	14.8	15.8	13.5	18.1	12.7	71.5	64.1	**1.45E-07**	1.06
72060	34.5	31.0	24.1	6.9	13.5	18.1	12.7	14.3	20.8	10.1	64.1	58.1	**1.48E-07**	1.04
105060	34.5	31.0	24.1	6.9	14.3	20.8	10.1	15.0	24.2	6.7	58.1	50.3	**1.47E-07**	1.00
84120	34.5	31.0	24.1	6.9	0.7	0.7	23.9	1.5	5.4	19.2	96.9	86.1	**1.50E-07**	1.00
75420	34.5	31.0	24.1	6.9	1.5	5.4	19.2	2.0	9.2	15.5	86.1	77.5	**1.50E-07**	1.01
89940	34.5	31.0	24.1	6.9	2.0	9.2	15.5	2.4	13.2	11.4	77.5	68.2	**1.51E-07**	0.99
74520	34.5	31.0	24.1	6.9	2.4	13.2	11.4	3.1	16.1	8.5	68.2	61.6	**1.47E-07**	1.00

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
96240	41.3	31.0	24.1	13.8	5.8	15.5	6.9	6.8	18.2	3.6	60.5	53.6	**1.34E-07**	0.82
78180	41.3	31.0	24.1	13.8	6.8	0.8	24.2	7.2	4.7	20.2	97.1	88.1	**1.34E-07**	0.98
149520	41.3	31.0	24.1	13.8	7.2	4.7	20.2	7.9	11.2	13.7	88.1	73.2	**1.33E-07**	1.00
30000	41.3	31.0	24.1	13.8	7.9	11.2	13.7	7.9	12.3	12.5	73.2	70.5	**1.31E-07**	0.92
70020	41.3	31.0	24.1	13.8	7.9	12.3	12.5	8.2	14.9	9.9	70.5	64.6	**1.35E-07**	1.00
96300	41.3	31.0	24.1	13.8	8.2	14.9	9.9	8.4	18.3	6.6	64.6	56.9	**1.41E-07**	1.03
99720	41.3	31.0	24.1	13.8	8.4	18.3	6.6	8.6	21.4	3.4	56.9	49.7	**1.46E-07**	0.97
75480	41.3	31.0	24.1	13.8	8.6	0.5	24.7	8.9	4.5	20.6	98.0	88.7	**1.41E-07**	0.98
76740	41.3	31.0	24.1	13.8	8.9	4.5	20.6	8.9	7.9	17.1	88.7	80.8	**1.30E-07**	0.97
90840	41.3	31.0	24.1	13.8	8.9	7.9	17.1	9.2	11.6	13.3	80.8	72.3	**1.32E-07**	0.97
98940	41.3	31.0	24.1	13.8	9.2	11.6	13.3	9.4	15.5	9.6	72.3	63.6	**1.39E-07**	1.05
134760	50.3	35.1	24.1	20.7	0.3	0.3	24.5	2.9	8.0	14.9	140.2	120.4	**1.21E-07**	0.80
88260	50.3	35.1	24.1	20.7	2.9	8	14.9	3.2	12.8	10.0	120.4	109.3	**1.17E-07**	0.98
84840	50.3	35.1	24.1	20.7	3.2	12.8	10	3.4	17.1	5.7	109.3	99.4	**1.19E-07**	1.00
104760	50.3	35.1	24.1	20.7	3.4	17.1	5.7	3.6	21.8	0.9	99.4	88.6	**1.18E-07**	0.98
87120	50.3	35.1	24.1	20.7	3.6	0.6	24.5	3.7	6.2	18.9	139.9	127.0	**1.18E-07**	1.00
88260	50.3	35.1	24.1	20.7	3.7	6.2	18.9	3.8	11.3	13.7	127.0	115.2	**1.18E-07**	0.98
83160	50.3	35.1	24.1	20.7	3.8	11.3	13.7	4.0	15.7	9.4	115.2	105.3	**1.16E-07**	1.02
85440	64.1	35.1	24.1	34.5	5.9	14.9	8.7	8.4	17.2	4.1	105.4	97.5	**9.76E-08**	0.50
87060	64.1	35.1	24.1	34.5	8.4	0.1	24.6	8.6	4.7	19.8	140.5	129.8	**9.80E-08**	0.96
87180	64.1	35.1	24.1	34.5	8.6	4.7	19.8	8.7	8.9	15.5	129.8	120.0	**9.57E-08**	0.98
78840	64.1	35.1	24.1	34.5	8.7	8.9	15.5	8.9	12.4	11.9	120.0	111.9	**9.52E-08**	0.97
92160	64.1	35.1	24.1	34.5	8.9	12.4	11.9	9.0	16.2	8.0	111.9	103.1	**9.53E-08**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
87000	64.1	35.1	24.1	34.5	9	16.2	8.0	9.1	19.6	4.7	103.1	95.4	**9.52E-08**	1.03
86700	64.1	35.1	24.1	34.5	0.3	0.3	24.4	0.4	4.8	19.7	140.1	129.6	**9.65E-08**	0.96
87660	64.1	35.1	24.1	34.5	0.4	4.8	19.7	0.5	9.1	15.3	129.6	119.6	**9.77E-08**	0.98
83880	64.1	35.1	24.1	34.5	0.5	9.1	15.3	0.6	12.9	11.4	119.6	110.8	**9.77E-08**	0.97
86940	64.1	35.1	24.1	34.5	0.6	12.9	11.4	0.7	16.6	7.8	110.8	102.4	**9.66E-08**	1.03
89520	64.1	35.1	24.1	34.5	0.7	16.6	7.8	1.0	20.1	4.2	102.4	94.3	**9.89E-08**	0.97
84180	64.1	35.1	24.1	34.5	1.0	0.0	24.7	1.0	4.6	20.0	140.8	130.1	**1.00E-07**	0.98
87120	64.1	35.1	24.1	34.5	1.1	4.6	20	1.2	9.0	15.6	130.1	120.0	**9.90E-08**	1.00
85440	64.1	35.1	24.1	34.5	1.2	9.0	15.6	1.3	12.9	11.7	120.0	111.1	**9.69E-08**	1.00
86220	64.1	35.1	24.1	34.5	1.3	12.9	11.7	1.3	16.6	8.0	111.1	102.6	**9.85E-08**	1.00
110220	64.1	35.1	24.1	34.5	1.3	16.6	8.0	1.4	20.9	3.7	102.6	92.8	**9.80E-08**	1.00

Sample Location:	1+70	**Final Sample Cross-Sectional Area (cm^2):**	35.61
Depth:	Surface	Final Sample Length (cm):	7.90
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	31.2	Conversion Factor (burette to cm):	1.143
Final MC (%):	22.7		

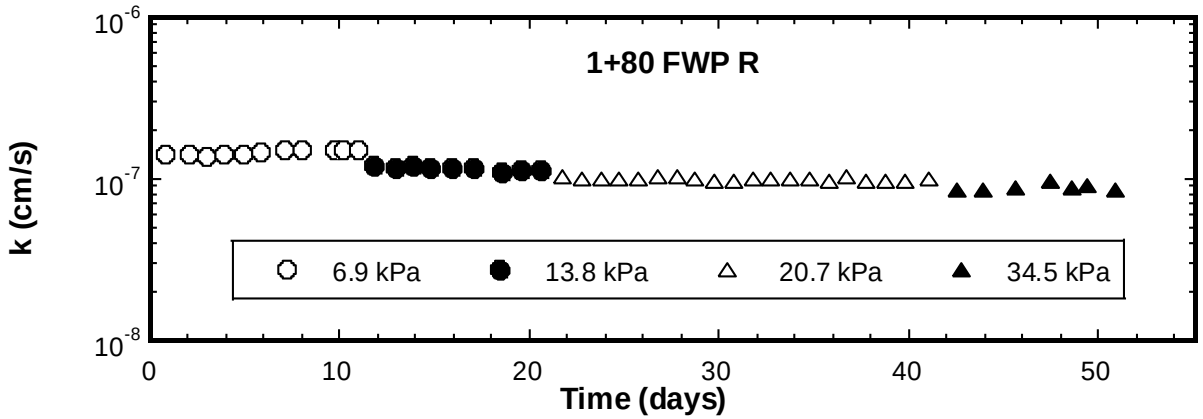


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
88800	34.5	31.0	24.1	6.9	3.4	2.9	12.8	4.9	7.5	7.4	81.6	70.2	**1.65E-07**	0.85
79680	34.5	31.0	24.1	6.9	4.9	7.5	7.4	6.8	11.3	3.5	70.2	61.4	**1.64E-07**	0.97
72600	34.5	31.0	24.1	6.9	6.8	0.7	24.5	8.1	5.5	19.7	97.5	86.5	**1.60E-07**	1.00
105000	34.5	31.0	24.1	6.9	8.1	5.5	19.7	9.4	11.4	13.8	86.5	73.1	**1.57E-07**	1.00
84240	34.5	31.0	24.1	6.9	9.4	11.4	13.8	10.6	15.4	9.6	73.1	63.7	**1.59E-07**	0.95
71520	34.5	31.0	24.1	6.9	10.6	15.4	9.6	11.5	18.4	6.5	63.7	56.7	**1.58E-07**	0.97
92760	34.5	31.0	24.1	6.9	11.5	18.4	6.5	11.9	21.8	3.0	56.7	48.8	**1.57E-07**	0.97
74520	34.5	31.0	24.1	6.9	11.9	0.4	24.7	12.3	5.3	19.7	98.1	86.8	**1.60E-07**	0.98
95940	41.3	31.0	24.1	13.8	16.1	4.6	17.2	17.9	8.5	11.9	84.7	74.2	**1.34E-07**	0.74

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
77340	41.3	31.0	24.1	13.8	17.9	8.5	11.9	18.6	11.7	8.6	74.2	66.8	**1.33E-07**	0.97
150480	41.3	31.0	24.1	13.8	0.6	0.3	24.8	2.2	7.9	16.3	98.3	79.9	**1.34E-07**	0.89
30060	41.3	31.0	24.1	13.8	2.2	7.9	16.3	2.3	9.2	14.8	79.9	76.7	**1.32E-07**	0.87
69780	41.3	31.0	24.1	13.8	2.3	9.2	14.8	2.6	12.2	11.7	76.7	69.7	**1.33E-07**	0.97
95820	41.3	31.0	24.1	13.8	2.6	12.2	11.7	2.9	16.0	7.8	69.7	60.9	**1.37E-07**	0.97
100140	41.3	31.0	24.1	13.8	2.9	16	7.8	3.1	19.5	4.3	60.9	52.9	**1.37E-07**	1.00
74700	41.3	31.0	24.1	13.8	3.1	19.5	4.3	3.3	21.7	2.0	52.9	47.8	**1.33E-07**	0.96
85020	41.3	31.0	24.1	13.8	3.3	0.4	24.5	3.5	5.0	19.8	97.9	87.2	**1.32E-07**	0.98
90660	41.3	31.0	24.1	13.8	3.5	5	19.8	3.7	9.4	15.3	87.2	77.1	**1.33E-07**	0.98
98220	41.3	31.0	23.4	14.1	3.7	9.4	15.3	4.0	14.0	10.7	84.1	73.6	**1.32E-07**	1.00
134700	41.3	31.0	23.4	14.1	4	14	10.7	4.3	19.2	5.0	73.6	61.1	**1.34E-07**	0.91
81360	50.3	35.1	24.1	20.7	5.6	1.2	23.7	7.1	6.4	17.2	138.2	124.8	**1.22E-07**	0.80
83580	50.3	35.1	24.1	20.7	7.1	6.4	17.2	7.6	11.5	12.1	124.8	113.2	**1.14E-07**	1.00
106500	50.3	35.1	24.1	20.7	7.6	11.5	12.1	7.6	16.8	6.5	113.2	100.7	**1.07E-07**	0.95
87240	50.3	35.1	24.1	20.7	7.6	16.8	6.5	7.8	20.9	2.3	100.7	91.2	**1.10E-07**	0.98
88260	50.3	35.1	24.1	20.7	7.8	0.6	24.3	7.8	6.6	18.2	139.6	125.7	**1.15E-07**	0.98
86160	50.3	35.1	24.1	20.7	7.8	6.6	18.2	8.1	11.8	13.1	125.7	114.0	**1.11E-07**	1.02
85320	50.3	35.1	24.1	20.7	8.1	11.8	13.1	8.1	16.3	8.4	114.0	103.5	**1.10E-07**	0.96
87120	50.3	35.1	24.1	20.7	8.1	16.3	8.4	8.4	20.5	4.1	103.5	93.7	**1.10E-07**	0.98
87180	50.3	35.1	24.1	20.7	8.4	0.7	24.3	8.5	6.6	18.2	139.5	125.7	**1.16E-07**	0.97
78900	50.3	35.1	24.1	20.7	8.5	6.6	18.2	8.6	11.4	13.5	125.7	114.9	**1.11E-07**	1.02
91800	50.3	35.1	24.1	20.7	8.6	11.4	13.5	8.8	16.4	8.5	114.9	103.5	**1.11E-07**	1.00
87540	50.3	35.1	24.1	20.7	8.8	16.4	8.5	8.9	20.7	4.2	103.5	93.6	**1.11E-07**	1.00
86400	50.3	35.1	24.1	20.7	0.8	0.3	24.2	0.8	6.1	18.2	139.8	126.3	**1.14E-07**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
87660	50.3	35.1	24.1	20.7	0.8	6.1	18.2	0.9	11.5	12.9	126.3	114.1	**1.13E-07**	1.02
84060	50.3	36.5	23.4	20.3	0.9	11.5	12.9	1.0	16.9	7.4	135.2	122.7	**1.12E-07**	0.98
86940	50.3	36.5	23.4	20.3	1	16.9	7.4	1.2	22.0	2.3	122.7	111.1	**1.12E-07**	1.00
89460	50.3	36.5	23.4	20.3	1.2	0.8	24	1.6	7.8	16.9	160.1	144.0	**1.15E-07**	0.99
84000	50.3	35.8	23.4	20.7	1.6	7.8	16.9	1.7	13.5	11.4	137.0	124.2	**1.14E-07**	1.04
87060	50.3	34.5	24.8	20.7	1.7	13.5	11.4	1.8	17.7	7.8	96.0	87.1	**1.09E-07**	1.17
85440	50.3	35.1	24.8	20.3	1.8	17.7	7.8	1.9	21.4	3.7	94.1	85.2	**1.13E-07**	0.90
86340	50.3	35.1	24.8	20.3	1.9	0.3	24.5	1.9	5.8	18.9	133.1	120.4	**1.13E-07**	0.98
109560	50.3	35.1	24.1	20.7	1.9	5.8	18.9	2.0	12.5	12.3	127.5	112.3	**1.13E-07**	1.02
39360	64.1	35.1	24.1	34.5	5.3	11.3	10.5	6.7	12.1	8.0	111.6	107.8	**8.50E-08**	0.32
87720	64.1	35.1	24.1	34.5	6.7	12.1	8	7.0	16.2	4.2	107.8	98.8	**9.70E-08**	1.08
122880	64.1	35.1	24.1	34.5	7	0.3	24.9	7.2	7.2	17.9	140.6	124.7	**9.50E-08**	0.99
143760	64.1	35.1	24.1	34.5	7.2	7.2	17.9	7.5	14.2	10.9	124.7	108.7	**9.29E-08**	1.00
75840	64.1	35.1	24.1	34.5	7.5	14.2	10.9	7.7	17.6	7.5	108.7	100.9	**9.52E-08**	1.00
83220	64.1	35.1	24.1	34.5	7.7	17.6	7.5	7.7	21.0	4.0	100.9	93.1	**9.51E-08**	0.97
86940	64.1	35.1	24.1	34.5	7.7	21	4	7.8	24.4	0.8	93.1	85.5	**9.46E-08**	1.06
69780	64.1	35.1	24.1	34.5	7.9	0.4	24.8	8.0	4.4	20.8	140.4	131.2	**9.39E-08**	1.00
123180	64.1	35.1	24.1	34.5	8	4.4	20.8	8.1	10.4	14.8	131.2	117.5	**8.72E-08**	1.00

Sample Location:	1+80	**Final Sample Cross-Sectional Area (cm^2):**	35.36
Depth:	Surface	Final Sample Length (cm):	8.58
Sample Type:	Remolded flexible wall	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	30.0	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.7		

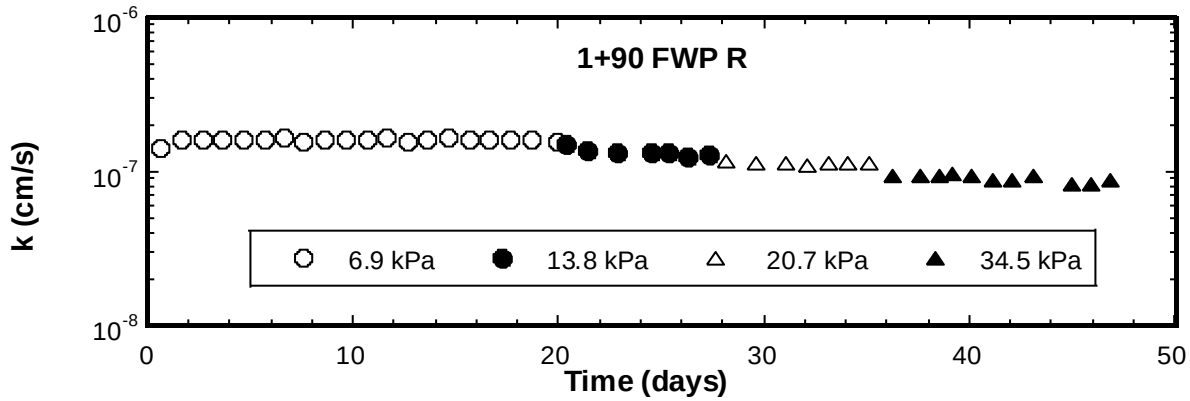


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
72000	34.5	31.0	24.1	6.9	0.8	1.7	24.7	5.2	3.6	18.8	96.6	87.7	**1.43E-07**	0.32
104700	34.5	31.0	24.1	6.9	5.2	3.6	18.8	6.1	8.5	13.7	87.7	76.3	**1.42E-07**	0.96
84540	34.5	31.0	24.1	6.9	6.1	8.5	13.7	6.8	12.0	10.3	76.3	68.4	**1.37E-07**	1.03
75720	34.5	31.0	24.1	6.9	6.8	12	10.3	7.3	14.9	7.5	68.4	61.8	**1.41E-07**	1.04
89940	34.5	31.0	24.1	6.9	7.3	14.9	7.5	7.6	18.0	4.4	61.8	54.8	**1.44E-07**	1.00
73620	34.5	31.7	24.1	6.5	0.7	1.7	24.8	1.4	6.0	20.4	103.7	93.8	**1.46E-07**	0.98
115980	34.5	31.0	24.1	6.9	1.4	6	20.4	1.9	11.7	14.5	86.8	73.5	**1.52E-07**	0.97
78420	34.5	31.0	24.1	6.9	1.9	11.7	14.5	2.2	15.1	11.1	73.5	65.7	**1.52E-07**	1.00

149160	34.5	31.0	24.1	6.9	2.2	15.1	11.1	2.7	20.7	5.7	65.7	53.2	**1.51E-07**	1.04
30060	34.5	31.0	24.1	6.9	2.7	0.9	24.1	2.7	2.6	22.3	96.8	92.8	**1.49E-07**	0.94
70800	34.5	31.0	24.1	6.9	2.7	2.6	22.3	2.8	6.5	18.5	92.8	84.0	**1.50E-07**	1.03
75300	41.3	31.0	24.1	13.8	6.1	5.6	16.4	7.5	8.1	12.9	82.7	75.8	**1.22E-07**	0.71
99540	41.3	31.0	24.1	13.8	7.5	8.1	12.9	7.8	11.5	9.3	75.8	67.8	**1.19E-07**	0.94
75540	41.3	31.0	24.1	13.8	7.8	11.5	9.3	8.0	13.9	6.8	67.8	62.2	**1.21E-07**	0.96
83820	41.3	31.0	24.1	13.8	8	13.9	6.8	8.2	16.3	4.4	62.2	56.7	**1.17E-07**	1.00
90780	41.3	31.0	24.1	13.8	8.2	16.3	4.4	8.4	18.6	2.0	56.7	51.3	**1.17E-07**	0.96
99120	41.3	31.0	24.1	13.8	8.4	0.9	24.3	8.7	5.3	19.9	97.1	87.0	**1.17E-07**	1.00
134700	41.3	31.0	24.1	13.8	8.7	5.3	19.9	9.0	10.4	14.9	87.0	75.5	**1.12E-07**	1.02
88260	41.3	31.0	24.1	13.8	9	10.4	14.9	9.2	13.4	11.9	75.5	68.6	**1.15E-07**	1.00
85200	41.3	31.0	24.1	13.8	9.2	13.4	11.9	9.4	16.0	9.3	68.6	62.6	**1.13E-07**	1.00
99120	50.3	35.1	24.1	20.7	10.7	0.3	24.5	12.9	4.9	17.8	140.2	127.2	**1.04E-07**	0.69
87180	50.3	35.1	24.1	20.7	12.9	4.9	17.8	13.1	9.2	13.3	127.2	117.2	**1.01E-07**	0.96
88200	50.3	35.1	24.1	20.7	13.1	9.2	13.3	13.3	13.3	9.2	117.2	107.8	**1.01E-07**	1.00
86400	50.3	35.1	24.1	20.7	13.3	13.3	9.2	13.5	16.9	5.5	107.8	99.5	**9.92E-08**	0.97
85380	50.3	35.1	24.1	20.7	13.5	16.9	5.5	13.6	20.3	2.1	99.5	91.7	**1.01E-07**	1.00
87000	50.3	35.1	24.1	20.7	1.5	0.7	24.2	1.7	5.5	19.2	139.4	128.2	**1.02E-07**	0.96
86040	50.3	35.1	24.1	20.7	1.7	5.5	19.2	1.8	10.0	14.7	128.2	117.9	**1.03E-07**	1.00
79980	50.3	35.1	24.1	20.7	1.8	10	14.7	2.0	13.7	11.0	117.9	109.4	**9.91E-08**	1.00
92220	50.3	35.1	24.1	20.7	2	13.7	11	2.1	17.6	7.1	109.4	100.5	**9.81E-08**	1.00
87060	50.3	35.1	24.1	20.7	2.1	17.6	7.1	2.3	21.0	3.7	100.5	92.7	**9.84E-08**	1.00
86520	50.3	35.1	24.1	20.7	2.3	0.3	24.1	2.4	5.0	19.2	139.7	128.7	**1.01E-07**	0.96
87720	50.3	35.1	24.1	20.7	2.4	5	19.2	2.9	9.5	14.7	128.7	118.4	**1.01E-07**	1.00
83820	50.3	35.1	24.1	20.7	2.9	9.5	14.7	2.9	13.4	10.8	118.4	109.5	**9.93E-08**	1.00
87000	50.3	35.1	24.1	20.7	2.9	13.4	10.8	2.9	17.2	7.0	109.5	100.8	**1.01E-07**	1.00
89520	50.3	35.1	24.1	20.7	2.9	17.2	7	2.9	20.7	3.5	100.8	92.8	**9.83E-08**	1.00

84180	50.3	35.1	24.1	20.7	2.9	0.2	24.8	2.9	5.0	19.9	140.6	129.5	**1.04E-07**	0.98
87180	50.3	35.1	24.1	20.7	2.9	5	19.9	3.1	9.4	15.5	129.5	119.5	**9.87E-08**	1.00
85380	50.3	35.1	24.1	20.7	3.1	9.4	15.5	3.2	13.4	11.6	119.5	110.4	**9.79E-08**	1.03
86280	50.3	35.1	24.1	20.7	3.2	13.4	11.6	3.2	17.1	7.9	110.4	102.0	**9.83E-08**	1.00
110340	50.3	35.1	24.1	20.7	3.2	17.1	7.9	3.4	21.5	3.6	102.0	92.0	**9.89E-08**	1.02
40560	64.1	35.1	24.1	34.5	6.4	0.4	24.7	8.2	1.8	21.7	140.3	135.2	**9.58E-08**	0.47
87720	64.1	35.1	24.1	34.5	8.2	1.8	21.7	8.5	5.7	17.6	135.2	126.1	**8.49E-08**	0.95
122040	64.1	35.1	24.1	34.5	8.5	5.7	17.6	8.7	10.7	12.4	126.1	114.4	**8.46E-08**	0.96
143820	64.1	35.1	24.1	34.5	8.7	10.7	12.4	9.2	16.2	6.7	114.4	101.6	**8.78E-08**	0.96
159780	64.1	35.1	24.1	34.5	9.2	16.2	6.7	11.4	21.4	0.0	101.6	88.0	**9.57E-08**	0.78
102120	64.1	35.1	24.1	34.5	11.4	0.2	24.7	11.6	5.1	19.6	140.5	129.1	**8.84E-08**	0.96
70380	64.1	35.1	24.1	34.5	11.6	5.1	19.6	11.8	8.2	16.1	129.1	121.5	**9.10E-08**	0.89
123540	64.1	35.1	24.1	34.5	11.8	8.2	16.1	11.9	13.7	11.5	121.5	110.0	**8.60E-08**	1.20

Sample Location:	1+90 (a)	**Final Sample Cross-Sectional Area (cm^2):**	35.50
Depth:	Surface	Final Sample Length (cm):	8.39
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	28.2	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.2		

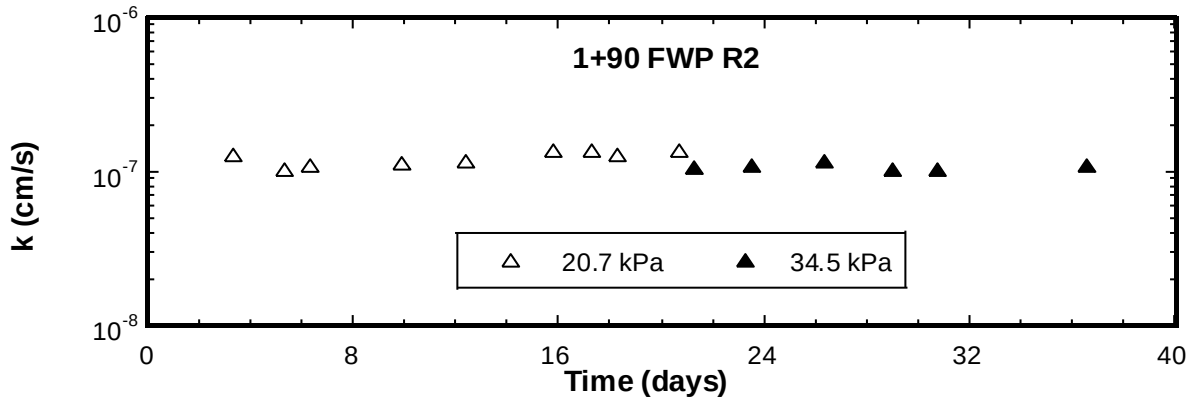


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
55980	34.5	31.0	24.1	6.9	0.2	3	24.7	5.0	3.8	19.3	95.1	88.0	**1.43E-07**	0.15
87360	34.5	31.0	24.1	6.9	5	3.8	19.3	6.2	8.5	14.3	88.0	76.9	**1.60E-07**	0.94
88140	34.5	31.0	24.1	6.9	6.2	8.5	14.3	8.0	12.8	10.1	76.9	67.2	**1.59E-07**	1.02
86160	34.5	31.0	24.1	6.9	8	12.8	10.1	9.5	16.5	6.5	67.2	58.9	**1.59E-07**	1.03
85380	34.5	31.0	24.1	6.9	9.5	16.5	6.5	10.8	19.7	3.3	58.9	51.6	**1.61E-07**	1.00
87000	34.5	31.0	24.1	6.9	10.8	19.7	3.3	11.8	22.6	0.5	51.6	45.0	**1.61E-07**	1.04
87240	34.5	31.0	24.1	6.9	1.5	0.7	24.5	2.3	6.2	18.9	97.5	84.8	**1.66E-07**	0.98
78840	34.5	31.0	24.1	6.9	2.3	6.2	18.9	3.3	10.5	14.8	84.8	75.2	**1.58E-07**	1.05
91860	34.5	31.0	24.1	6.9	3.3	10.5	14.8	4.2	14.9	10.5	75.2	65.3	**1.60E-07**	1.02

87360	34.5	31.0	24.1	6.9	4.2	14.9	10.5	5.0	18.5	6.9	65.3	57.0	**1.60E-07**	1.00
86580	34.5	31.0	24.1	6.9	5	18.5	6.9	5.3	21.7	3.8	57.0	49.8	**1.61E-07**	1.03
87660	34.5	31.0	24.1	6.9	5.3	0.4	24.4	5.6	6.0	18.9	97.7	85.1	**1.64E-07**	1.02
84000	34.5	31.0	24.1	6.9	5.6	6	18.9	6.0	10.5	14.5	85.1	74.9	**1.57E-07**	1.02
86940	34.5	31.0	24.1	6.9	6	10.5	14.5	6.3	14.7	10.4	74.9	65.4	**1.61E-07**	1.02
89460	34.5	31.0	24.1	6.9	6.3	14.7	10.4	6.4	18.5	6.6	65.4	56.7	**1.65E-07**	1.00
84060	34.5	31.0	24.1	6.9	6.4	18.5	6.6	6.7	21.5	3.6	56.7	49.8	**1.59E-07**	1.00
87060	34.5	31.0	24.1	6.9	6.7	0.9	24.5	7.1	6.4	19.1	97.3	84.8	**1.63E-07**	1.02
85440	34.5	31.0	24.1	6.9	7.1	6.4	19.1	7.2	11.0	14.6	84.8	74.4	**1.59E-07**	1.02
86400	34.5	31.0	24.1	6.9	7.2	11.0	14.6	7.3	15.1	10.6	74.4	65.2	**1.59E-07**	1.03
109740	34.5	31.0	24.1	6.9	7.3	15.1	10.6	7.5	19.5	6.2	65.2	55.1	**1.58E-07**	1.00
40020	41.3	31.0	24.1	13.8	10.4	0.3	24.6	11.7	2.2	21.7	98.1	92.6	**1.49E-07**	0.66
87300	41.3	31.0	24.1	13.8	11.7	2.2	21.7	12.4	6.5	17.2	92.6	82.5	**1.36E-07**	0.96
122880	41.3	31.0	24.1	13.8	12.4	6.5	17.2	13.0	11.8	11.8	82.5	70.3	**1.35E-07**	0.98
143820	41.3	31.0	24.1	13.8	13	11.8	11.8	13.6	17.1	6.6	70.3	58.3	**1.35E-07**	1.02
75780	41.3	31.0	24.1	13.8	13.6	17.1	6.6	13.7	19.5	4.2	58.3	52.8	**1.35E-07**	1.00
83280	41.3	31.0	24.1	13.8	13.7	19.5	4.2	14.0	21.8	2.0	52.8	47.7	**1.27E-07**	1.05
86940	41.3	31.0	24.1	13.8	14.0	21.8	2.0	14.2	24.0	-0.1	47.7	42.8	**1.30E-07**	1.05
70440	50.3	35.1	24.1	20.7	17.8	0.4	24.8	19.1	4.8	19.7	140.4	129.5	**1.18E-07**	0.86
123300	50.3	35.1	24.1	20.7	19.1	4.8	19.7	19.7	12.0	12.6	129.5	113.2	**1.13E-07**	1.01
130620	50.3	35.1	24.1	20.7	19.7	12	12.6	20.2	18.6	6.1	113.2	98.2	**1.13E-07**	1.02
91920	50.3	35.1	24.1	20.7	20.2	18.6	6.1	20.8	22.7	2.1	98.2	88.9	**1.12E-07**	1.03
84480	50.3	35.1	24.1	20.7	20.9	0.3	25.1	21.2	5.8	19.6	140.8	128.3	**1.15E-07**	1.00
84720	50.3	35.1	24.1	20.7	21.2	5.8	19.6	21.4	10.8	14.7	128.3	116.9	**1.13E-07**	1.02
87720	50.3	35.1	24.1	20.7	21.4	10.8	14.7	21.6	15.5	10.1	116.9	106.3	**1.13E-07**	1.02
99240	64.1	35.1	24.1	34.5	2.0	1.2	25	5.2	5.2	18.6	139.7	127.8	**9.29E-08**	0.63
112320	64.1	35.1	24.1	34.5	5.2	5.2	18.6	5.8	10.5	13.1	127.8	115.5	**9.37E-08**	0.96

84240	64.1	35.1	24.1	34.5	5.8	10.5	13.1	6.2	14.3	9.4	115.5	106.9	**9.49E-08**	1.03
51660	64.1	35.1	24.1	34.5	6.2	14.3	9.4	6.6	16.5	7.2	106.9	101.9	**9.67E-08**	1.00
84480	64.1	35.1	24.1	34.5	6.6	16.5	7.2	7.0	19.8	4.0	101.9	94.4	**9.29E-08**	1.03
91380	64.1	35.1	24.1	34.5	7.0	0.5	24.9	7.4	5.1	20.3	140.4	129.9	**8.83E-08**	1.00
80520	64.1	35.1	24.1	34.5	7.4	5.1	20.3	7.7	8.9	16.6	129.9	121.3	**8.79E-08**	1.03
87300	64.1	35.1	24.1	34.5	7.8	9.4	16.0	8.1	13.4	12.1	120.0	110.9	**9.34E-08**	1.01
157980	64.1	35.1	24.1	34.5	8.1	13.4	12.1	8.7	19.3	6.4	110.9	97.7	**8.31E-08**	1.04
80640	64.1	35.1	24.1	34.5	8.7	19.3	6.4	9.0	22.0	3.8	97.7	91.7	**8.22E-08**	1.04
82800	64.1	35.1	24.1	34.5	9.0	0.5	25	9.1	4.6	20.8	140.5	131.0	**8.75E-08**	0.98

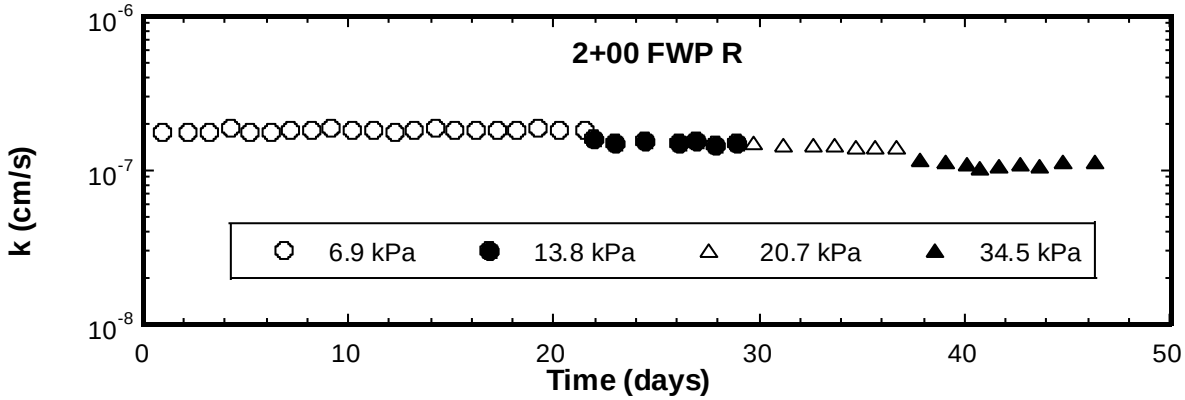
Sample Location:	1+90 (b)	**Final Sample Cross-Sectional Area (cm^2):**	39.65
Depth:	Surface	Final Sample Length (cm):	7.10
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	5.185
Initial MC (%):	30.6	Conversion Factor (burette to cm):	1.144
Final MC (%):	23.1		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
281700	365.2	351.4	337.6	20.7	1.0	0.0	24.4	2.9	5.5	18.9	168.5	155.9	1.28E-07	0.99
177600	366.5	352.8	337.6	21.4	3.4	8.0	16.6	3.6	10.8	13.8	164.5	158.1	1.04E-07	0.99
81000	367.2	353.5	338.3	21.4	3.6	10.8	13.8	3.7	12.2	12.6	158.1	155.1	1.09E-07	1.16
312720	368.6	354.8	339.7	21.4	3.7	12.2	12.6	4.2	17.5	7.8	155.1	143.5	1.15E-07	1.09
214800	369.3	354.8	340.4	21.7	4.2	17.5	7.8	4.3	20.8	4.8	136.5	129.3	1.17E-07	1.09
296880	368.6	355.5	343.1	19.3	4.3	0.0	24.0	4.6	5.9	18.6	154.0	141.1	1.37E-07	1.08
130500	369.3	355.5	342.4	20.3	4.6	5.9	18.6	4.7	8.4	16.2	148.1	142.5	1.38E-07	1.03
86400	368.6	355.5	342.4	19.6	4.7	8.4	16.2	4.8	10.0	14.8	142.5	139.0	1.31E-07	1.13
206700	369.3	354.1	341.7	21.4	4.8	10.0	14.8	4.9	13.6	11.6	132.0	124.2	1.37E-07	1.11
50400	394.8	368.6	352.8	34.1	5.9	9.2	15.3	6.0	10.1	14.5	168.6	166.7	1.07E-07	1.11

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
189000	394.8	368.6	352.8	34.1	6.0	10.1	14.5	6.2	13.5	11.5	166.7	159.4	1.11E-07	1.12
255600	394.8	368.6	353.5	33.8	6.2	13.5	11.5	6.4	17.9	7.5	152.3	142.7	1.19E-07	1.09
218880	394.8	368.6	352.8	34.1	6.4	17.9	7.5	6.6	21.3	4.6	149.7	142.5	1.05E-07	1.16
162000	394.8	368.6	352.8	34.1	6.7	0.0	23.8	6.9	3.0	20.9	188.9	182.2	1.04E-07	1.02
501600	394.1	367.9	352.8	33.8	6.9	3.0	20.9	7.1	12.1	12.9	175.1	155.5	1.10E-07	1.13

Sample Location:	2+00	**Final Sample Cross-Sectional Area (cm^2):**	34.73
Depth:	Surface	Final Sample Length (cm):	8.78
Sample Type:	Remolded flexible wall	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	27.7	Conversion Factor (burette to cm):	1.143
Final MC (%):	20.1		

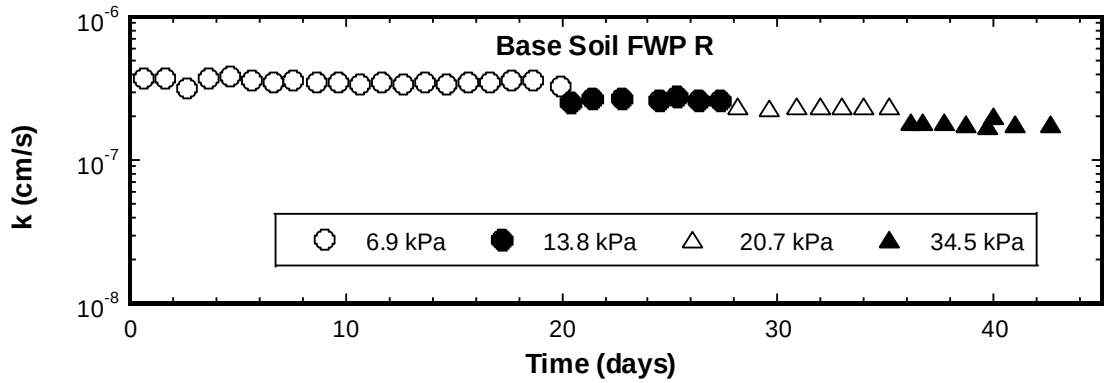


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
84000	34.5	31.0	24.1	6.9	9.5	9.0	16.6	11.2	13.1	12.1	79.0	69.2	**1.75E-07**	0.91
105960	34.5	31.0	24.1	6.9	11.2	13.1	12.1	12.1	17.7	7.3	69.2	58.4	**1.77E-07**	0.96
87240	34.5	31.0	24.1	6.9	12.1	17.7	7.3	13.0	21.1	4.0	58.4	50.8	**1.79E-07**	1.03
88260	34.5	31.0	24.1	6.9	0.2	0.6	24.3	1.3	6.5	18.4	97.4	83.9	**1.87E-07**	1.00
86100	34.5	31.0	24.1	6.9	1.3	6.5	18.4	2.0	11.2	13.7	83.9	73.2	**1.76E-07**	1.00
85440	34.5	31.0	24.1	6.9	2.0	11.2	13.7	2.4	15.3	9.6	73.2	63.8	**1.78E-07**	1.00
87000	34.5	31.0	24.1	6.9	2.4	15.3	9.6	2.8	19.0	5.9	63.8	55.3	**1.81E-07**	1.00
87240	34.5	31.0	24.1	6.9	2.8	19	5.9	3.1	22.2	2.7	55.3	48.0	**1.80E-07**	1.00

78780	34.5	31.0	24.1	6.9	3.1	0.1	24.7	3.4	5.5	19.3	98.4	86.1	**1.89E-07**	1.00
91920	34.5	31.0	24.1	6.9	3.4	5.5	19.3	3.7	10.8	14.0	86.1	74.0	**1.83E-07**	1.00
87360	34.5	31.0	24.1	6.9	3.7	10.8	14	3.9	15.2	9.7	74.0	64.0	**1.83E-07**	1.02
86580	34.5	31.0	24.1	6.9	3.9	15.2	9.7	4.1	18.8	6.0	64.0	55.7	**1.79E-07**	0.97
87600	34.5	31.0	24.1	6.9	4.1	18.8	6.0	4.2	22.1	2.8	55.7	48.2	**1.81E-07**	1.03
84060	34.5	31.0	24.1	6.9	4.2	0.3	24.6	4.4	6.0	18.9	98.1	85.1	**1.88E-07**	1.00
86940	34.5	31.0	24.1	6.9	4.4	6.0	18.9	4.6	10.9	13.9	85.1	73.7	**1.82E-07**	0.98
89520	34.5	31.0	24.1	6.9	4.6	10.9	13.9	4.7	15.3	9.5	73.7	63.7	**1.82E-07**	1.00
84000	34.5	31.0	24.1	6.9	4.7	15.3	9.5	5.0	18.9	5.9	63.7	55.4	**1.83E-07**	1.00
87060	34.5	31.0	24.1	6.9	5.0	18.9	5.9	5.2	22.2	2.8	55.4	48.1	**1.80E-07**	1.06
85440	34.5	31.0	24.1	6.9	5.2	0.2	24.5	5.2	5.9	18.7	98.1	84.9	**1.87E-07**	0.98
86400	34.5	31.0	24.1	6.9	5.2	5.9	18.7	5.3	10.8	13.7	84.9	73.6	**1.83E-07**	0.98
109560	34.5	31.0	24.1	6.9	5.3	10.8	13.7	5.5	16.1	8.5	73.6	61.6	**1.80E-07**	1.02
40020	41.3	31.0	24.1	13.8	8.0	15.2	7.3	9.5	16.0	5.1	61.3	57.8	**1.60E-07**	0.36
87120	41.3	31.0	24.1	13.8	9.5	16	5.1	9.8	18.7	2.1	57.8	51.3	**1.52E-07**	0.90
123060	41.3	31.0	24.1	13.8	9.9	0.1	24.8	10.2	6.9	17.8	98.5	82.8	**1.57E-07**	0.97
143760	41.3	31.0	24.1	13.8	10.2	6.9	17.8	10.5	13.3	11.3	82.8	68.0	**1.51E-07**	0.98
75780	41.3	31.0	24.1	13.8	10.5	13.3	11.3	10.6	16.3	8.3	68.0	61.2	**1.54E-07**	0.98
83340	41.3	31.0	24.1	13.8	10.6	16.3	8.3	10.8	19.1	5.5	61.2	54.8	**1.48E-07**	1.02
86940	41.3	31.0	24.1	13.8	10.8	19.1	5.5	10.9	21.8	2.9	54.8	48.7	**1.50E-07**	1.04
70440	50.3	35.1	24.1	20.7	13.6	0.4	24.7	14.7	5.5	18.6	140.3	127.5	**1.50E-07**	0.83
123240	50.3	35.1	24.1	20.7	14.7	5.45	18.6	14.9	13.7	10.2	127.5	108.5	**1.45E-07**	0.98
130560	50.3	35.1	24.1	20.7	14.9	13.7	10.2	15.0	21.2	2.8	108.5	91.5	**1.45E-07**	1.01
92040	50.3	35.1	24.1	20.7	15	0.3	24.9	15.3	7.3	17.8	140.6	124.5	**1.47E-07**	0.99
84480	50.3	35.1	24.1	20.7	15.3	7.3	17.8	15.4	12.9	12.2	124.5	111.7	**1.42E-07**	1.00
84720	50.3	35.1	24.1	20.7	15.4	12.9	12.2	15.5	17.9	7.1	111.7	100.1	**1.43E-07**	0.98
87600	50.3	35.1	24.1	20.7	15.5	17.9	7.1	15.6	22.6	2.5	100.1	89.5	**1.42E-07**	1.02

99120	64.1	35.1	24.1	34.5	18.8	0.8	24.8	21.2	5.8	17.6	139.9	126.0	**1.17E-07**	0.69
112440	64.1	35.1	24.1	34.5	21.2	5.8	17.6	21.5	11.8	11.5	126.0	112.1	**1.15E-07**	0.98
84360	64.1	35.1	24.1	34.5	21.5	11.8	11.5	21.5	15.7	7.5	112.1	103.1	**1.10E-07**	0.98
51540	64.1	35.1	24.1	34.5	21.5	15.7	7.5	21.6	17.9	5.4	103.1	98.2	**1.05E-07**	1.05
84300	64.1	35.1	24.1	34.5	21.6	17.9	5.4	21.8	21.3	2.0	98.2	90.4	**1.08E-07**	1.00
91560	64.1	35.1	24.1	34.5	21.9	0.1	25.0	22.0	5.5	19.5	141.0	128.5	**1.12E-07**	0.98
80520	64.1	35.1	24.1	34.5	22	5.5	19.5	22.1	9.8	15.3	128.5	118.8	**1.08E-07**	1.02
94440	64.1	35.1	24.1	34.5	22	10.4	14.6	22.1	15.1	9.9	117.3	106.5	**1.13E-07**	0.99
141060	64.1	35.1	24.1	34.5	22.1	15.1	9.85	22.4	21.5	3.6	106.5	92.0	**1.15E-07**	1.02

Sample Location:	Base Soil (a)	**Final Sample Cross-Sectional Area (cm^2):**	34.07
Depth:	Surface	Final Sample Length (cm):	7.67
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	41.0	Conversion Factor (burette to cm):	1.143
Final MC (%):	29.4		

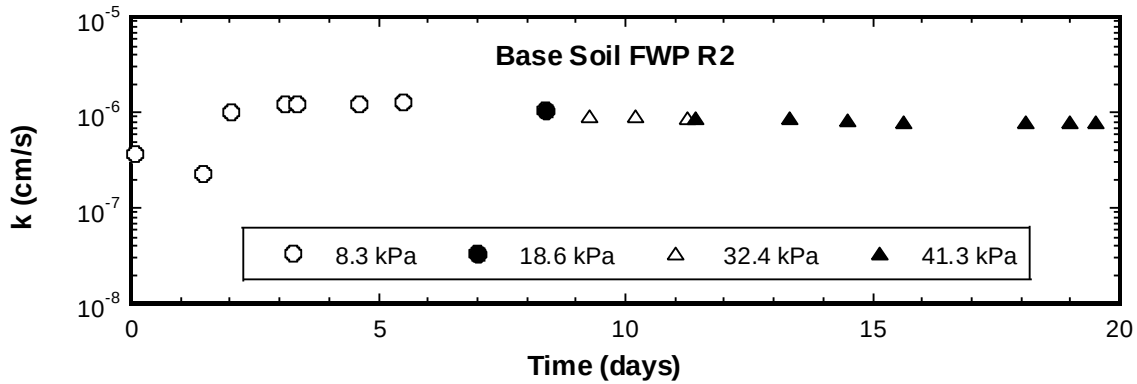


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
54120	34.5	31.0	24.1	6.9	0.4	1.5	24.5	5.0	7.2	14.5	96.6	78.7	**3.75E-07**	0.57
87300	34.5	31.0	24.1	6.9	5	7.2	14.5	5.6	16.8	4.7	78.7	56.5	**3.75E-07**	0.98
88140	34.5	31.0	24.1	6.9	5.6	16.8	4.7	7.2	24.0	-0.3	56.5	42.5	**3.18E-07**	1.44
86160	34.5	31.0	24.1	6.9	7.2	0.2	24.8	8.8	12.2	12.6	98.4	70.8	**3.78E-07**	0.98
85320	34.5	31.0	24.1	6.9	8.8	12.2	12.6	9.9	20.8	3.9	70.8	51.0	**3.79E-07**	0.99
87120	34.5	31.0	24.1	6.9	9.9	0.2	24.6	10.7	11.9	12.7	98.2	71.2	**3.64E-07**	0.98
87180	34.5	31.0	24.1	6.9	10.7	11.9	12.7	11.3	20.2	4.4	71.2	52.2	**3.51E-07**	1.00
78900	34.5	31.0	24.1	6.9	11.3	0.2	24.2	11.8	10.9	13.4	97.7	73.2	**3.62E-07**	0.99
91800	34.5	31.0	24.1	6.9	11.8	10.9	13.4	12.4	19.7	4.5	73.2	52.9	**3.48E-07**	0.99
87420	34.5	31.0	24.1	6.9	1.2	0.3	24.4	1.7	11.6	12.8	97.9	71.7	**3.52E-07**	0.97

86520	34.5	31.0	24.1	6.9	1.7	11.6	12.8	1.9	19.7	4.6	71.7	53.0	**3.43E-07**	0.99
87660	34.5	31.0	24.1	6.9	1.9	0	24.3	2.2	11.3	12.6	98.1	71.8	**3.51E-07**	0.97
84060	34.5	31.0	24.1	6.9	2.2	11.3	12.6	2.4	19.1	4.8	71.8	54.0	**3.35E-07**	1.00
86940	34.5	31.0	24.1	6.9	2.4	0.1	24.4	2.6	11.3	12.9	98.1	72.1	**3.49E-07**	0.97
89460	34.5	31.0	24.1	6.9	2.6	11.3	12.9	2.9	19.7	4.5	72.1	52.9	**3.42E-07**	1.00
84060	34.5	31.0	24.1	6.9	2.9	0.2	24.5	3.0	11.2	13.4	98.1	72.8	**3.50E-07**	0.99
87000	34.5	31.0	24.1	6.9	3	11.2	13.4	3.3	19.7	4.9	72.8	53.4	**3.52E-07**	1.00
85500	34.5	31.0	24.1	6.9	3.3	0.3	24.7	3.4	11.7	13.2	98.2	72.0	**3.58E-07**	0.99
86340	34.5	31.0	24.1	6.9	3.4	11.7	13.2	3.5	20.0	4.7	72.0	52.8	**3.55E-07**	0.98
109560	34.5	31.0	24.1	6.9	3.5	0.4	24.7	3.5	13.4	11.4	98.1	68.0	**3.30E-07**	0.98
39900	41.3	31.0	24.1	13.8	7.5	12	9.2	8.3	14.5	6.0	67.1	60.6	**2.53E-07**	0.78
87180	41.3	31.0	24.1	13.8	8.3	14.5	6	8.8	20.0	0.2	60.6	47.7	**2.71E-07**	0.95
123120	41.3	31.0	24.1	13.8	8.8	0.2	24.8	9.2	12.3	12.3	98.4	70.3	**2.70E-07**	0.97
143820	41.3	31.0	24.1	13.8	9.2	12.3	12.3	9.5	22.0	2.5	70.3	48.0	**2.62E-07**	0.99
75780	41.3	31.0	24.1	13.8	9.5	0	25.1	9.7	8.2	16.8	99.0	80.1	**2.75E-07**	0.99
83280	41.3	31.0	24.1	13.8	9.7	8.2	16.8	9.9	15.2	9.7	80.1	64.0	**2.66E-07**	0.99
86880	41.3	31.0	24.1	13.8	9.9	15.2	9.7	10.0	21.0	4.0	64.0	50.9	**2.61E-07**	1.02
70440	50.3	35.1	24.1	20.7	13.2	0.4	24.9	13.9	9.8	15.0	140.5	118.4	**2.39E-07**	0.95
123240	50.3	35.1	24.1	20.7	13.9	9.8	15	14.2	22.7	1.7	118.4	88.5	**2.34E-07**	0.97
117540	50.3	35.1	24.1	20.7	14.3	0.3	24.8	14.5	15.4	9.6	140.5	105.9	**2.38E-07**	0.99
91980	50.3	35.1	24.1	20.7	14.5	15.4	9.6	14.7	24.5	0.3	105.9	84.8	**2.38E-07**	0.98
84540	50.3	35.1	24.1	20.7	14.9	0.1	25.1	15.1	11.4	13.6	141.1	115.0	**2.39E-07**	0.98
84720	50.3	35.1	24.1	20.7	15.1	11.4	13.6	15.1	20.6	4.3	115.0	93.9	**2.37E-07**	0.99
103920	50.3	35.1	24.1	20.7	15.3	0.3	24.7	15.4	13.7	11.2	140.4	109.6	**2.35E-07**	0.99
84420	64.1	35.1	24.1	34.5	5.7	0.4	24.7	6.0	9.2	15.5	140.3	119.7	**1.86E-07**	0.96
51540	50.3	35.1	24.1	20.7	6	9.2	15.5	6.2	13.9	10.7	119.7	108.8	**1.82E-07**	0.98
85200	50.3	35.1	24.1	20.7	6.2	13.9	10.7	6.5	20.8	3.7	108.8	92.9	**1.83E-07**	0.99

90660	64.1	35.1	24.1	34.5	6.5	0.3	24.9	6.7	9.5	15.4	140.6	119.2	**1.80E-07**	0.97
80400	64.1	35.1	24.1	34.5	6.7	9.5	15.4	6.9	16.1	8.3	119.2	103.6	**1.73E-07**	0.93
27780	64.1	35.1	24.1	34.5	6.9	16.1	8.3	6.9	18.9	6.0	103.6	97.8	**2.04E-07**	1.20
87660	64.1	35.1	24.1	34.5	6.9	0.2	25.1	7.1	9.1	15.9	141.0	120.3	**1.79E-07**	0.97
141060	64.1	35.1	24.1	34.5	7.1	9.1	15.9	7.5	20.9	4.0	120.3	93.2	**1.79E-07**	0.99

Sample Location:	Base Soil (b)	**Final Sample Cross-Sectional Area (cm^2):**	35.26
Depth:	Surface	Final Sample Length (cm):	6.70
Sample Type:	Remolded FWP	Burette Cross-Sectional Area (cm^2):	4.56*, 0.877
Initial MC (%):	27.6	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.1		

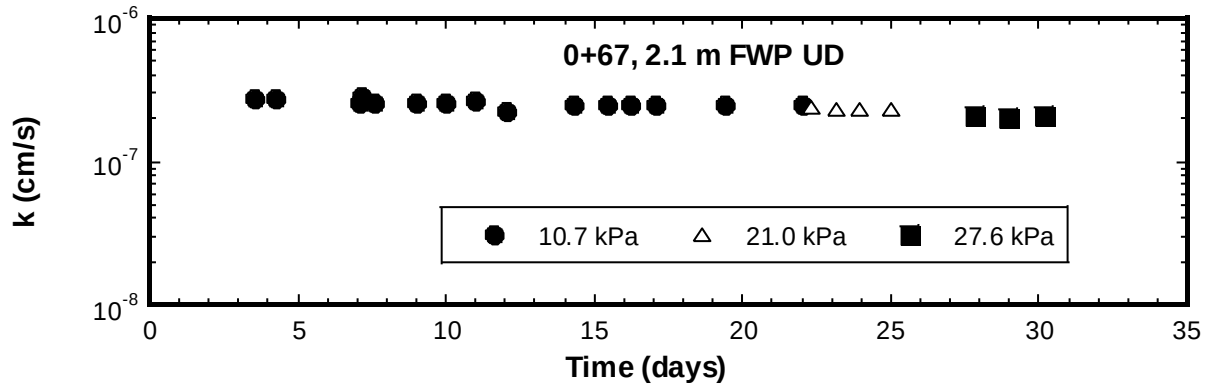


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
6000	37.9	31.0	27.6	8.6	0.6	0.4	23.6	2.3	1.2	22.9	61.7	60.0	**3.71E-07***	1.14
120840	37.9	31.7	27.6	8.3	2.3	1.2	22.9	6.3	10.2	14.9	67.0	47.6	**2.24E-07***	1.13
49140	37.9	31.7	27.6	8.3	6.3	10.2	14.9	7.7	13.0	12.9	47.6	42.1	**1.02E-06***	1.40
93240	37.9	31.7	27.6	8.3	7.7	13	12.9	10.1	17.4	8.3	42.1	31.8	**1.23E-06***	0.96
22860	37.9	31.7	27.6	8.3	10.1	17.4	8.3	10.6	18.3	7.4	31.8	29.7	**1.20E-06***	1.00
106680	37.9	31.7	27.6	8.3	11.6	7.3	22.7	13.5	14.6	15.9	59.8	43.7	**1.21E-06***	1.07
76320	37.9	31.7	27.6	8.3	13.5	14.6	15.9	14.3	18.5	12.1	43.7	34.9	**1.28E-06***	1.03
249420	48.2	31.7	27.6	18.6	4.6	0.4	21.3	7.2	13.5	7.9	66.1	35.8	**1.07E-06**	0.98
76800	62.0	31.7	27.6	32.4	10	1	23.6	11.8	4.8	18.7	68.0	58.1	**8.92E-07**	0.78
80880	62.0	31.7	27.6	32.4	11.8	4.8	18.7	12.4	8.7	14.7	58.1	49.1	**9.05E-07**	0.98

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
89640	62.0	31.7	27.6	32.4	12.4	8.7	14.7	13.1	12.2	11.1	49.1	40.9	**8.74E-07**	0.97
14580	75.8	41.3	27.6	41.3	15.4	1.6	22.9	15.5	3.6	20.8	165.0	160.3	**8.56E-07**	0.95
163920	75.8	41.3	27.2	41.5	15.5	3.6	20.8	16.5	22.7	0.4	163.9	118.7	**8.52E-07**	0.94
103560	75.8	41.3	27.6	41.3	16.6	1.2	24.2	17.0	14.0	11.2	167.0	137.5	**8.13E-07**	0.98
95940	75.8	41.3	27.6	41.3	17	14	11.2	17.5	23.3	1.3	137.5	115.5	**7.86E-07**	0.94
214500	75.8	41.3	27.6	41.3	1.5	0.4	24.1	2.7	24.0	0.0	167.8	113.2	**7.94E-07**	0.98
76860	75.8	41.3	27.6	41.3	2.7	0.6	24.3	3.1	10.3	14.4	167.8	145.4	**8.08E-07**	0.98
46080	75.8	41.3	27.6	41.3	3.1	10.3	14.4	3.2	15.5	9.2	145.4	133.5	**8.02E-07**	1.00

Undisturbed Samples

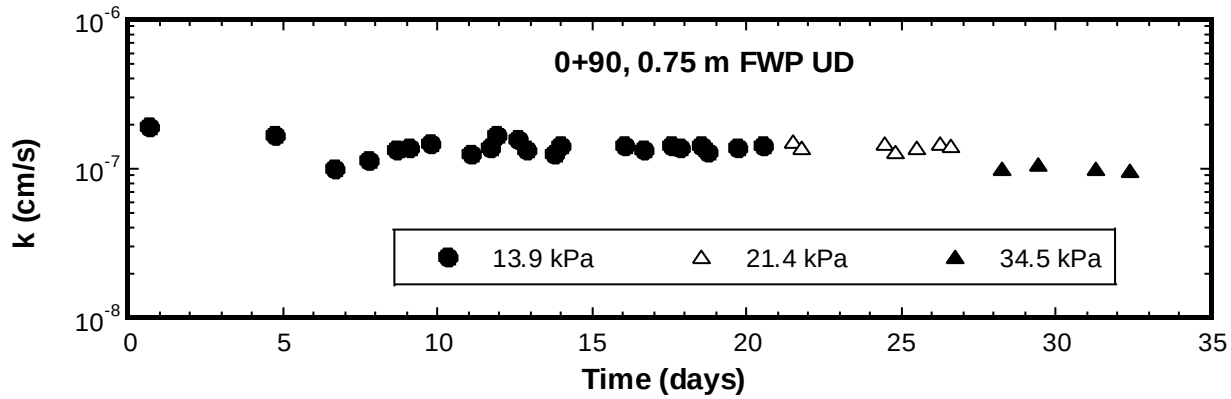
Sample Location:	0+67	**Final Sample Cross-Sectional Area (cm^2):**	39.59
Depth:	2.1 m	Final Sample Length (cm):	7.10
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	25.4	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.1		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
4740	55.8	48.9	41.3	10.7	11.5	4.6	20	11.7	4.9	19.7	95.0	94.3	**2.64E-07**	1.00
61500	55.8	48.9	41.3	10.7	11.7	4.9	20	12	8.4	16.1	94.6	86.2	**2.63E-07**	0.90
152580	55.8	48.9	41.3	10.7	0.7	1.1	24.2	12.8	16.1	8.3	103.8	68.5	**4.71E-07**	0.94
87540	55.8	48.9	41.3	10.7	12.8	16.1	8.3	13.2	19.7	4.7	68.5	60.2	**2.53E-07**	1.00
9120	55.8	48.9	41.3	10.7	13.2	1.1	23	13.3	1.8	22.4	102.4	100.9	**2.77E-07**	1.17
37500	55.8	48.9	41.3	10.7	13.3	1.8	22.4	13.4	4.1	20	100.9	95.5	**2.52E-07**	0.96
121860	55.8	48.9	41.3	10.7	13.4	4.1	20	13.9	10.9	13.2	95.5	80.0	**2.52E-07**	1.00
81780	55.8	48.9	41.3	10.7	13.9	10.9	13.2	14.3	14.8	9.4	80.0	71.2	**2.46E-07**	1.03

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
89820	55.8	48.9	41.3	10.7	14.3	14.8	9.4	14.7	18.9	5.8	71.2	62.4	**2.54E-07**	1.14
90240	55.8	48.9	41.3	10.7	14.7	18.9	5.8	14.9	21.6	2.6	62.4	55.7	**2.19E-07**	0.84
195360	55.8	48.9	41.3	10.7	9.1	1.5	22.7	9.6	12.2	12	101.6	77.1	**2.43E-07**	1.00
101340	55.8	48.9	41.3	10.7	9.6	12.2	12	9.6	16.6	7.6	77.1	67.1	**2.38E-07**	1.00
64200	55.8	48.9	41.3	10.7	9.6	16.6	7.6	9.8	19.1	5.1	67.1	61.4	**2.39E-07**	1.00
74340	55.8	48.9	41.3	10.7	9.8	0.5	23	10	5	18.6	103.1	92.9	**2.41E-07**	1.02
200040	55.8	48.9	41.3	10.7	10	5	18.6	10.4	15	8.6	92.9	70.1	**2.44E-07**	1.00
225540	55.8	48.9	41.3	10.7	10.4	15	8.6	10.7	23.4	0.2	70.1	50.9	**2.45E-07**	1.00
25500	69.6	55.8	41.3	21.0	2.1	0	24.1	4.2	1.5	20.4	175.3	169.3	**2.34E-07**	0.41
74520	69.6	55.8	41.3	21.0	4.2	1.5	20.4	4.6	8.1	13.4	169.3	153.8	**2.23E-07**	0.94
66540	69.6	55.8	41.3	21.0	4.6	8.1	13.4	4.8	13.6	7.8	153.8	141.1	**2.23E-07**	0.98
95760	69.6	55.8	41.3	21.0	4.8	13.6	7.8	5.1	20.8	0.4	141.1	124.4	**2.27E-07**	0.97
243060	76.5	55.8	42.0	27.6	5.5	0.1	24.2	7.5	17.6	4.9	168.2	126.2	**2.04E-07**	0.91
96660	76.5	55.8	42.0	27.6	7.5	17.6	4.9	7.7	23.3	-0.8	126.2	113.1	**1.95E-07**	1.00
101880	76.5	55.1	42.0	27.9	7.7	0.1	24.2	8.8	7.6	15.8	161.2	143.0	**2.03E-07**	0.89

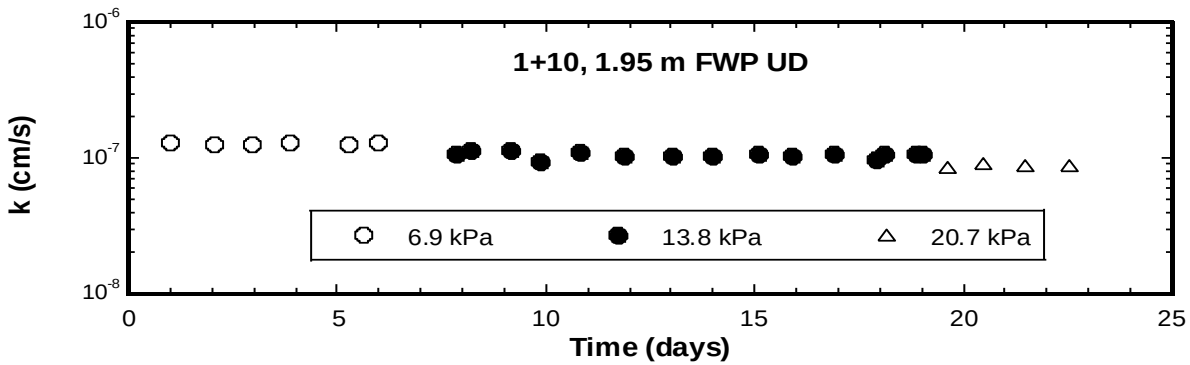
Sample Location:	0+90	**Final Sample Cross-Sectional Area (cm^2):**	36.32
Depth:	0.75 m	Final Sample Length (cm):	7.30
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	14.9	Conversion Factor (burette to cm):	1.143
Final MC (%):	22.4		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
61080	55.8	46.9	40.0	12.4	8.7	0.2	23.6	12.1	2.3	19.7	97.1	90.2	**1.93E-07**	0.54
346980	55.8	46.9	40.0	12.4	12.1	2.3	19.7	23.2	11.1	4.6	90.2	62.9	**1.67E-07**	0.58
105000	55.8	46.9	40.0	12.4	1.9	0.7	23.7	5.9	2.1	19.7	96.6	90.5	**1.01E-07**	0.35
70800	55.8	46.9	40.0	12.4	6.7	2.4	17.8	9.2	3.2	14.8	87.9	83.6	**1.15E-07**	0.27
80400	55.8	46.9	40.0	12.4	9.2	3.2	14.8	11.0	4.7	11.6	83.6	78.2	**1.33E-07**	0.47
34020	55.8	46.9	40.0	12.4	11	4.7	11.6	11.5	5.4	10.3	78.2	75.9	**1.40E-07**	0.54
61200	55.8	46.9	40.0	12.4	11.5	5.4	10.3	12.6	6.7	8.0	75.9	71.8	**1.46E-07**	0.57
109320	55.8	46.9	40.0	12.4	12.6	6.7	8	15.3	8.0	4.2	71.8	66.0	**1.25E-07**	0.34
55140	55.8	46.9	40.0	12.4	15.3	8	4.2	16.4	8.9	2.5	66.0	63.0	**1.37E-07**	0.51

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
20280	55.8	46.9	40.0	12.4	16.4	8.9	2.45	16.7	9.4	1.8	63.0	61.7	**1.67E-07**	0.77
59700	55.8	46.9	40.0	12.4	16.7	9.4	1.8	17.2	10.8	0.1	61.7	58.1	**1.59E-07**	0.82
21000	55.8	46.9	40.0	12.4	0.6	0.5	24.9	1.2	1.3	24.2	98.2	96.5	**1.35E-07**	1.14
19020	55.8	46.9	40.0	12.4	6.1	7.4	21.7	6.5	7.7	20.9	86.7	85.4	**1.24E-07**	0.37
16500	55.8	46.9	40.0	12.4	6.5	7.7	20.9	6.9	8.3	20.4	85.4	84.2	**1.45E-07**	1.20
128820	55.1	46.2	37.9	13.1	7.2	8.2	20.4	8.2	12.3	15.1	98.4	87.6	**1.44E-07**	0.77
54780	55.1	46.2	37.2	13.4	8.2	12.3	15.1	8.5	14.0	13.1	94.6	90.4	**1.34E-07**	0.85
76080	55.1	46.2	37.2	13.4	8.5	14	13.1	9.0	16.5	10.4	90.4	84.5	**1.44E-07**	0.93
25200	55.1	46.2	36.5	13.8	9	16.5	10.4	9.2	17.3	9.5	91.5	89.6	**1.37E-07**	0.89
60180	55.1	45.5	35.8	14.5	9.2	17.3	9.5	9.5	19.2	7.3	89.6	84.9	**1.44E-07**	0.86
20460	55.1	45.5	35.8	14.5	9.5	19.2	7.3	9.8	19.7	6.6	84.9	83.5	**1.28E-07**	0.71
78540	55.1	44.8	35.1	15.2	9.8	19.7	6.6	10.2	22.0	4.1	83.5	78.0	**1.39E-07**	0.92
73020	55.1	44.8	35.1	15.2	10.2	22	4.1	10.6	24.1	1.9	78.0	73.1	**1.43E-07**	0.95
65160	67.5	54.4	41.3	19.6	11.3	0.6	23.5	11.9	4.5	18.9	159.8	150.1	**1.55E-07**	0.85
23340	67.5	54.4	41.3	19.6	11.9	4.5	18.9	12.1	6.1	17.9	150.1	147.1	**1.38E-07**	1.60
233160	68.9	54.4	40.7	21.4	12.1	6.1	17.9	13.6	18.5	4.0	154.2	124.1	**1.50E-07**	0.89
28200	68.9	54.4	40.0	21.7	13.6	18.5	4	13.7	19.2	2.1	131.1	128.2	**1.31E-07**	0.37
60660	68.9	54.4	40.7	21.4	13.7	19.2	2.1	14.1	22.3	-0.2	121.1	115.0	**1.39E-07**	1.35
64140	68.9	54.4	40.7	21.4	14.1	0.6	23.6	14.6	4.7	19.2	167.0	157.3	**1.50E-07**	0.93
28620	68.9	54.4	40.7	21.4	14.6	4.7	19.2	14.7	6.4	17.4	157.3	153.3	**1.45E-07**	0.94
82620	82.7	55.1	40.7	34.8	5.2	1.23	20.6	5.8	5.1	17.0	169.9	161.3	**1.00E-07**	1.08
102660	82.7	55.1	40.7	34.8	5.8	5.1	17	6.6	9.6	12.3	161.3	150.8	**1.06E-07**	0.96
158040	82.7	55.1	40.7	34.8	6.6	9.6	12.3	8.2	16.0	6.3	150.8	136.6	**1.00E-07**	1.07
97080	82.7	55.1	40.7	34.8	8.2	16	6.3	8.4	19.1	2.7	136.6	129.0	**9.56E-08**	0.86

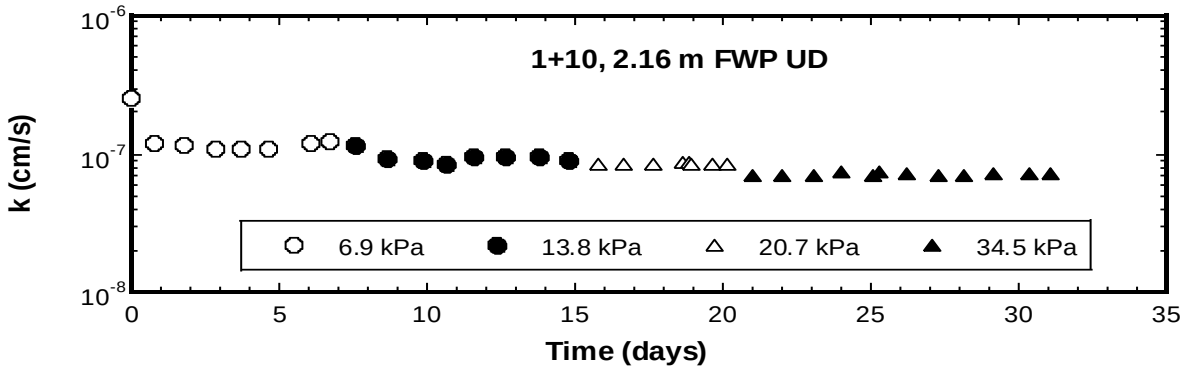
Sample Location:	1+10 (a)	**Final Sample Cross-Sectional Area (cm^2):**	37.39
Depth:	1.95 m	Final Sample Length (cm):	15.00
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	23.5	Conversion Factor (burette to cm):	1.143
Final MC (%):	--		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
87600	34.5	31.0	24.1	6.9	1.2	0.4	24.0	4.8	1.8	20.1	97.3	91.3	**1.29E-07**	0.36
92340	34.5	31.0	24.1	6.9	4.8	1.8	20.1	6.0	4.1	17.3	91.3	85.4	**1.26E-07**	0.82
78660	34.5	31.0	24.1	6.9	6	4.1	17.3	6.8	6.1	15.2	85.4	80.7	**1.26E-07**	0.95
75840	34.5	31.0	24.1	6.9	6.8	6.1	15.2	7.3	8.0	13.3	80.7	76.4	**1.28E-07**	1.00
123120	34.5	31.0	24.1	6.9	7.3	8	13.3	8.0	10.8	10.5	76.4	70.0	**1.25E-07**	1.00
58200	34.5	31.0	24.1	6.9	8	10.8	10.5	8.4	12.1	9.2	70.0	67.0	**1.31E-07**	1.00
75060	41.3	31.0	24.1	13.8	10.7	11	8.5	13.4	11.0	6.2	67.5	64.9	**9.31E-08**	0.00
88680	41.3	31.0	24.1	13.8	13.4	10.8	6.2	14.1	12.1	4.5	65.1	61.7	**1.07E-07**	0.76
28560	41.3	31.0	24.1	13.8	14.1	12.1	4.5	14.2	12.5	3.9	61.7	60.5	**1.15E-07**	0.67
80820	41.3	31.0	24.1	13.8	0.1	0.4	24.4	1.2	2.2	21.8	97.8	92.7	**1.15E-07**	0.69

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
63360	41.3	31.0	24.1	13.8	1.2	2.2	21.8	1.6	3.5	20.4	92.7	89.7	**9.40E-08**	0.93
82320	41.3	31.0	24.1	13.8	1.6	3.5	20.4	2.0	5.4	18.4	89.7	85.2	**1.09E-07**	0.95
92040	41.3	31.0	24.1	13.8	2.0	5.4	18.4	2.3	7.3	16.3	85.2	80.6	**1.05E-07**	0.90
100500	41.3	31.0	24.1	13.8	2.3	7.3	16.3	2.5	9.2	14.2	80.6	76.1	**1.02E-07**	0.90
79620	41.3	31.0	24.1	13.8	2.5	9.2	14.2	3.0	10.7	12.7	76.1	72.6	**1.02E-07**	1.00
95520	41.3	31.0	24.1	13.8	3.0	10.7	12.7	3.1	12.5	10.9	72.6	68.5	**1.07E-07**	1.00
72000	41.3	31.0	24.1	13.8	3.1	12.5	10.9	3.3	13.7	9.6	68.5	65.7	**1.04E-07**	0.92
87720	41.3	31.0	24.1	13.8	3.3	13.7	9.6	3.6	15.1	8.0	65.7	62.2	**1.08E-07**	0.88
85560	41.3	31.0	24.1	13.8	3.6	15.1	8.0	3.7	16.3	6.7	62.2	59.4	**9.67E-08**	0.92
18900	41.3	31.0	24.1	13.8	3.7	16.3	6.7	3.8	16.6	6.4	59.4	58.7	**1.08E-07**	1.00
61800	41.3	31.0	24.1	13.8	1.9	1.6	24.5	2.3	3.0	22.8	96.5	93.0	**1.06E-07**	0.82
12120	41.3	31.0	24.1	13.8	2.3	3.0	22.8	2.3	3.3	22.5	93.0	92.3	**1.07E-07**	1.00
53580	50.3	35.1	24.1	20.7	5.1	3.4	20.3	6.0	4.5	18.4	131.9	128.4	**8.65E-08**	0.58
76080	50.3	35.1	24.1	20.7	6.0	4.5	18.4	6.5	6.5	16.0	128.4	123.4	**9.24E-08**	0.83
84780	50.3	35.1	24.1	20.7	6.5	6.5	16	6.9	8.6	13.6	123.4	118.3	**8.84E-08**	0.88
91620	50.3	35.1	24.1	20.7	6.9	8.6	13.6	7.2	10.9	11.2	118.3	112.9	**8.93E-08**	0.96

Sample Location:	1+10 (b)	**Final Sample Cross-Sectional Area (cm^2):**	38.48
Depth:	2.16 m	Final Sample Length (cm):	7.90
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	23.5	Conversion Factor (burette to cm):	1.143
Final MC (%):	19.5		

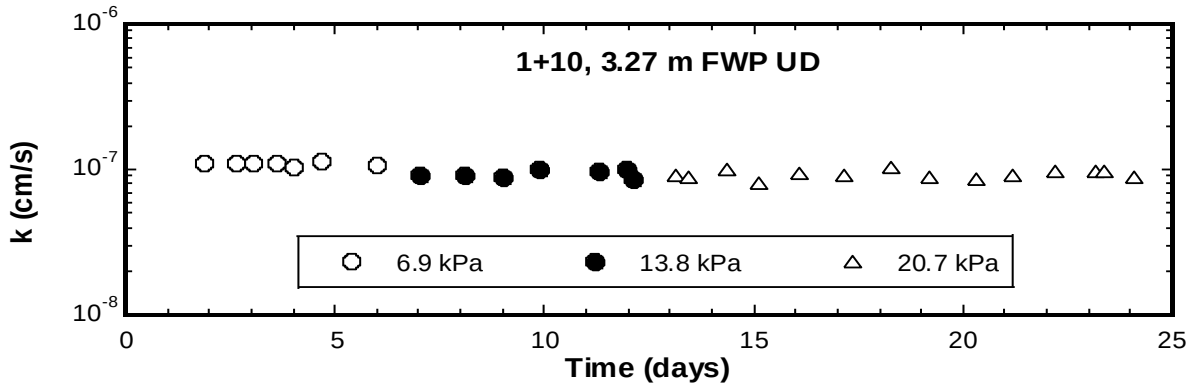


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
1260	34.5	31.0	24.1	6.9	1.3	0.7	24.1	2.1	0.6	23.7	97.1	96.7	**2.53E-07**	0.25
63600	34.5	31.0	24.1	6.9	2.1	0.6	23.7	11.4	0.8	17.1	96.7	89.0	**1.19E-07**	0.03
87600	34.5	31.0	24.1	6.9	1.0	0.8	24.2	2.9	4.9	19.4	97.1	86.9	**1.14E-07**	0.85
92340	34.5	31.0	24.1	6.9	2.9	4.9	19.4	4.0	9.0	15.4	86.9	77.7	**1.10E-07**	1.03
78660	34.5	31.0	24.1	6.9	4.0	9	15.4	4.4	12.1	12.4	77.7	70.7	**1.08E-07**	1.03
74520	34.5	31.0	24.1	6.9	4.4	12.1	12.4	4.7	14.9	9.8	70.7	64.5	**1.10E-07**	1.08
124380	34.5	31.0	24.1	6.9	4.7	14.9	9.8	5.1	19.2	5.5	64.5	54.7	**1.20E-07**	1.00
58320	34.5	31.0	24.1	6.9	5.1	19.2	5.5	5.4	21.1	3.7	54.7	50.5	**1.24E-07**	1.06
75300	41.3	31.0	24.1	13.8	7.0	20.5	2.8	8.3	22.1	0.3	50.1	45.4	**1.16E-07**	0.64
88560	41.3	31.0	24.1	13.8	0.4	0.5	24.1	2.1	4.0	20.0	97.3	88.6	**9.39E-08**	0.85

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
109260	41.3	31.0	24.1	13.8	2.1	4	20	2.6	8.0	15.9	88.6	79.4	**8.98E-08**	0.98
63360	41.3	31.0	24.1	13.8	2.6	8	15.9	3.0	10.0	13.8	79.4	74.7	**8.54E-08**	0.95
82200	41.3	31.0	24.1	13.8	3.0	10	13.8	3.2	12.8	11.0	74.7	68.3	**9.69E-08**	1.00
92040	41.3	31.0	24.1	13.8	3.2	12.8	11	3.4	15.5	8.1	68.3	61.9	**9.51E-08**	0.93
100620	41.3	31.0	24.1	13.8	3.4	15.5	8.1	3.6	18.1	5.2	61.9	55.6	**9.47E-08**	0.90
82560	41.3	31.0	24.1	13.8	3.6	18.1	5.2	3.9	20.1	3.3	55.6	51.1	**9.00E-08**	1.05
7500	50.3	35.1	24.1	20.7	1.0	3.8	24.7	2.0	3.9	23.6	136.4	135.1	**1.20E-07**	0.09
85080	50.3	35.1	24.1	20.7	2.0	3.9	23.6	3.2	8.0	18.4	135.1	124.4	**8.57E-08**	0.79
72000	50.3	35.1	24.1	20.7	3.2	8.0	18.4	3.5	11.5	14.7	124.4	116.2	**8.45E-08**	0.95
87780	50.3	35.1	24.1	20.7	3.5	11.5	14.7	3.8	15.5	10.5	116.2	106.8	**8.52E-08**	0.95
85500	50.3	35.1	24.1	20.7	3.8	15.5	10.5	4.1	19.1	6.7	106.8	98.4	**8.58E-08**	0.95
18900	50.3	35.1	24.1	20.7	4.1	19.1	6.7	4.1	19.9	5.9	98.4	96.5	**8.83E-08**	1.00
4440	50.3	37.2	24.1	19.6	4.3	0.4	24.6	4.3	0.6	24.2	161.3	160.6	**8.53E-08**	0.50
59280	50.3	37.2	24.1	19.6	4.3	0.6	24.2	4.5	4.5	20.3	160.6	151.7	**8.57E-08**	1.00
45300	50.3	35.8	24.1	20.3	4.5	4.5	20.3	4.7	7.0	17.7	137.6	131.8	**8.49E-08**	0.96
76200	64.1	35.1	24.1	34.5	0.8	0.3	24.6	1.3	3.6	20.8	140.3	132.2	**6.95E-08**	0.87
84900	64.1	35.1	24.1	34.5	1.3	3.6	20.8	1.6	7.2	16.9	132.2	123.6	**7.02E-08**	0.92
91620	64.1	35.1	24.1	34.5	1.6	7.2	16.9	1.9	10.9	13.1	123.6	115.1	**6.97E-08**	0.97
79620	64.1	35.1	24.1	34.5	1.9	10.9	13.1	2.2	14.1	9.8	115.1	107.6	**7.45E-08**	0.97
93300	64.1	35.1	24.1	34.5	2.2	14.1	9.8	2.4	17.4	6.4	107.6	100.0	**7.03E-08**	0.97
21960	64.1	35.1	24.1	34.5	2.4	17.4	6.4	2.4	18.1	5.5	100.0	98.1	**7.48E-08**	0.78
77220	64.1	35.1	24.1	34.5	2.5	0.2	24.6	2.7	3.8	20.7	140.4	131.9	**7.25E-08**	0.92
88860	64.1	35.1	24.1	34.5	2.7	3.8	20.7	2.9	7.6	16.8	131.9	123.1	**6.91E-08**	0.97
80220	64.1	35.1	24.1	34.5	2.9	7.6	16.8	3.1	10.9	13.5	123.1	115.5	**7.01E-08**	1.00
84120	64.1	35.1	24.1	34.5	3.1	10.9	13.5	3.2	14.1	10.0	115.5	107.9	**7.25E-08**	0.91

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
103500	64.1	35.1	24.1	34.5	3.2	14.1	10.0	3.5	17.9	6.2	107.9	99.2	**7.21E-08**	1.00
59640	64.08	35.1	24.1	34.5	3.5	17.9	6.2	3.6	19.9	4.1	99.2	94.5	**7.22E-08**	0.95

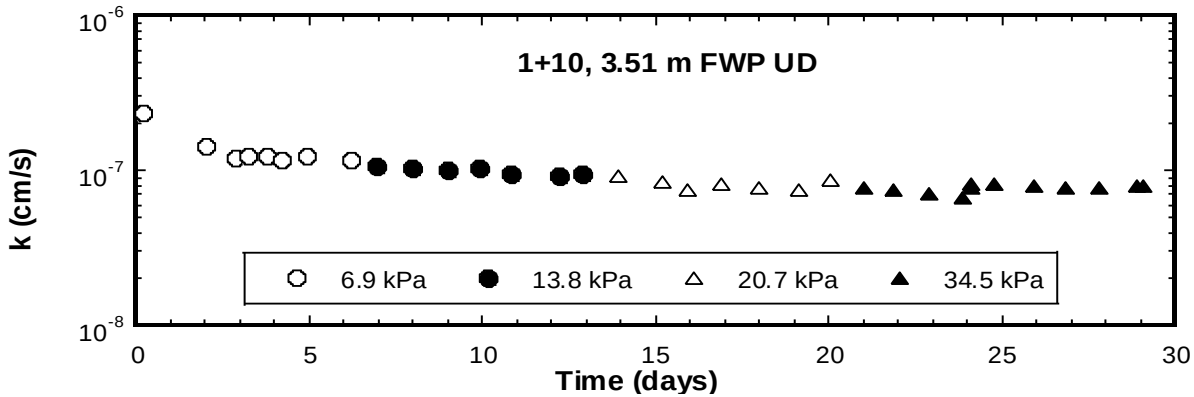
Sample Location:	1+10 (c)	**Final Sample Cross-Sectional Area (cm^2):**	43.26
Depth:	3.27 m	Final Sample Length (cm):	12.10
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	25.7	Conversion Factor (burette to cm):	1.143
Final MC (%):	19.7		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
160380	34.5	31.0	24.1	6.9	3.1	0.8	22.5	6.8	5.2	17.6	95.1	84.5	**1.11E-07**	0.90
68520	34.5	31.0	24.1	6.9	6.8	5.2	17.6	7.6	7.1	15.9	84.5	80.4	**1.09E-07**	1.12
33060	34.5	31.0	24.1	6.9	7.6	7.1	15.9	7.9	8.0	15.1	80.4	78.5	**1.11E-07**	1.13
48660	34.5	31.0	24.1	6.9	7.9	8.0	15.1	8.3	9.2	13.9	78.5	75.7	**1.10E-07**	1.00
35880	34.5	31.0	24.1	6.9	8.3	9.2	13.9	8.5	10.0	13.1	75.7	73.9	**1.02E-07**	1.00
59760	34.5	31.0	24.1	6.9	8.5	10.0	13.1	8.9	11.5	11.7	73.9	70.6	**1.15E-07**	1.07
111900	34.5	31.0	24.1	6.9	8.9	11.5	11.7	9.4	14.0	9.4	70.6	65.1	**1.08E-07**	1.09
87600	41.3	31.0	24.1	13.8	7.7	0.6	24.2	9.0	2.3	21.5	97.3	92.3	**9.07E-08**	0.63
92280	41.3	31.0	24.1	13.8	9.0	2.3	21.5	9.7	4.4	19.2	92.3	87.3	**9.10E-08**	0.91
78720	41.3	31.0	24.1	13.8	9.7	4.4	19.2	10.0	6.1	17.4	87.3	83.3	**8.93E-08**	0.94

76140	41.3	31.0	24.1	13.8	10.0	6.1	17.4	10.2	8.0	15.7	83.3	79.1	**9.97E-08**	1.12
123240	41.3	31.0	24.1	13.8	10.2	8.0	15.7	10.6	10.7	13.1	79.1	73.1	**9.68E-08**	1.04
57600	41.3	31.0	24.1	13.8	10.6	10.7	13.1	10.8	11.9	11.9	73.1	70.3	**9.95E-08**	1.00
11280	41.3	31.0	24.1	13.8	10.8	11.9	11.9	10.9	12.1	11.7	70.3	69.9	**8.66E-08**	1.00
88920	50.3	35.1	24.1	20.7	14.3	13	8.1	14.8	15.3	5.5	106.9	101.3	**9.06E-08**	0.88
28560	50.3	35.1	24.1	20.7	14.8	15.3	5.5	14.9	16.0	4.7	101.3	99.6	**8.95E-08**	0.87
77280	50.3	35.1	24.1	20.7	1.8	0.7	24.3	2.1	3.6	21.0	139.5	132.4	**1.01E-07**	0.88
67020	50.3	35.1	24.1	20.7	2.1	3.6	21.0	2.5	5.6	18.9	132.4	127.7	**8.05E-08**	0.95
82560	50.3	35.1	24.1	20.7	2.5	5.6	18.9	2.8	8.4	16.0	127.7	121.2	**9.50E-08**	0.97
92400	50.3	35.1	24.1	20.7	2.8	8.4	16.0	3.0	11.3	13.0	121.2	114.5	**9.28E-08**	0.97
99600	50.3	35.1	24.1	20.7	3.0	11.3	13.0	3.2	14.6	9.6	114.5	106.8	**1.04E-07**	0.97
79620	50.3	35.1	24.1	20.7	3.2	14.6	9.6	3.6	16.8	7.5	106.8	101.9	**8.86E-08**	1.05
95760	50.3	35.1	24.1	20.7	3.6	16.8	7.5	3.8	19.1	5.1	101.9	96.5	**8.47E-08**	0.96
71940	50.3	35.1	24.1	20.7	3.8	19.1	5.1	4.1	20.9	3.3	96.5	92.4	**9.07E-08**	1.00
87600	50.3	35.1	24.1	20.7	4.1	20.9	3.3	4.2	23.2	1.1	92.4	87.3	**9.79E-08**	1.05
85560	50.3	35.1	24.1	20.7	4.2	0.8	24.7	4.4	4.1	21.3	139.9	132.2	**9.86E-08**	0.97
19020	50.3	35.1	24.1	20.7	4.4	4.1	21.3	4.4	4.8	20.6	132.2	130.6	**9.59E-08**	1.00
59160	50.3	35.1	24.1	20.7	5.0	1	23.9	5.4	3.1	21.8	138.7	133.9	**8.92E-08**	1.00

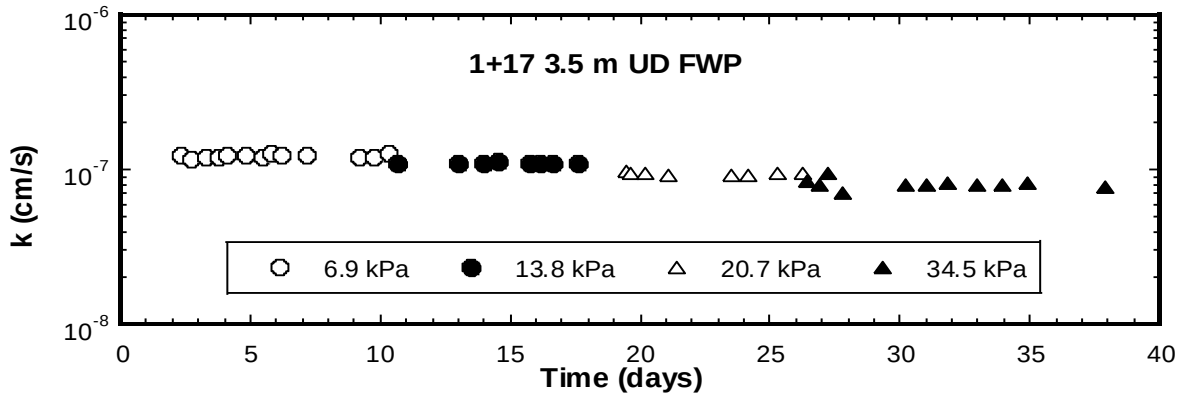
Sample Location:	1+10 (d)	**Final Sample Cross-Sectional Area (cm^2):**	35.57
Depth:	3.51 m	Final Sample Length (cm):	7.93
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	25.8	Conversion Factor (burette to cm):	1.143
Final MC (%):	21.9		



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
20640	34.5	31.0	24.1	6.9	1.3	0.6	24.2	4.5	0.7	20.2	97.3	92.6	**2.34E-07**	0.03
160260	34.5	31.0	24.1	6.9	4.5	0.7	20.2	6.9	9.0	11.8	92.6	73.5	**1.41E-07**	0.99
68760	34.5	31.0	24.1	6.9	6.9	9.0	11.8	7.7	11.6	9.2	73.5	67.6	**1.20E-07**	1.00
33060	34.5	31.0	24.1	6.9	7.7	11.6	9.2	8.0	12.8	8.0	67.6	64.9	**1.23E-07**	1.00
48660	34.5	31.0	24.1	6.9	8.0	12.8	8.0	8.3	14.5	6.3	64.9	61.0	**1.24E-07**	1.00
35880	34.5	31.0	24.1	6.9	8.3	14.5	6.3	8.6	15.6	5.2	61.0	58.5	**1.15E-07**	1.00
59760	34.5	31.0	24.1	6.9	8.6	15.6	5.2	8.8	17.5	3.4	58.5	54.2	**1.23E-07**	1.06
111060	34.5	31.0	24.1	6.9	8.8	17.5	3.4	9.2	20.4	0.5	54.2	47.6	**1.15E-07**	1.00
63480	41.3	31.0	24.1	13.8	1.1	3.4	23.9	5.3	4.2	19.3	93.8	87.6	**1.05E-07**	0.17
87600	41.3	31.0	24.1	13.8	5.3	4.2	19.3	5.7	7.5	15.9	87.6	79.9	**1.02E-07**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
92340	41.3	31.0	24.1	13.8	5.7	7.5	15.9	6.1	10.6	12.7	79.9	72.7	**1.00E-07**	0.97
78720	41.3	31.0	24.1	13.8	6.1	10.6	12.7	6.3	13.1	10.2	72.7	67.0	**1.02E-07**	1.00
76020	41.3	31.0	24.1	13.8	6.3	13.1	10.2	6.4	15.3	8.2	67.0	62.2	**9.56E-08**	1.10
123180	41.3	31.0	24.1	13.8	6.4	15.3	8.2	6.6	18.3	5.3	62.2	55.5	**9.11E-08**	1.03
57720	41.3	31.0	24.1	13.8	6.6	18.3	5.3	6.8	19.6	4.0	55.5	52.5	**9.33E-08**	1.00
88860	50.3	35.1	24.1	20.7	0.7	0.5	24.2	1.0	5.2	19.2	139.6	128.5	**9.11E-08**	0.94
109380	50.3	35.1	24.1	20.7	1.0	5.2	19.2	1.4	10.1	14.1	128.5	117.1	**8.33E-08**	0.96
63420	50.3	35.1	24.1	20.7	1.4	10.1	14.1	1.6	12.6	11.7	117.1	111.5	**7.56E-08**	1.04
82440	50.3	35.1	24.1	20.7	1.6	12.6	11.7	1.7	15.9	8.5	111.5	104.1	**8.18E-08**	1.03
92400	51.0	35.1	24.1	21.4	1.7	15.9	8.5	1.8	19.1	5.3	104.1	96.8	**7.71E-08**	1.00
99780	51.0	35.1	24.1	21.4	1.8	19.1	5.3	1.9	22.2	2.2	96.8	89.7	**7.45E-08**	1.00
79680	51.7	35.1	24.1	22.0	1.9	1.0	24.1	2.2	5.1	20.0	138.9	129.6	**8.57E-08**	1.00
85080	64.1	35.1	24.1	34.5	4.4	4.5	18.5	6.1	7.4	14.1	128.5	120.2	**7.72E-08**	0.66
72000	64.1	35.1	24.1	34.5	6.1	7.4	14.1	6.3	10.2	11.2	120.2	113.7	**7.57E-08**	0.97
87600	64.1	35.1	24.1	34.5	6.3	10.2	11.2	6.5	13.3	8.2	113.7	106.7	**7.07E-08**	1.03
85560	64.1	35.1	24.1	34.5	6.5	13.3	8.2	6.6	15.9	5.5	106.7	100.7	**6.68E-08**	0.96
18960	64.1	35.8	24.1	34.1	6.6	15.9	5.5	6.6	16.6	4.8	107.7	106.1	**7.72E-08**	1.00
2340	64.1	35.8	24.1	34.1	6.7	0.5	24.2	6.7	0.6	24.1	146.7	146.4	**8.15E-08**	0.67
59160	64.1	35.1	24.1	34.5	6.7	0.6	24.1	6.9	3.5	21.1	139.3	132.7	**8.13E-08**	0.98
99060	64.1	35.1	24.1	34.5	6.9	3.5	21.1	7.0	8.0	16.6	132.7	122.4	**7.97E-08**	1.00
76140	64.1	35.5	24.1	34.3	7.0	8.0	16.6	7.1	11.2	13.4	125.9	118.6	**7.69E-08**	1.00
84480	64.1	35.5	24.1	34.3	7.1	11.2	13.4	7.2	14.6	10.1	118.6	110.9	**7.73E-08**	1.03
91620	64.1	35.8	24.1	34.1	7.2	14.6	10.1	7.3	18.2	6.6	114.4	106.3	**7.85E-08**	1.03
18900	64.1	35.8	24.1	34.1	7.3	18.2	6.6	7.3	18.9	5.9	106.3	104.7	**7.85E-08**	1.00

Sample Location:	1+17 (a)	**Final Sample Cross-Sectional Area (cm^2):**	**36.30**
Depth:	3.5 m	Final Sample Length (cm):	7.92
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	26.8	Conversion Factor (burette to cm):	1.143
Final MC (%):			

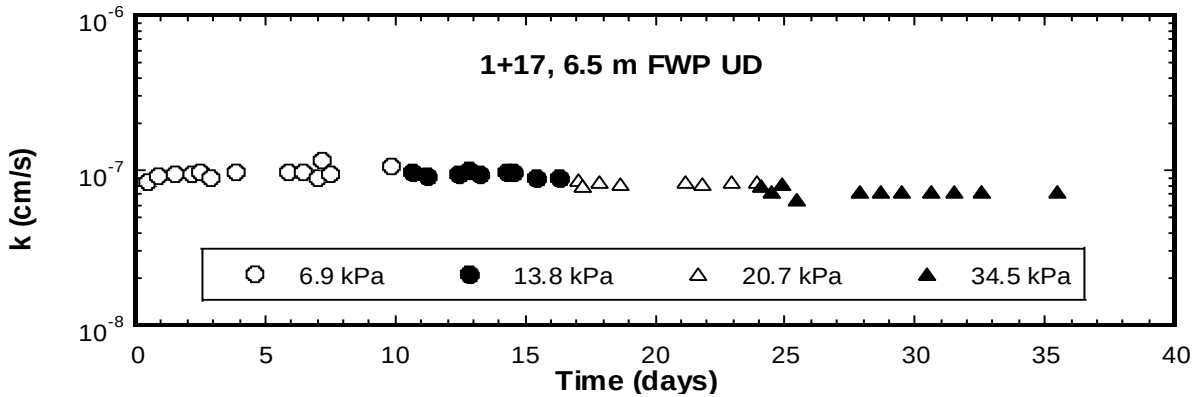


Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
204180	34.5	31.0	24.1	6.9	7.9	1.1	24.5	11.2	10.7	14.5	97.1	74.7	**1.23E-07**	0.96
33240	34.5	31.0	24.1	6.9	11.2	10.7	14.5	11.7	12.0	13.2	74.7	71.7	**1.17E-07**	1.00
48780	34.5	31.0	24.1	6.9	11.7	12	13.2	12.1	13.8	11.3	71.7	67.5	**1.19E-07**	0.95
39240	34.5	31.0	24.1	6.9	12.1	13.8	11.3	12.5	15.2	9.9	67.5	64.3	**1.18E-07**	1.00
33840	34.5	31.0	24.1	6.9	12.5	15.2	9.9	12.7	16.3	8.6	64.3	61.5	**1.23E-07**	0.85
56700	34.5	31.0	24.1	6.9	12.7	16.3	8.6	13.2	18.2	6.7	61.5	57.2	**1.24E-07**	1.00
57120	34.5	31.0	24.1	6.9	13.2	18.2	6.7	13.6	20.0	5.0	57.2	53.2	**1.21E-07**	1.06
31920	34.5	31.0	24.1	6.9	13.6	20	5	13.8	20.9	4.0	53.2	51.0	**1.25E-07**	0.90
33720	34.5	31.0	24.1	6.9	13.8	20.9	4	13.9	21.8	3.0	51.0	48.9	**1.23E-07**	0.90
85440	34.5	31.0	24.1	6.9	13.9	0.4	24.6	14.2	4.9	20.1	98.0	87.7	**1.24E-07**	1.00

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
173580	34.5	31.0	24.1	6.9	14.2	4.9	20.1	15.2	12.4	12.8	87.7	70.8	**1.18E-07**	1.03
47460	34.5	31.0	24.1	6.9	15.2	12.4	12.8	15.4	14.2	11.0	70.8	66.7	**1.21E-07**	1.00
47160	34.5	31.0	24.1	6.9	15.4	14.2	11	15.4	15.9	9.2	66.7	62.7	**1.26E-07**	0.94
29100	41.3	31.0	24.1	13.8	3.6	0.9	24.8	4.7	1.9	23.0	97.7	94.5	**1.10E-07**	0.56
200160	41.3	31.0	24.1	13.8	4.7	1.9	23	6.1	10.0	14.4	94.5	75.4	**1.08E-07**	0.94
88800	41.3	31.0	24.1	13.8	6.1	10	14.4	6.6	13.1	11.2	75.4	68.2	**1.08E-07**	0.97
45480	41.3	31.0	24.1	13.8	6.7	0.2	25	6.7	2.5	22.8	98.7	93.5	**1.13E-07**	1.05
106500	41.3	31.0	24.1	13.8	6.7	2.5	22.8	6.7	7.2	18.0	93.5	82.7	**1.11E-07**	0.98
36960	41.3	31.0	24.1	13.8	6.7	7.2	18	7.0	8.6	16.4	82.7	79.3	**1.10E-07**	0.87
36180	41.3	31.0	24.1	13.8	7	8.6	16.4	7.1	10.0	15.0	79.3	76.1	**1.09E-07**	1.00
86160	41.3	31.0	24.1	13.8	7.1	10	15	7.7	13.2	11.9	76.1	68.9	**1.10E-07**	1.03
76140	50.3	35.1	24.1	20.7	9.9	1	24.8	10.6	5.4	20.1	139.7	129.3	**9.72E-08**	0.94
81840	50.3	35.1	24.1	20.7	11	0.4	24.8	11.5	5.1	20.0	140.4	129.6	**9.41E-08**	0.98
14460	50.3	35.1	24.1	20.7	11.5	5.1	20	11.5	5.9	19.2	129.6	127.7	**9.41E-08**	1.00
52260	50.3	35.1	24.1	20.7	12.5	0.4	24.7	13.0	3.4	21.7	140.3	133.5	**9.18E-08**	1.00
72840	50.3	35.1	24.1	20.7	13	3.4	21.7	133.0	7.3	17.7	133.5	124.4	**9.20E-08**	0.98
213840	50.3	35.1	24.1	20.7	133	7.3	17.7	14.0	17.3	7.5	124.4	101.3	**9.19E-08**	0.98
51960	50.3	35.1	24.1	20.7	14.1	0.4	25	14.2	3.4	21.9	140.7	133.7	**9.36E-08**	0.97
102900	50.3	35.1	24.1	20.7	14.2	3.4	21.9	14.4	9.0	16.3	133.7	120.9	**9.36E-08**	1.00
82860	50.3	35.1	24.1	20.7	14.4	9	16.3	14.7	13.0	12.2	120.9	111.6	**9.20E-08**	0.98
11280	64.1	35.1	24.1	34.5	18.6	0.8	24.9	18.7	1.3	24.2	140.1	138.7	**8.35E-08**	0.71
43260	64.1	35.1	24.1	34.5	18.7	1.3	24.2	19.0	3.4	22.0	138.7	133.8	**7.98E-08**	0.95
30120	64.1	35.1	24.1	34.5	19	3.4	22	19.0	4.8	20.0	133.8	129.9	**9.36E-08**	0.70
48180	64.1	35.1	24.1	34.5	19	4.8	20	19.3	7.0	18.2	129.9	125.3	**7.12E-08**	1.22
210120	64.1	35.1	24.1	34.5	19.3	7	18.2	20.0	15.6	9.3	125.3	105.3	**7.92E-08**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
66600	64.1	35.1	24.1	34.5	20.1	0.3	25	20.3	3.5	21.6	140.8	133.2	**7.91E-08**	0.94
69120	64.1	35.1	24.1	34.5	20.3	3.5	21.6	20.4	6.8	18.3	133.2	125.7	**8.07E-08**	1.00
96900	64.1	35.1	24.1	34.5	20.4	6.8	18.3	20.7	11.0	14.0	125.7	116.0	**7.95E-08**	0.98
84000	64.1	35.1	24.1	34.5	20.7	11	14	21.0	14.4	10.6	116.0	108.2	**7.90E-08**	1.00
86820	64.1	35.1	24.1	34.5	21	14.4	10.6	21.2	17.7	7.2	108.2	100.5	**8.09E-08**	0.97
253860	64.1	35.1	24.1	34.5	2.7	0.2	24.8	3.3	11.6	13.2	140.7	114.4	**7.80E-08**	0.98

Sample Location:	1+17 (b)	**Final Sample Cross-Sectional Area (cm^2):**	**39.76**
Depth:	6.5 m	Final Sample Length (cm):	8.05
Sample Type:	Undisturbed FWP	Burette Cross-Sectional Area (cm^2):	0.877
Initial MC (%):	24.5	Conversion Factor (burette to cm):	1.143
Final MC (%):			



Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
39120	34.5	31.0	24.1	6.9	1.2	3.7	20.2	4.6	4.5	18.2	89.2	86.0	**8.30E-08**	0.40
33900	34.5	31.0	24.1	6.9	4.6	4.5	18.2	5.5	5.8	16.9	86.0	83.0	**9.22E-08**	1.00
56760	34.5	31.0	24.1	6.9	5.5	5.8	16.9	6.9	8.1	14.9	83.0	78.1	**9.55E-08**	1.15
57060	34.5	31.0	24.1	6.9	6.9	8.1	14.9	8.2	10.2	13.0	78.1	73.5	**9.39E-08**	1.11
31860	34.5	31.0	24.1	6.9	8.2	10.2	13	9.0	11.4	12.0	73.5	71.0	**9.70E-08**	1.20
33900	34.5	31.0	24.1	6.9	9	11.4	12	9.4	12.5	11.0	71.0	68.6	**9.01E-08**	1.10
85260	34.5	31.0	24.1	6.9	9.4	12.5	11	10.7	15.3	8.5	68.6	62.6	**9.63E-08**	1.12
173520	34.5	31.0	24.1	6.9	10.7	15.3	8.5	12.9	20.3	4.0	62.6	51.7	**9.76E-08**	1.11
47580	34.5	31.0	24.1	6.9	12.9	20.3	4	13.4	21.5	2.9	51.7	49.1	**9.74E-08**	1.09
47700	34.5	31.0	24.1	6.9	13.4	21.5	2.9	13.6	22.5	1.9	49.1	46.8	**8.88E-08**	1.00

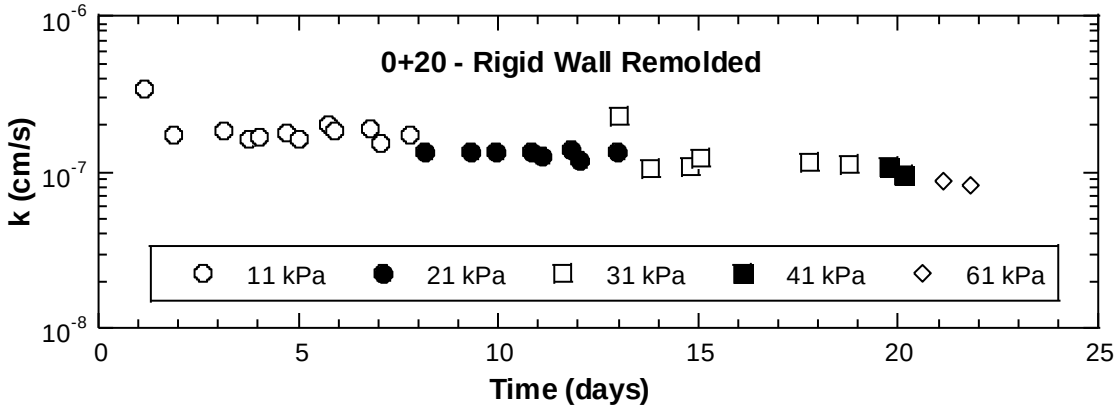
Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
14400	34.5	31.0	24.1	6.9	0.5	0.2	24.9	0.7	1.0	24.1	98.6	96.7	**1.16E-07**	1.00
28980	34.5	31.0	24.1	6.9	0.7	1	24.1	0.9	2.2	22.7	96.7	93.8	**9.56E-08**	0.86
200340	34.5	31.0	24.1	6.9	0.9	2.2	22.7	2.4	11.1	14.0	93.8	73.7	**1.07E-07**	1.02
72060	41.3	31.0	24.1	13.8	4	11	13.1	5.0	13.3	10.5	72.7	67.1	**9.88E-08**	0.88
45540	41.3	31.0	24.1	13.8	5	13.3	10.5	5.6	14.6	9.1	67.1	64.1	**9.18E-08**	0.93
106740	41.3	31.0	24.1	13.8	5.6	14.6	9.1	6.5	17.4	5.9	64.1	57.2	**9.42E-08**	0.88
36600	41.3	31.0	24.1	13.8	6.5	17.4	5.9	6.5	18.3	4.8	57.2	54.9	**9.90E-08**	0.82
36180	41.3	31.0	24.1	13.8	6.5	18.3	4.8	6.8	19.2	3.9	54.9	52.9	**9.38E-08**	1.00
90000	41.3	31.0	24.1	13.8	6.8	19.2	3.9	7.8	21.4	1.8	52.9	47.9	**9.63E-08**	1.05
18240	41.3	31.0	24.1	13.8	8	0.1	25.1	8.1	1.0	24.3	98.9	97.0	**9.66E-08**	1.13
76320	41.3	31.0	24.1	13.8	8.1	1	24.3	8.7	4.1	21.1	97.0	89.8	**8.98E-08**	0.97
75720	41.3	31.0	24.1	13.8	8.7	4.1	21.1	9.1	7.0	18.2	89.8	83.1	**9.00E-08**	1.00
67560	50.3	35.1	24.1	20.7	10.6	1	25	11.3	4.6	20.8	140.0	131.1	**8.65E-08**	0.86
14640	50.3	35.1	24.1	20.7	11.3	4.6	20.8	11.9	5.3	20.0	131.1	129.3	**7.99E-08**	0.87
52980	50.3	35.1	24.1	20.7	13.9	0.2	24.4	15.7	3.0	21.2	140.2	133.3	**8.41E-08**	0.88
72780	50.3	35.1	24.1	20.7	15.8	3	25	17.1	6.8	21.0	137.7	128.8	**8.17E-08**	0.95
213660	50.3	35.1	24.1	20.7	17.1	6.8	21	20.6	17.0	10.8	128.8	105.5	**8.31E-08**	1.00
52200	50.3	35.1	24.1	20.7	0.3	0.2	25	1.2	3.1	22.1	140.9	134.3	**8.20E-08**	1.00
102900	50.3	35.1	24.1	20.7	1.2	3.1	22.1	2.6	8.4	16.6	134.3	121.9	**8.33E-08**	0.96
82920	50.3	35.1	24.1	20.7	2.6	8.4	16.6	3.7	12.4	12.6	121.9	112.8	**8.35E-08**	1.00
11160	64.1	35.1	24.1	34.5	7.7	1	24.8	7.9	1.6	24.2	139.7	138.4	**7.85E-08**	1.00
36120	64.1	35.1	24.1	34.5	7.9	1.6	24.2	8.5	3.3	22.4	138.4	134.4	**7.22E-08**	0.94
37200	64.1	35.1	24.1	34.5	8.5	3.3	22.4	9.0	5.0	20.1	134.4	129.8	**8.27E-08**	0.74
48120	64.1	35.1	24.1	34.5	9	5	20.1	9.7	7.2	18.4	129.8	125.3	**6.45E-08**	1.29
210360	64.1	35.1	24.1	34.5	9.7	7.2	18.4	12.6	15.7	9.6	125.3	105.6	**7.25E-08**	0.97

Elapsed Time (seconds)	Applied Pressure				Initial Readings			Final Readings			Initial Δh (cm)	Final Δh (cm)	k (cm/s)	Flow Balance (Q_{in}/Q_{out})
	Cell (kPa)	Head (kPa)	Tail (kPa)	$\sigma'_{avg.}$ (kPa)	Cell	Head	Tail	Cell	Head	Tail				
66360	64.1	35.1	24.1	34.5	12.6	15.7	9.6	13.4	18.1	7.1	105.6	100.0	**7.30E-08**	0.96
69240	64.1	35.1	24.1	34.5	13.4	18.1	7.1	14.1	20.5	4.7	100.0	94.5	**7.24E-08**	1.00
96960	64.1	35.1	24.1	34.5	14.1	20.5	4.7	15.3	23.6	1.5	94.5	87.3	**7.26E-08**	0.97
81900	64.1	35.1	24.1	34.5	15.3	0.6	25	16.2	4.6	21.0	140.4	131.3	**7.30E-08**	1.00
86700	64.1	35.1	24.1	34.5	16.2	4.6	21	17.1	8.5	17.0	131.3	122.3	**7.30E-08**	0.98
253860	64.08	35.1	24.1	34.5	17.1	8.5	17	19.3	18.4	6.9	122.3	99.4	**7.24E-08**	0.98

Oedometer Rigid Wall Test Results

Remolded Samples

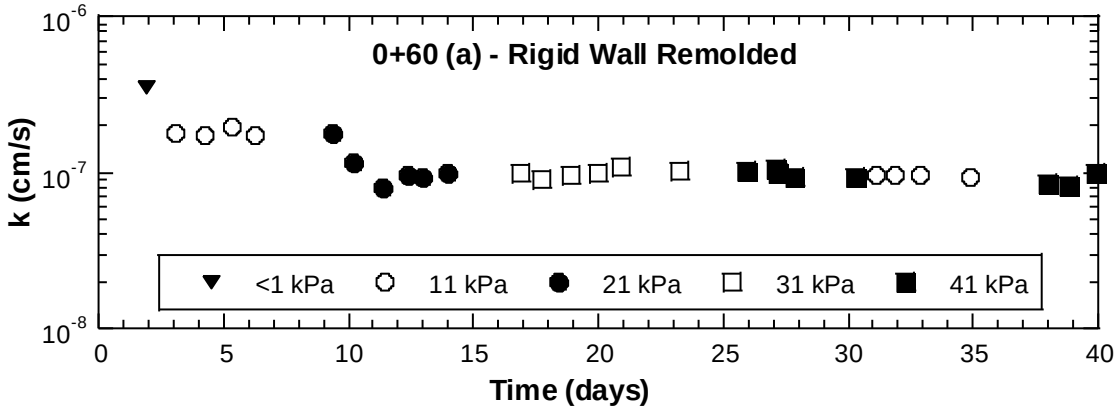
Sample Location:	0+20	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.942
Initial MC (%):	29.3	**Conversion Factor (burette reading to cm):**	0.515
Final MC (%):	21.3	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
2700	23.3	23.2	0.2	3.48	10.39	3.45E-07
61980	23.2	22.0	2.2	3.47	10.4	1.70E-07
109260	22.0	20.0	3.9	3.47	10.5	1.83E-07
54720	20.0	19.2	1.6	3.47	10.6	1.61E-07
20640	19.2	18.9	0.6	3.47	10.6	1.65E-07
59220	18.9	18.0	1.8	3.47	10.6	1.78E-07
25860	18.0	17.6	0.7	3.47	10.7	1.64E-07
65100	17.6	16.5	2.1	3.47	10.7	2.04E-07
10680	16.5	16.4	0.3	3.47	10.7	1.84E-07
79500	51.2	47.7	6.9	3.47	9.1	1.89E-07
21000	47.7	47.0	1.4	3.47	9.2	1.52E-07
63720	47.0	44.5	4.7	3.47	9.3	1.74E-07
14400	44.5	44.1	0.8	3.41	19.7	1.33E-07
99600	44.1	41.3	5.4	3.41	19.8	1.35E-07
55140	41.3	39.9	2.8	3.41	19.9	1.33E-07
75900	39.9	38.0	3.7	3.41	20.0	1.33E-07
24660	38.0	37.4	1.1	3.41	20.0	1.26E-07
60720	37.4	35.9	2.9	3.41	20.1	1.38E-07
19920	35.9	35.5	0.8	3.41	20.1	1.19E-07

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
79140	35.5	33.7	3.5	3.41	20.2	1.36E-07
5460	33.7	33.5	0.4	3.41	30.6	2.31E-07
53220	33.6	32.7	1.8	3.35	30.6	1.06E-07
66540	50.8	49.0	3.4	3.35	29.8	1.07E-07
23040	49.0	48.4	1.3	3.35	29.9	1.21E-07
233700	48.4	42.4	11.6	3.35	30.0	1.14E-07
60540	41.9	40.5	2.7	3.35	30.2	1.13E-07
64140	51.4	49.7	3.4	3.32	40.1	1.08E-07
28680	49.7	49.0	1.3	3.31	40.2	9.44E-08
14760	47.8	47.5	0.6	3.25	61.0	8.63E-08
57720	47.5	46.4	2.2	3.25	61.0	8.22E-08

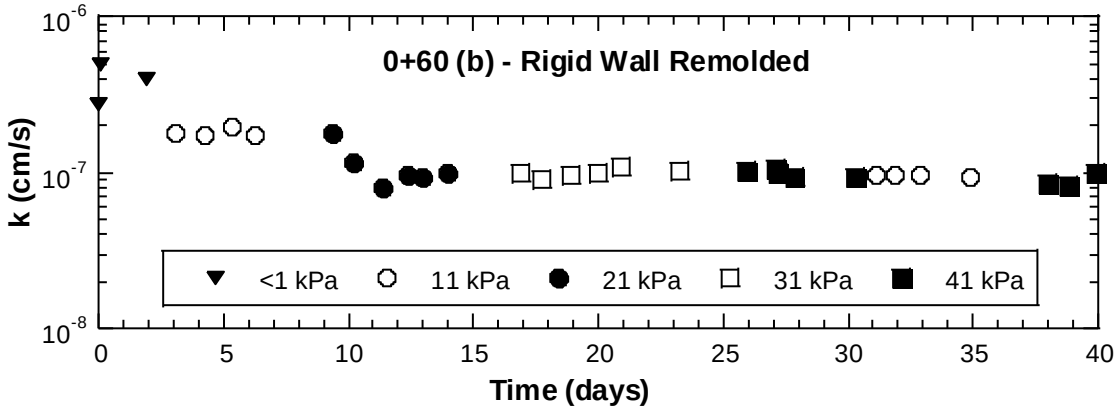
Sample Location:	0+60 (a)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.934
Initial MC (%):	30.9	**Conversion Factor (burette reading to cm):**	0.517
Final MC (%):	21.9	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
160080	10.5	8.2	4.6	3.45	0.72	3.54E-07
94320	25.9	24.0	3.6	3.22	10.3	1.65E-07
95700	24.0	21.8	4.2	3.22	10.4	2.06E-07
99300	21.8	19.9	3.8	3.22	10.5	1.97E-07
79320	19.9	18.4	2.9	3.22	10.6	2.06E-07
263880	18.4	15.5	5.6	3.17	21.0	1.33E-07
73920	51.2	48.6	5.1	3.16	19.4	1.46E-07
96420	48.6	45.3	6.4	3.14	19.6	1.49E-07
88080	45.3	42.5	5.4	3.14	19.7	1.47E-07
51420	42.5	40.9	3.0	3.14	19.8	1.47E-07
84960	40.9	38.5	4.8	3.14	19.9	1.49E-07
251340	38.5	32.6	11.4	3.11	30.5	1.33E-07
76500	32.6	31.0	3.0	3.10	30.7	1.28E-07
99960	31.0	29.1	3.8	3.10	30.7	1.31E-07
90840	29.1	27.3	3.4	3.10	30.8	1.38E-07
79020	27.3	25.9	2.8	3.10	30.9	1.38E-07
205440	25.9	22.4	6.6	3.10	31.0	1.38E-07
225840	22.4	19.4	5.8	3.07	41.5	1.26E-07
104280	19.4	18.1	2.6	3.07	41.6	1.37E-07
14220	51.3	50.8	1.0	3.07	40.1	1.42E-07
57180	50.8	49.0	3.4	3.07	40.1	1.23E-07
210120	49.0	43.0	11.6	3.07	40.3	1.24E-07
64680	43.0	40.7	4.4	3.07	9.5	1.67E-07

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
67320	40.7	39.6	2.2	3.07	9.6	8.38E-08
90000	39.6	37.3	4.4	3.07	9.6	1.31E-07
175500	37.3	33.4	7.6	3.07	9.8	1.26E-07
267900	33.4	28.4	9.6	3.06	41.0	1.19E-07
63600	28.4	27.4	2.0	3.06	41.2	1.15E-07
99180	27.4	25.7	3.2	3.06	41.2	1.24E-07
108840	25.7	23.9	3.6	3.06	41.3	1.37E-07
63300	23.9	22.9	2.0	3.05	41.4	1.38E-07
349140	22.9	17.8	9.8	3.05	41.6	1.42E-07

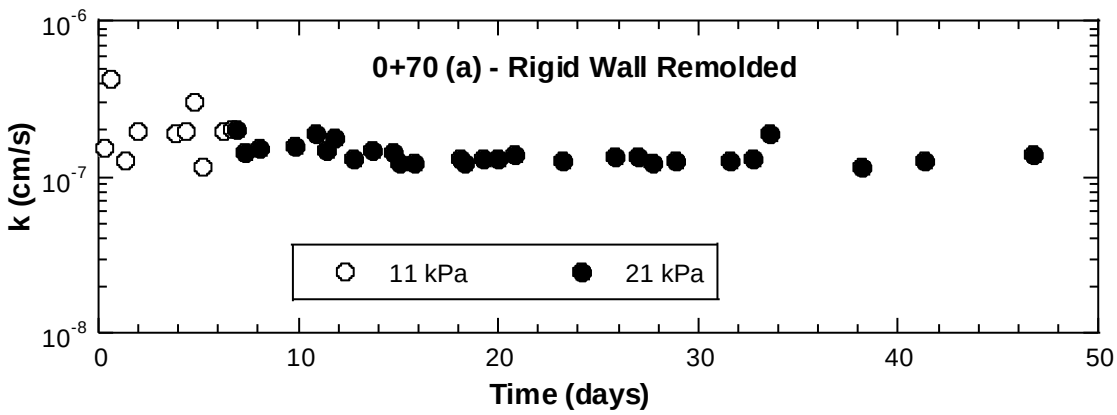
Sample Location:	0+60 (b)	Sample Cross-Sectional Area (cm^2):	33.18
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.923
Initial MC (%):	30.9	**Conversion Factor (burette reading to cm):**	0.520
Final MC (%):	21.7	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
2160	12.8	12.7	0.1	2.33	0.5	2.72E-07
6000	12.7	12.5	0.5	2.32	0.5	4.94E-07
160080	12.5	8.0	8.6	2.31	0.6	3.96E-07
94320	24.5	21.7	5.5	2.18	10.0	1.78E-07
95700	21.7	19.2	4.8	2.18	10.2	1.73E-07
99300	19.2	16.6	4.9	2.18	10.3	1.94E-07
79320	16.6	15.0	3.1	2.18	10.4	1.74E-07
263880	15.0	10.6	8.6	2.13	20.6	1.77E-07
73920	51.6	48.4	6.3	2.07	18.7	1.15E-07
96420	48.4	45.6	5.4	2.07	18.9	8.01E-08
88080	45.6	42.6	5.6	2.07	19.0	9.68E-08
51420	42.6	41.1	3.0	2.07	19.1	9.36E-08
84960	41.1	38.5	5.0	2.07	19.2	9.94E-08
251340	38.5	31.7	13.0	2.06	29.5	9.88E-08
76500	31.7	30.1	3.2	2.06	29.7	9.05E-08
99960	30.1	27.9	4.2	2.06	29.8	9.70E-08
90840	27.9	26.0	3.6	2.06	29.9	9.84E-08
79020	26.0	24.3	3.2	2.06	30.0	1.08E-07
205440	24.3	20.7	7.0	2.06	30.1	1.01E-07
225840	20.7	17.3	6.6	2.05	40.3	1.03E-07
104280	17.3	15.9	2.7	2.05	40.4	1.04E-07
14220	51.6	51.1	1.1	2.05	38.7	1.00E-07
57180	51.1	49.0	4.0	2.05	38.8	9.30E-08

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
210120	49.0	42.0	13.4	2.05	39.0	9.33E-08

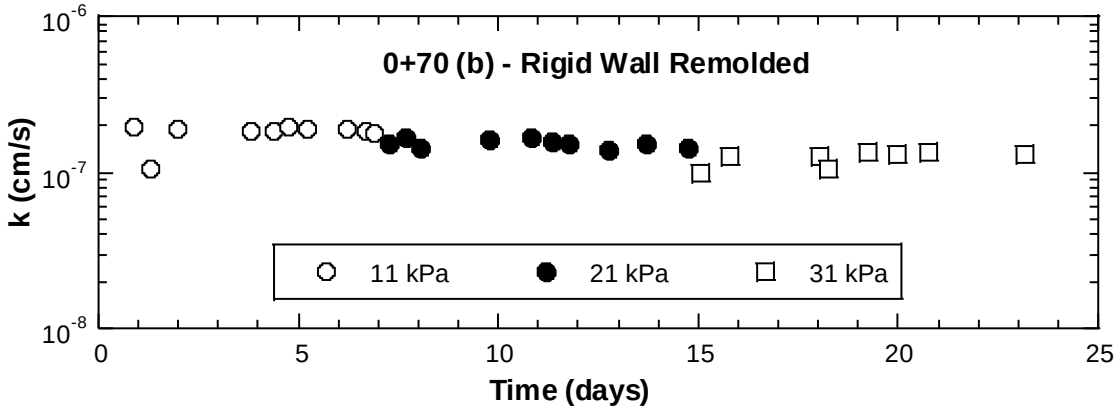
Sample Location:	0+70 (a)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.938
Initial MC (%):	31.6	**Conversion Factor (burette reading to cm):**	0.516
Final MC (%):	23.4	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
17100	25.7	25.4	0.7	3.09	9.0	**1.55E-07**
23700	25.4	24.0	2.6	3.09	9.0	**4.29E-07**
35400	43.9	42.8	2.0	3.09	8.1	**1.26E-07**
57000	42.8	40.4	4.8	3.09	8.2	**1.96E-07**
160020	40.4	34.4	11.6	3.09	8.4	**1.88E-07**
51180	34.4	32.6	3.5	3.09	8.6	**1.97E-07**
29280	32.6	31.1	2.9	3.09	8.7	**3.01E-07**
43620	31.1	30.2	1.6	3.09	8.7	**1.16E-07**
82500	30.2	27.8	4.8	3.09	8.8	**1.94E-07**
40200	27.8	26.6	2.3	3.09	8.9	**2.03E-07**
21900	26.6	26.0	1.2	3.09	20.5	**2.02E-07**
9900	51.6	26.3	49.0	3.07	19.8	**1.26E-05**
17640	26.3	26.0	0.7	3.06	20.5	**1.45E-07**
66180	26.0	24.6	2.7	3.06	20.5	**1.54E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
153120	24.6	21.6	5.8	3.06	20.6	**1.56E-07**
87480	21.6	19.7	3.6	3.06	20.7	**1.90E-07**
46500	19.7	19.0	1.4	3.06	20.8	**1.48E-07**
34380	19.0	18.4	1.2	3.06	20.8	**1.78E-07**
66420	50.7	48.3	4.5	3.06	19.3	**1.30E-07**
81000	48.3	45.3	5.9	3.06	19.4	**1.48E-07**
90120	45.3	42.2	6.0	3.06	19.6	**1.45E-07**
2700	51.6	42.3	18.0	3.05	19.4	**1.35E-05**
22320	42.3	41.7	1.2	3.05	19.7	**1.21E-07**
63840	41.7	39.9	3.4	3.05	19.7	**1.23E-07**
195480	39.9	34.7	10.1	3.05	19.9	**1.31E-07**
15360	34.7	34.4	0.7	3.05	20.0	**1.24E-07**
85860	34.4	32.3	4.0	3.05	20.1	**1.32E-07**
64140	32.3	30.9	2.8	3.05	20.2	**1.30E-07**
68700	30.9	29.3	3.0	3.05	20.3	**1.37E-07**
205680	29.3	25.4	7.6	3.05	20.4	**1.27E-07**
226380	25.4	21.5	7.6	3.05	20.6	**1.35E-07**
74280	51.0	48.3	5.2	3.05	19.3	**1.33E-07**
67320	48.3	46.1	4.2	3.04	19.4	**1.24E-07**
95640	46.1	43.1	5.8	3.04	19.6	**1.28E-07**
243120	43.1	36.4	13.1	3.04	19.8	**1.28E-07**
97020	36.4	34.0	4.7	3.04	20.0	**1.30E-07**
65940	34.0	31.7	4.4	3.04	20.1	**1.91E-07**
404280	31.7	24.6	13.8	3.04	20.4	**1.15E-07**
268560	24.6	20.3	8.2	3.04	20.6	**1.28E-07**
466680	20.3	14.2	11.9	3.04	20.9	**1.40E-07**

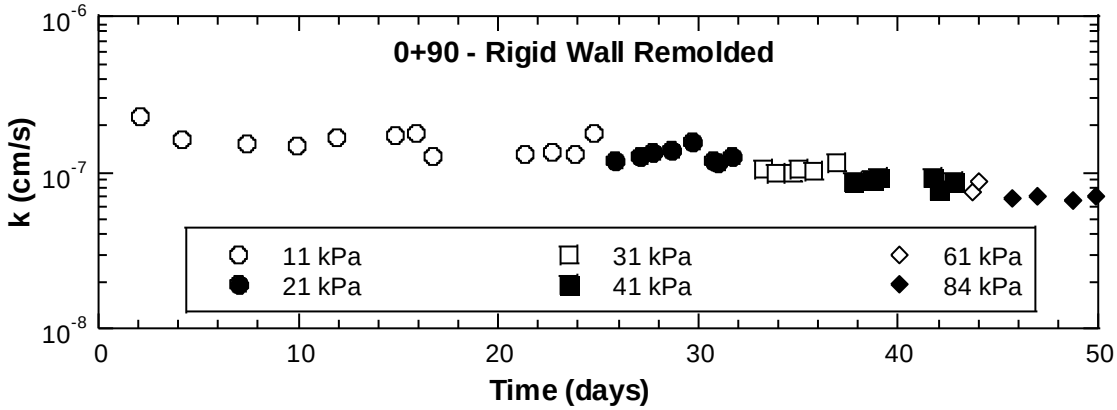
Sample Location:	0+70 (b)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.938
Initial MC (%):	31.6	**Conversion Factor (burette reading to cm):**	0.516
Final MC (%):	23.7	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
50094	31.3	29.7	3.1	3.12	8.8	**1.97E-07**
35340	41.6	40.7	1.6	3.11	8.2	**1.06E-07**
57000	40.7	38.4	4.4	3.11	8.3	**1.89E-07**
160020	38.4	32.7	10.9	3.11	8.5	**1.86E-07**
51180	32.7	31.1	3.1	3.11	8.7	**1.84E-07**
29100	31.1	30.1	1.8	3.11	8.7	**1.96E-07**
43980	30.1	28.8	2.5	3.11	8.8	**1.87E-07**
82320	28.8	26.5	4.5	3.11	8.9	**1.91E-07**
40200	26.5	25.4	2.0	3.11	9.0	**1.86E-07**
21900	25.4	24.9	1.0	3.11	9.0	**1.76E-07**
17640	25.1	24.8	0.7	3.09	20.5	**1.53E-07**
35040	24.8	24.0	0.2	3.09	20.5	**1.67E-07**
31140	24.0	23.4	2.4	3.09	20.6	**1.45E-07**
153180	23.4	20.5	5.6	3.08	20.7	**1.60E-07**
87480	20.5	18.9	3.0	3.08	20.8	**1.67E-07**
46260	18.9	18.2	1.4	3.08	20.8	**1.56E-07**
34620	18.2	17.6	1.0	3.08	20.9	**1.54E-07**
59160	51.9	49.6	4.4	3.08	19.3	**1.40E-07**
81000	49.6	46.3	6.2	3.08	19.4	**1.53E-07**
90120	46.3	43.1	6.1	3.08	19.6	**1.45E-07**
22320	43.3	42.7	1.0	3.08	32.0	**9.97E-08**
63900	42.7	40.9	3.5	3.08	32.1	**1.25E-07**
195420	40.9	35.7	9.9	3.08	32.3	**1.27E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
15420	35.7	35.4	0.6	3.08	32.4	**1.05E-07**
85860	35.4	33.2	4.1	3.08	32.5	**1.33E-07**
64140	33.2	31.8	2.8	3.08	32.6	**1.29E-07**
68640	31.8	30.2	3.0	3.08	32.6	**1.35E-07**
205680	30.2	26.0	7.9	3.07	32.8	**1.31E-07**
226440	26.0	21.9	7.8	3.07	33.0	**1.37E-07**
74460	52.2	49.6	4.9	3.07	31.7	**1.23E-07**
67320	49.6	47.4	4.3	3.07	31.8	**1.26E-07**
95640	47.4	44.3	5.9	3.07	31.9	**1.28E-07**
243180	44.3	37.4	13.1	3.07	32.1	**1.26E-07**
96900	37.4	35.0	4.6	3.07	32.4	**1.25E-07**
66060	35.0	32.7	4.4	3.07	32.5	**1.88E-07**
404520	32.7	25.5	13.6	3.06	32.7	**1.11E-07**
268320	25.5	21.4	7.8	3.06	33.0	**1.18E-07**
466680	21.4	16.0	10.3	3.06	33.2	**1.13E-07**
897300	16.0	7.1	16.9	3.06	33.6	**1.63E-07**

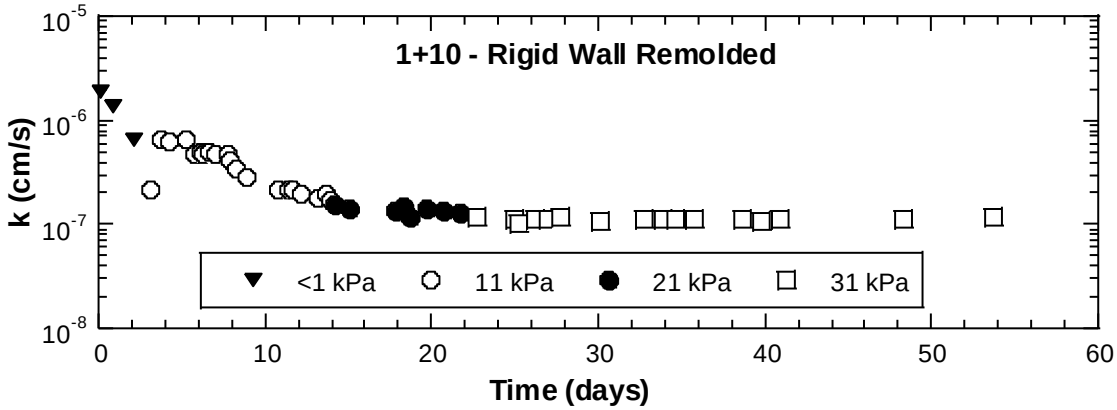
Sample Location:	0+90	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.905
Initial MC (%):	27.0	**Conversion Factor (burette reading to cm):**	0.525
Final MC (%):	22.5	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
4560	20.3	17.3	5.6	2.92	10.6	**5.94E-06**
78540	17.3	2.3	28.6	2.91	11.1	**4.42E-06**
87000	30.6	27.3	6.3	2.90	10.1	**2.26E-07**
182040	27.3	22.8	8.5	2.79	10.3	**1.62E-07**
278640	22.8	17.6	9.9	2.78	10.5	**1.52E-07**
214080	17.6	14.6	5.8	2.78	10.7	**1.46E-07**
177360	14.6	12.2	4.6	2.78	10.9	**1.68E-07**
253680	12.2	9.2	5.6	2.68	11.0	**1.73E-07**
87900	9.2	8.4	1.6	2.77	11.1	**1.78E-07**
61800	35.4	33.7	3.2	2.74	9.8	**1.28E-07**
397200	33.7	24.5	17.6	2.74	10.1	**1.31E-07**
105480	24.2	22.2	3.8	2.74	10.4	**1.33E-07**
70440	21.7	20.5	2.3	2.74	10.5	**1.32E-07**
80820	20.5	18.8	3.4	2.74	10.6	**1.76E-07**
61980	25.3	24.2	2.2	2.70	20.7	**1.20E-07**
109260	24.2	22.2	3.8	2.70	20.8	**1.26E-07**
54720	22.2	21.2	1.9	2.70	20.8	**1.34E-07**
59220	20.8	19.7	2.0	2.70	20.9	**1.40E-07**
65100	19.5	18.3	2.3	2.70	21.0	**1.57E-07**
79500	51.5	48.5	5.6	2.69	19.4	**1.18E-07**
21000	48.5	47.8	1.4	2.69	19.5	**1.16E-07**
63720	47.8	45.4	4.5	2.69	19.6	**1.27E-07**
99600	44.8	41.9	5.5	2.64	30.1	**1.05E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
55140	41.9	40.5	2.7	2.64	30.2	**9.76E-08**
75900	40.5	38.6	3.6	2.64	30.3	**9.84E-08**
24660	38.6	38.0	1.2	2.64	30.4	**1.04E-07**
60720	38.0	36.5	2.8	2.64	30.4	**1.02E-07**
79140	36.3	34.2	3.9	2.64	30.5	**1.15E-07**
53220	33.8	32.8	1.9	2.61	41.0	**8.71E-08**
66540	51.3	49.4	3.7	2.61	40.1	**8.97E-08**
23040	49.4	48.7	1.3	2.61	40.2	**9.34E-08**
233700	48.7	42.4	12.1	2.61	40.4	**9.24E-08**
27540	42.4	41.8	1.1	2.61	40.5	**7.70E-08**
60540	41.8	40.4	2.7	2.61	40.6	**8.81E-08**
64140	52.3	50.7	3.1	2.56	60.8	**7.48E-08**
28680	50.7	49.8	1.6	2.56	60.9	**8.84E-08**
57720	47.9	46.7	2.4	2.53	81.7	**6.91E-08**
86460	46.3	44.5	3.5	2.52	81.8	**6.99E-08**
158520	44.5	41.5	5.7	2.52	81.9	**6.56E-08**
97980	41.5	39.6	3.6	2.52	82.1	**7.10E-08**

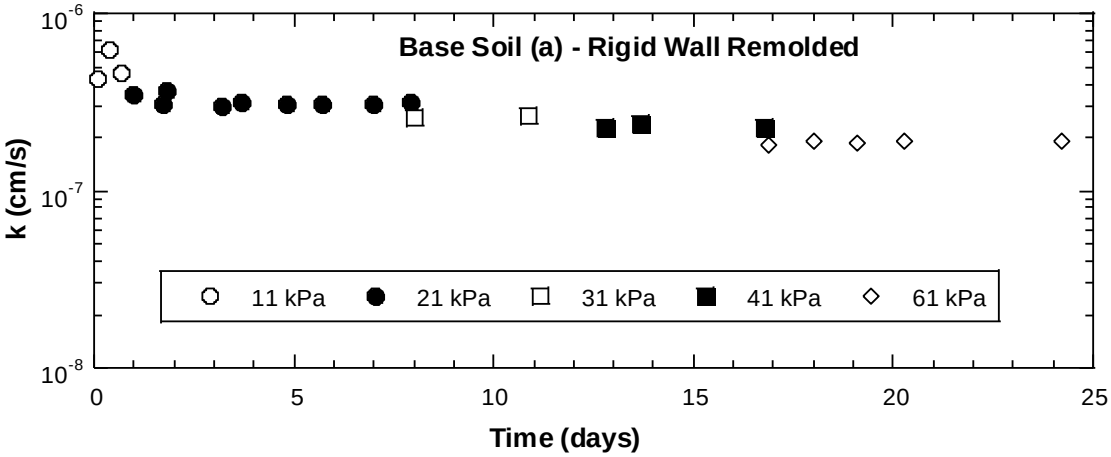
Sample Location:	1+10	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.916
Initial MC (%):	24.3	**Conversion Factor (burette reading to cm):**	0.522
Final MC (%):	--	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
7080	31.6	29.4	4.2	3.17	-0.3	**1.91E-06**
72420	29.4	17.2	23.4	3.13	0.1	**1.38E-06**
3780	17.2	13.9	6.3	3.13	0.5	**1.05E-05**
98460	13.9	9.8	7.9	3.13	0.6	**6.64E-07**
84180	43.4	39.3	8.0	3.05	9.4	**2.18E-07**
54300	39.3	32.2	13.6	3.04	9.7	**6.66E-07**
43500	32.2	27.7	8.6	3.04	10.0	**6.27E-07**
85800	27.7	20.4	14.0	3.04	10.3	**6.48E-07**
43500	20.4	18.2	4.1	3.04	10.5	**4.63E-07**
35100	18.2	16.5	3.2	3.04	10.6	**4.97E-07**
12600	16.5	16.0	1.0	3.04	10.7	**4.61E-07**
34200	16.0	14.6	2.7	3.04	10.7	**4.88E-07**
25500	14.6	13.7	1.8	3.04	10.8	**4.72E-07**
69900	13.7	11.4	4.4	3.04	10.8	**4.76E-07**
6240	11.4	11.2	0.3	3.04	10.9	**4.02E-07**
35820	46.5	43.4	5.8	3.04	9.3	**3.41E-07**
56880	43.4	39.8	7.0	3.04	9.4	**2.80E-07**
159900	39.8	32.8	13.3	3.04	9.7	**2.17E-07**
51240	32.8	30.9	3.7	3.04	9.9	**2.14E-07**
29160	30.9	29.9	2.0	3.04	10.0	**2.13E-07**
43800	29.9	28.5	2.6	3.04	10.0	**1.92E-07**
82500	28.5	26.3	4.3	3.04	10.1	**1.80E-07**
40200	26.3	25.2	2.1	3.04	10.2	**1.92E-07**

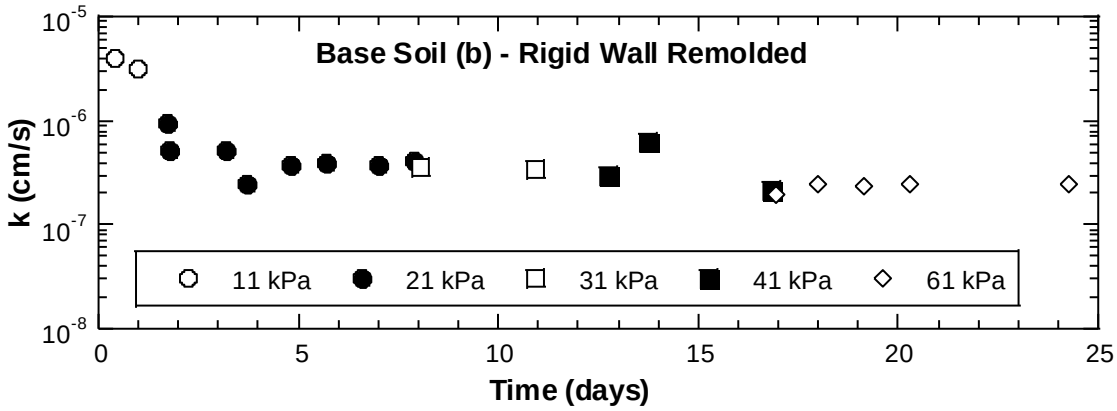
Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
21900	25.2	24.6	1.0	3.04	10.2	**1.73E-07**
17520	24.9	24.5	0.7	3.02	20.5	**1.52E-07**
66240	24.5	23.3	2.4	3.02	20.6	**1.42E-07**
240900	23.3	19.4	7.4	3.02	20.7	**1.35E-07**
46500	19.4	18.7	1.4	3.02	20.8	**1.48E-07**
34380	18.7	18.3	0.8	3.02	20.8	**1.18E-07**
59220	51.8	49.5	4.4	3.02	19.3	**1.38E-07**
80940	49.5	46.6	5.6	3.02	19.4	**1.35E-07**
90240	46.6	43.6	5.6	3.02	19.5	**1.29E-07**
63840	43.2	41.4	3.4	3.01	29.9	**1.18E-07**
195540	41.4	36.7	9.0	3.01	30.1	**1.10E-07**
15300	36.7	36.4	0.6	3.01	30.2	**1.00E-07**
85800	36.4	34.6	3.6	3.01	30.2	**1.10E-07**
64260	34.6	33.2	2.6	3.01	30.3	**1.12E-07**
68640	33.2	31.7	2.8	3.01	30.4	**1.17E-07**
205740	31.7	28.1	7.0	3.00	30.5	**1.06E-07**
226320	28.1	24.3	7.2	3.00	30.7	**1.14E-07**
99420	52.1	49.0	6.0	3.00	29.5	**1.12E-07**
67200	49.0	47.0	3.8	3.00	29.6	**1.10E-07**
95880	47.0	44.3	5.2	3.00	29.7	**1.11E-07**
243000	44.3	38.1	11.8	3.00	30.0	**1.10E-07**
97200	38.1	35.9	4.2	3.00	30.2	**1.09E-07**
101940	35.9	33.7	4.2	3.00	30.3	**1.10E-07**
636660	33.7	22.8	21.0	3.00	30.6	**1.10E-07**
466680	22.8	16.7	11.6	3.00	31.0	**1.18E-07**
897900	16.7	7.8	17.0	3.00	31.4	**1.51E-07**

Sample Location:	Base Soil (a)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	**Burette Cross-Sectional Area (cm^2):**	1.905
Initial MC (%):	26.8	**Conversion Factor (burette reading to cm):**	0.525
Final MC (%):	20.9	Remolded Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
11100	18.4	18.0	0.8	3.49	10.6	**4.21E-07**
23100	18.0	17.1	1.6	3.49	10.7	**6.21E-07**
27780	17.1	16.1	2.0	3.49	10.7	**4.60E-07**
22260	16.5	15.9	1.2	3.44	21.1	**3.45E-07**
58560	15.9	14.5	2.6	3.44	21.1	**3.05E-07**
5055	33.9	33.6	0.6	3.43	20.2	**3.67E-07**
121020	33.6	27.9	10.8	3.43	20.4	**3.03E-07**
48900	27.9	25.8	4.0	3.43	20.5	**3.17E-07**
93060	25.8	22.4	6.6	3.43	20.7	**3.07E-07**
79860	22.4	19.7	5.0	3.43	20.8	**3.10E-07**
110280	19.7	16.6	5.9	3.43	21.0	**3.07E-07**
75660	16.6	14.8	3.6	3.43	21.1	**3.16E-07**
8880	50.2	49.6	1.1	3.41	29.8	**2.57E-07**
249300	49.6	35.5	26.8	3.40	30.1	**2.63E-07**
160560	35.5	29.6	11.3	3.38	41.0	**2.25E-07**
84300	29.6	26.8	5.4	3.38	41.2	**2.36E-07**
265740	26.8	19.7	13.4	3.36	41.4	**2.26E-07**
8700	51.9	51.5	0.8	3.33	60.7	**1.83E-07**
93900	51.5	46.9	8.6	3.33	60.8	**1.91E-07**
96000	46.9	42.8	7.8	3.33	61.0	**1.86E-07**
99300	42.8	38.9	7.6	3.33	61.2	**1.92E-07**
343200	38.9	27.8	21.0	3.33	61.6	**1.90E-07**

Sample Location:	Base Soil (b)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	Surface	Burette Cross-Sectional Area (cm^2):	1.527
Initial MC (%):	29.7	Conversion Factor (burette reading to cm):	0.655
Final MC (%):	21.7	Remolded Oedometer Rigid Wall	

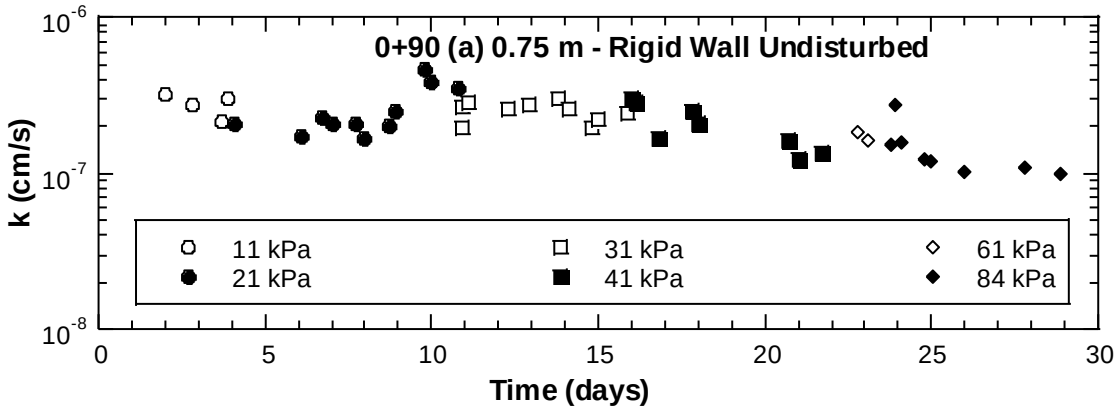


Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
2700	17.6	9.7	12.0	3.05	10.87	**3.19E-05**
32340	9.7	3.9	8.8	3.05	11.2	**4.04E-06**
22380	12.2	7.4	7.3	3.00	21.4	**3.17E-06**
58680	7.4	5.0	3.7	3.00	21.6	**9.61E-07**
5100	36.0	35.4	1.0	3.00	20.1	**5.12E-07**
121020	35.4	22.9	19.0	3.00	20.5	**5.10E-07**
48900	22.9	21.1	2.8	3.00	20.8	**2.43E-07**
93060	21.1	16.4	7.1	3.00	21.0	**3.81E-07**
79860	16.4	13.2	4.9	3.00	21.2	**3.87E-07**
110280	13.2	9.9	5.1	3.00	21.3	**3.75E-07**
75660	9.9	8.0	2.9	3.00	21.5	**4.01E-07**
8820	64.3	62.9	2.2	2.97	29.5	**3.63E-07**
249300	62.9	34.3	43.6	2.97	29.9	**3.43E-07**
160560	34.3	24.5	15.0	2.95	41.2	**2.94E-07**
84300	24.5	16.9	11.6	2.95	41.6	**6.16E-07**
265740	16.9	11.3	8.6	2.94	41.9	**2.13E-07**
8700	63.9	63.1	1.2	2.90	60.2	**1.96E-07**
93900	63.1	53.4	14.9	2.90	60.5	**2.46E-07**
96000	53.4	45.2	12.5	2.90	60.9	**2.39E-07**
99300	45.2	38.0	11.0	2.90	61.3	**2.41E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	**k (cm/s)**
343200	38.0	20.7	26.4	2.90	61.9	**2.44E-07**

Undisturbed Samples

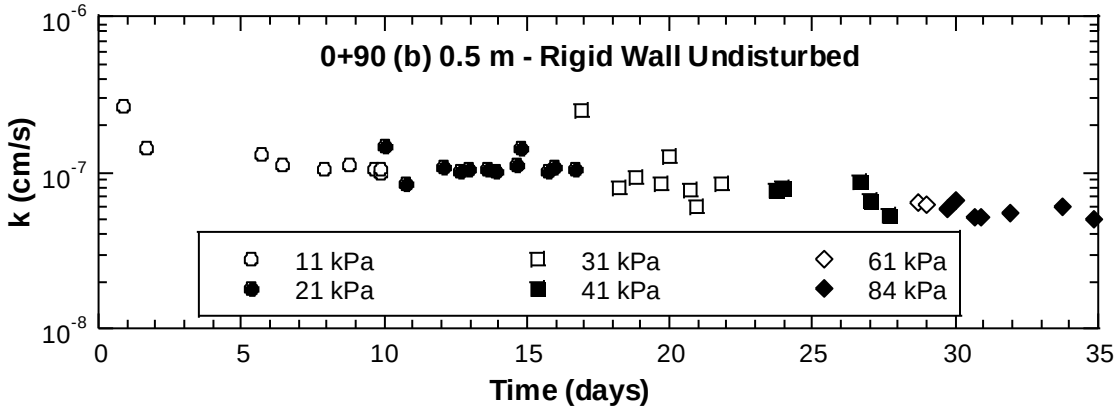
Sample Location:	0+90 (a)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	0.75 m	Burette Cross-Sectional Area (cm^2):	1.919
Initial MC (%):	14.9	Conversion Factor (burette reading to cm):	0.521
Final MC (%):	21.5	Undisturbed Oedometer Rigid Wall	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
9060	40.3	29.0	21.8	2.42	9.8	**5.26E-06**
61680	29.0	5.1	45.9	2.41	10.7	**4.08E-06**
21780	13.4	12.8	1.2	2.41	10.9	**3.15E-07**
70200	12.8	11.2	3.1	2.41	10.9	**2.76E-07**
80820	11.2	10.0	2.4	2.41	11.0	**2.11E-07**
15360	10.0	9.6	0.6	2.41	11.1	**2.99E-07**
7680	23.4	23.1	0.5	2.39	20.8	**2.08E-07**
109620	21.7	19.0	5.2	2.39	20.9	**1.73E-07**
54480	19.0	17.4	3.0	2.39	21.0	**2.25E-07**
20700	17.4	16.9	1.0	2.39	21.1	**2.09E-07**
59340	16.9	15.5	2.7	2.39	21.1	**2.09E-07**
25860	15.5	15.0	0.9	2.39	21.1	**1.69E-07**
64860	15.0	13.7	2.5	2.39	21.2	**1.99E-07**
10800	13.7	13.4	0.5	2.39	21.2	**2.53E-07**
79560	51.0	39.4	22.2	2.39	20.0	**4.61E-07**
21000	39.4	37.2	4.2	2.39	20.1	**3.87E-07**
63660	37.2	31.7	10.5	2.39	20.2	**3.56E-07**
1800	31.7	31.5	0.4	2.37	30.7	**5.18E-07**
3600	31.5	31.4	0.3	2.37	30.7	**1.95E-07**
7200	31.4	30.9	0.8	2.37	30.7	**2.62E-07**
14400	30.9	30.1	1.7	2.37	30.8	**2.85E-07**
99480	30.1	25.0	9.7	2.36	30.9	**2.61E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
54960	25.0	22.5	4.8	2.36	31.1	**2.70E-07**
76080	22.5	19.2	6.4	2.36	31.2	**2.97E-07**
24600	19.2	18.3	1.6	2.36	31.3	**2.55E-07**
60780	18.3	16.9	2.8	2.36	31.4	**1.92E-07**
20040	16.9	16.4	1.0	2.36	31.4	**2.21E-07**
78960	16.4	14.3	4.0	2.36	31.5	**2.43E-07**
5220	14.3	14.1	0.3	2.36	41.9	**2.97E-07**
3600	14.2	14.1	0.4	2.35	41.9	**2.86E-07**
53640	14.1	13.2	1.4	2.34	41.9	**1.69E-07**
66600	50.1	44.4	10.9	2.34	40.3	**2.52E-07**
23160	44.4	42.9	2.9	2.34	40.5	**2.09E-07**
233580	42.9	32.7	19.6	2.34	40.8	**1.62E-07**
27420	32.7	31.9	1.5	2.34	41.0	**1.23E-07**
60540	31.9	30.1	3.5	2.34	41.1	**1.36E-07**
63960	51.5	47.3	8.1	2.30	60.9	**1.83E-07**
28680	47.3	45.7	3.0	2.30	61.0	**1.60E-07**
59520	45.7	42.8	5.6	2.30	81.9	**1.52E-07**
1800	42.7	42.6	0.3	2.28	82.0	**2.77E-07**
14820	42.4	41.7	1.4	2.27	82.0	**1.59E-07**
57420	41.7	39.5	4.1	2.27	82.1	**1.24E-07**
16680	39.5	39.0	1.1	2.27	82.1	**1.19E-07**
86280	39.0	36.5	4.7	2.27	82.2	**1.02E-07**
158820	36.5	32.2	8.3	2.27	82.4	**1.08E-07**
98040	32.2	30.0	4.3	2.27	82.5	**9.96E-08**

Sample Location:	0+90 (b)	Sample Cross-Sectional Area (cm^2):	32.17
Depth:	0.5 m	Burette Cross-Sectional Area (cm^2):	1.901
Initial MC (%):	14.7	Conversion Factor (burette reading to cm):	0.526
Final MC (%):	22.0	Undisturbed Oedometer Rigid Wall	



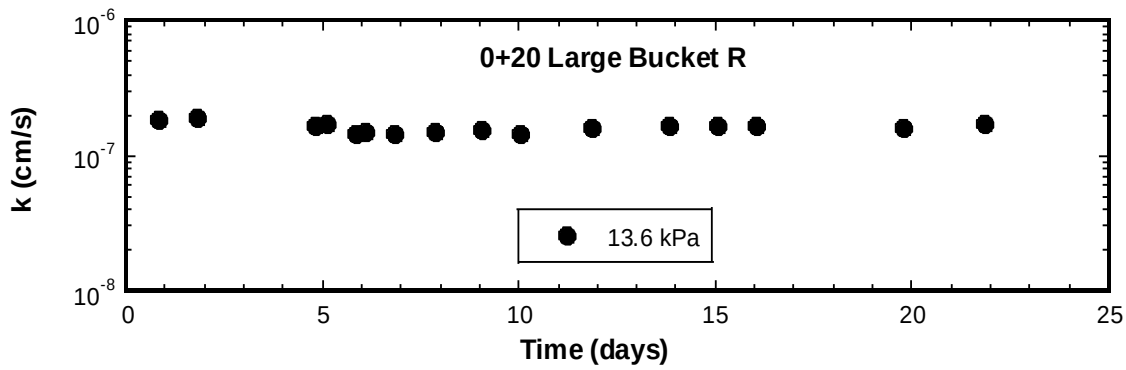
Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
70080	7.1	6.2	1.7	2.35	11.2	**2.67E-07**
9060	34.0	33.7	0.6	2.35	9.9	**1.43E-07**
61680	33.7	31.8	3.6	2.35	9.9	**1.30E-07**
346920	31.8	24.0	14.7	2.34	10.2	**1.11E-07**
105180	39.6	36.5	5.8	2.34	9.7	**1.06E-07**
21780	36.5	35.9	1.2	2.34	9.8	**1.11E-07**
70200	35.9	34.0	3.5	2.34	9.8	**1.04E-07**
80820	34.0	32.1	3.6	2.34	9.9	**9.81E-08**
15360	32.1	31.8	0.7	2.34	10.0	**1.04E-07**
7680	31.8	31.5	0.5	2.33	20.3	**1.49E-07**
61500	31.5	30.4	2.2	2.33	20.4	**8.37E-08**
109620	30.4	27.8	4.8	2.33	20.5	**1.09E-07**
54480	27.8	26.7	2.1	2.33	20.6	**1.02E-07**
20700	26.7	26.3	0.8	2.33	20.6	**1.05E-07**
59340	26.3	25.1	2.2	2.33	20.6	**1.04E-07**
25860	25.1	24.7	0.9	2.33	20.7	**1.01E-07**
64860	24.7	23.4	2.4	2.32	20.7	**1.11E-07**
10800	23.4	23.1	0.5	2.32	20.8	**1.44E-07**
79560	50.0	47.1	5.4	2.32	19.5	**1.01E-07**
21000	47.1	46.3	1.5	2.32	19.6	**1.10E-07**
63660	46.3	44.1	4.2	2.32	19.7	**1.05E-07**
7200	44.0	43.4	1.1	2.30	30.1	**2.50E-07**
99480	43.4	40.9	4.7	2.29	30.2	**7.99E-08**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Sample Length (cm)	$\sigma'_{avg.}$ (kPa)	k (cm/s)
54960	40.9	39.4	2.9	2.29	30.3	**9.37E-08**
76080	39.4	37.6	3.5	2.29	30.4	**8.52E-08**
24600	37.6	36.7	1.6	2.29	30.4	**1.25E-07**
60780	36.7	35.5	2.4	2.29	30.5	**7.80E-08**
20040	35.5	35.1	0.6	2.29	30.5	**6.05E-08**
78960	35.1	33.5	3.2	2.29	30.6	**8.42E-08**
5220	33.5	33.0	0.8	2.29	41.0	**3.29E-07**
3600	33.1	32.9	0.4	2.27	41.0	**2.38E-07**
66600	52.2	50.2	3.7	2.27	40.1	**7.66E-08**
23160	50.2	49.5	1.3	2.27	40.2	**7.94E-08**
233580	49.5	42.6	13.3	2.27	40.4	**8.74E-08**
27420	42.6	42.0	1.1	2.27	40.5	**6.70E-08**
60540	42.0	41.0	1.9	2.27	40.6	**5.34E-08**
63960	52.4	50.8	3.1	2.22	60.8	**6.49E-08**
28680	50.8	50.1	1.3	2.22	60.9	**6.21E-08**
59520	50.1	48.8	2.5	2.22	81.6	**5.87E-08**
14820	48.7	48.3	0.7	2.18	81.7	**6.60E-08**
57420	48.3	47.2	2.1	2.18	81.7	**5.19E-08**
16680	47.2	46.9	0.6	2.18	81.7	**5.18E-08**
86280	46.9	45.2	3.2	2.18	81.8	**5.46E-08**
158820	45.2	42.0	6.2	2.18	81.9	**6.07E-08**
98040	42.0	40.4	3.0	2.18	82.0	**5.04E-08**

Large Scale Rigid Wall

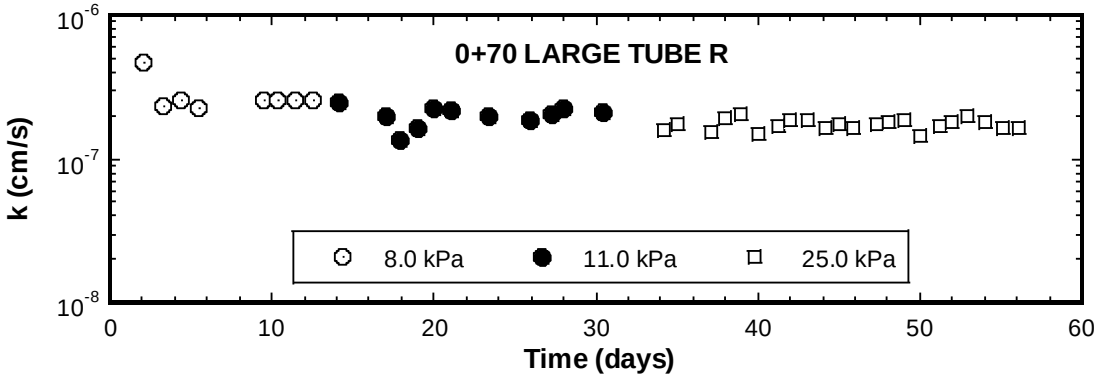
Remolded Samples

Sample Location:	0+20	Sample Cross-Sectional Area (cm^2):	562.0
Depth:	Surface	Final Sample Length (cm):	15.3
Sample Type:	Remolded	Burette Cross-Sectional Area (cm^2):	11.49
Initial MC (%):	25.4		
Final MC (%):	23.2	Remolded Large Scale Rigid Wall	Bucket



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
13920	72.9	72.5	4.6	15.9	13.5	**1.28E-07**
59280	72.5	70.2	26.4	15.9	13.5	**1.77E-07**
66000	73.2	70.5	31.0	15.9	13.5	**1.85E-07**
256560	70.5	62.1	96.5	15.8	13.8	**1.59E-07**
28020	62.1	61.2	10.3	15.8	14.0	**1.68E-07**
60540	61.2	59.6	18.4	15.7	14.1	**1.41E-07**
22680	59.6	59.0	6.9	15.7	14.1	**1.44E-07**
63900	59.0	57.4	18.4	15.7	14.2	**1.38E-07**
87480	57.4	55.2	25.3	15.7	14.3	**1.43E-07**
103860	76.8	73.1	42.5	15.7	13.3	**1.52E-07**
86220	73.1	70.4	31.0	15.6	13.5	**1.39E-07**
158340	70.4	65.1	60.9	15.6	13.7	**1.57E-07**
169080	66.3	60.9	62.1	15.5	13.9	**1.59E-07**
106020	60.9	57.7	36.8	15.5	14.1	**1.61E-07**
82320	57.7	55.3	27.6	15.5	14.3	**1.63E-07**
323160	74.8	63.7	127.6	15.4	13.6	**1.56E-07**
179640	63.7	57.9	66.7	15.3	14.1	**1.66E-07**

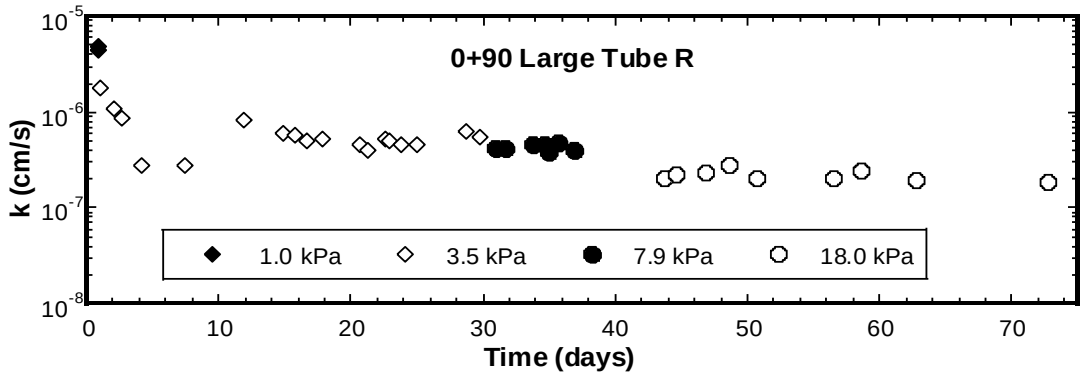
Sample Location:	0+70	**Sample Cross-Sectional Area (cm^2):**	**188.7**
Depth:	Surface	Final Sample Length (cm):	23.10
Sample Type:	Remolded	Burette Cross-Sectional Area (cm^2):	11.49
Initial MC (%):	30.5		
Final MC (%):	24.5	Remolded Large Scale Rigid Wall Tube	



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
14040	74.1	73.5	6.9	24.0	6.8	**8.47E-07**
164760	73.5	69.8	42.5	24.0	6.9	**4.58E-07**
102960	69.8	68.7	12.6	24.0	7.0	**2.26E-07**
95940	68.7	67.6	12.6	24.0	7.1	**2.46E-07**
99840	67.6	66.6	11.5	24.0	7.1	**2.18E-07**
342420	66.6	62.9	42.5	24.0	7.8	**2.44E-07**
76680	62.9	62.1	9.2	24.0	7.9	**2.44E-07**
95940	62.1	61.1	11.5	24.0	8.0	**2.47E-07**
86760	61.1	60.2	10.3	24.0	8.0	**2.50E-07**
86340	78.1	77.0	12.6	24.0	10.5	**2.40E-07**
251580	77.0	74.5	28.7	24.0	10.6	**1.92E-07**
76380	74.5	74.0	5.7	24.0	10.7	**1.29E-07**
99780	74.0	73.2	9.2	24.0	10.7	**1.59E-07**
82320	73.2	72.3	10.3	24.0	10.7	**2.20E-07**
87720	72.3	71.4	10.3	24.0	10.8	**2.09E-07**
205200	71.4	69.5	21.8	24.0	10.8	**1.92E-07**
222060	69.5	67.6	21.8	24.0	10.9	**1.82E-07**
109500	67.6	66.6	11.5	24.0	11.0	**1.99E-07**
71220	66.6	65.9	8.0	24.0	11.0	**2.17E-07**
209700	65.9	64.0	21.8	24.0	11.1	**2.04E-07**
70320	65.9	65.7	2.3	23.1	26.2	**6.08E-08**
100380	95.2	94.2	11.5	23.1	24.8	**1.48E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
74580	94.2	93.4	9.2	23.1	24.8	**1.61E-07**
181860	93.4	91.7	19.5	23.1	24.9	**1.42E-07**
68940	91.7	90.9	9.2	23.1	24.9	**1.79E-07**
77460	107.0	105.9	12.6	23.1	24.2	**1.88E-07**
95700	105.9	104.9	11.5	23.1	24.2	**1.40E-07**
111900	104.9	103.6	14.9	23.1	24.3	**1.57E-07**
63600	103.6	102.8	9.2	23.1	24.3	**1.72E-07**
87720	102.8	101.7	12.6	23.1	24.4	**1.73E-07**
92220	101.7	100.7	11.5	23.1	24.4	**1.51E-07**
78720	100.7	99.8	10.3	23.1	24.5	**1.60E-07**
74280	99.8	99.0	9.2	23.1	24.5	**1.52E-07**
124260	99.0	97.6	16.1	23.1	24.6	**1.61E-07**
61080	97.6	96.9	8.0	23.1	24.6	**1.66E-07**
83820	96.9	95.9	11.5	23.1	24.7	**1.74E-07**
88920	95.9	95.1	9.2	23.1	24.7	**1.33E-07**
105300	95.1	94.0	12.6	23.1	24.8	**1.55E-07**
63240	94.0	93.3	8.0	23.1	24.8	**1.66E-07**
82080	93.3	92.3	11.5	23.1	24.9	**1.85E-07**
91740	92.3	91.3	11.5	23.1	24.9	**1.67E-07**
101220	91.3	90.3	11.5	23.1	24.9	**1.53E-07**
82860	90.3	89.5	9.2	23.1	25.0	**1.51E-07**

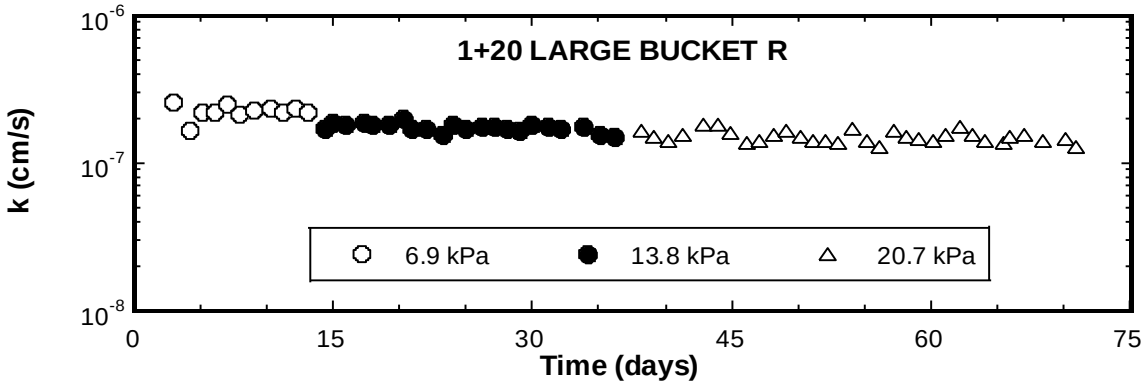
Sample Location:	0+90	**Sample Cross-Sectional Area (cm^2):**	**188.7**
Depth:	Surface	Final Sample Length (cm):	30.4
Sample Type:	Remolded	Burette Cross-Sectional Area (cm^2):	11.49
Initial MC (%):	35.9		
Final MC (%):	28.5	Remolded Large Scale Rigid Wall	Tube



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
78720	72.3	60.1	140.2	30.4	0.8	**4.35E-06**
3360	60.1	59.6	5.7	30.4	1.1	**4.60E-06**
7200	74.3	73.8	5.7	30.4	2.4	**1.74E-06**
84900	73.8	70.3	40.2	30.4	2.5	**1.06E-06**
59520	70.3	68.4	21.8	30.4	2.6	**8.52E-07**
124560	68.4	67.2	13.8	30.4	2.7	**2.63E-07**
278640	67.2	64.5	31.0	30.4	2.8	**2.73E-07**
177240	74.6	69.1	63.2	30.4	2.5	**8.00E-07**
253980	69.1	63.9	59.8	30.4	2.7	**5.70E-07**
78720	63.9	62.4	17.2	30.4	2.9	**5.59E-07**
81720	62.4	61.1	14.9	30.4	3.0	**4.77E-07**
96660	61.1	59.5	18.4	30.4	3.0	**5.08E-07**
249360	59.5	56.0	40.2	30.4	3.2	**4.50E-07**
50640	56.0	55.4	6.9	30.4	3.3	**3.94E-07**
120420	55.4	53.6	20.7	30.4	3.3	**5.08E-07**
21180	53.6	53.3	3.4	30.4	3.4	**4.91E-07**
70620	53.3	52.4	10.3	30.4	3.4	**4.47E-07**
32820	52.4	52.0	4.6	30.4	3.4	**4.32E-07**
311100	74.0	66.7	83.9	30.4	2.6	**6.18E-07**
95220	66.7	64.9	20.7	30.4	2.8	**5.32E-07**
20940	65.9	65.6	3.4	30.4	7.4	**4.03E-07**
62820	65.6	64.7	10.3	30.4	7.4	**4.07E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
185820	64.7	61.9	32.2	30.4	7.5	**4.41E-07**
75900	61.9	60.8	12.6	30.4	7.6	**4.37E-07**
25260	60.8	60.5	3.4	30.4	7.6	**3.63E-07**
60360	60.5	59.6	10.3	30.4	7.6	**4.60E-07**
98760	59.6	58.4	13.8	30.4	7.7	**3.81E-07**
497640	63.7	60.4	37.9	30.4	17.7	**1.98E-07**
87720	60.4	59.8	6.9	30.4	17.7	**2.11E-07**
189900	76.3	74.6	19.5	30.4	17.0	**2.20E-07**
158220	74.6	72.9	19.5	30.4	17.1	**2.70E-07**
169260	72.9	71.6	14.9	30.4	17.2	**1.97E-07**
511440	71.6	67.9	42.5	30.4	17.3	**1.92E-07**
179760	67.9	66.4	17.2	30.4	17.4	**2.30E-07**
354420	66.4	64.1	26.4	30.4	17.5	**1.84E-07**
864000	64.1	58.9	59.8	30.4	17.7	**1.81E-07**

Sample Location:	1+20	Sample Cross-Sectional Area (cm^2):	581.7
Depth:	Surface	Final Sample Length (cm):	15.73
Sample Type:	Remolded	Burette Cross-Sectional Area (cm^2):	11.49
Initial MC (%):	32.2		
Final MC (%):	25.6	Remolded Large Scale Rigid Wall	Bucket

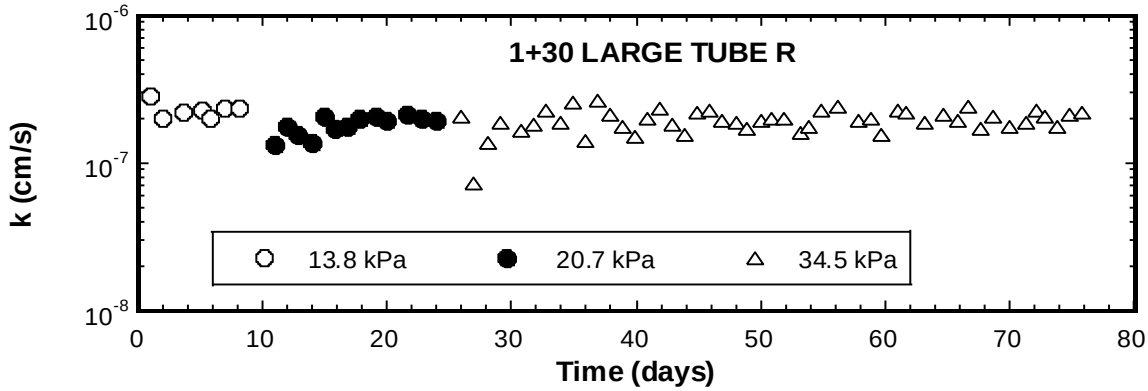


Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
85380	69.9	64.9	57.5	17.0	5.5	**2.92E-07**
61140	63.9	61.0	33.3	17.0	5.8	**2.55E-07**
98280	61.0	58.2	32.2	17.0	5.9	**1.61E-07**
85380	77.5	73.4	47.1	17.0	5.1	**2.14E-07**
76440	73.4	69.9	40.2	17.0	5.3	**2.15E-07**
91800	69.9	65.4	51.7	17.0	5.5	**2.44E-07**
79080	65.4	62.3	35.6	17.0	5.7	**2.06E-07**
93300	62.3	58.6	42.5	17.0	5.9	**2.20E-07**
99300	58.6	54.8	43.7	17.0	6.0	**2.27E-07**
88800	54.8	51.8	34.5	17.0	6.2	**2.13E-07**
80280	51.8	49.0	32.2	17.0	6.4	**2.33E-07**
83700	49.0	46.4	29.9	17.0	6.5	**2.19E-07**
23760	78.4	77.4	11.5	15.7	14.0	**1.68E-07**
60000	77.4	74.7	31.0	15.7	14.1	**1.84E-07**
75540	74.7	71.5	36.8	15.7	14.2	**1.80E-07**
121800	71.5	66.5	57.5	15.7	14.4	**1.85E-07**
55140	66.5	64.4	24.1	15.7	14.6	**1.81E-07**
106440	64.4	60.6	43.7	15.7	14.7	**1.78E-07**
93840	60.6	57.1	40.2	15.7	14.9	**1.97E-07**
58980	57.1	55.3	20.7	15.7	15.1	**1.69E-07**
86580	55.3	52.8	28.7	15.7	15.2	**1.66E-07**
104820	78.4	74.4	46.0	15.7	14.0	**1.55E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
79560	74.4	71.1	37.9	15.7	14.2	**1.77E-07**
72360	71.1	68.4	31.0	15.7	14.4	**1.66E-07**
105300	68.4	64.5	44.8	15.7	14.5	**1.73E-07**
84000	64.5	61.5	34.5	15.7	14.7	**1.76E-07**
75240	61.5	59.0	28.7	15.7	14.9	**1.71E-07**
90000	59.0	56.3	31.0	15.7	15.0	**1.62E-07**
74520	56.3	53.9	27.6	15.7	15.1	**1.82E-07**
116580	53.9	50.5	39.1	15.7	15.3	**1.74E-07**
72480	76.0	73.1	33.3	15.7	14.1	**1.67E-07**
149760	73.1	67.2	67.8	15.7	14.4	**1.75E-07**
99960	67.2	64.0	36.8	15.7	14.6	**1.52E-07**
96180	64.1	61.2	33.3	15.7	21.2	**1.50E-07**
75360	59.8	57.5	26.4	15.7	21.4	**1.62E-07**
84240	72.7	69.8	33.3	15.7	20.8	**1.50E-07**
90660	69.8	67.0	32.2	15.7	20.9	**1.40E-07**
99060	67.0	63.8	36.8	15.7	21.1	**1.54E-07**
134640	63.8	59.0	55.2	15.7	21.3	**1.81E-07**
88140	59.0	56.1	33.3	15.7	21.5	**1.78E-07**
84660	56.1	53.7	27.6	15.7	21.6	**1.61E-07**
105180	78.3	74.8	40.2	15.7	20.5	**1.35E-07**
87060	74.8	71.9	33.3	15.7	20.6	**1.41E-07**
88260	71.9	68.8	35.6	15.7	20.8	**1.55E-07**
86040	68.8	65.8	34.5	15.7	21.0	**1.61E-07**
85320	65.8	63.2	29.9	15.7	21.1	**1.47E-07**
87000	63.2	60.8	27.6	15.7	21.2	**1.38E-07**
87180	60.8	58.5	26.4	15.7	21.3	**1.37E-07**
78900	58.5	56.5	23.0	15.7	21.5	**1.37E-07**
91800	56.5	53.8	31.0	15.7	21.6	**1.66E-07**
87060	77.5	74.5	34.5	15.7	20.5	**1.41E-07**
86640	74.5	71.9	29.9	15.7	20.7	**1.27E-07**
87660	71.9	68.7	36.8	15.7	20.8	**1.61E-07**
83940	68.7	66.0	31.0	15.7	21.0	**1.48E-07**
86880	66.0	63.4	29.9	15.7	21.1	**1.44E-07**
89520	63.4	60.9	28.7	15.7	21.2	**1.40E-07**
84120	60.9	58.4	28.7	15.7	21.3	**1.55E-07**
87180	58.4	55.6	32.2	15.7	21.5	**1.75E-07**

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	**k (cm/s)**
85260	55.6	53.3	26.4	15.7	21.6	**1.54E-07**
86220	77.8	74.8	34.5	15.7	20.5	**1.42E-07**
110940	74.8	71.3	40.2	15.7	20.7	**1.34E-07**
50280	71.3	69.6	19.5	15.7	20.8	**1.49E-07**
78780	106.5	102.5	46.0	15.7	19.1	**1.51E-07**
122760	102.5	97.0	63.2	15.7	19.3	**1.40E-07**
143700	97.0	90.7	72.4	15.7	19.6	**1.45E-07**
75840	90.7	87.9	32.2	15.7	19.8	**1.29E-07**

Sample Location:	1+30	Sample Cross-Sectional Area (cm^2):	188.7
Depth:	Surface	Final Sample Length (cm):	31.5
Sample Type:	Remolded	Burette Cross-Sectional Area (cm^2):	11.49
Initial MC (%):	36.6		
Final MC (%):	27.5	Remolded Large Scale Rigid Wall	Tube



Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	k (cm/s)
83880	71.1	70.3	9.2	35.00	13.91	2.88E-07
90180	70.3	69.7	6.9	35.00	13.94	2.03E-07
75660	70.1	69.6	6.3	35.00	13.95	2.22E-07
121800	69.6	68.7	10.3	35.00	13.99	2.28E-07
55080	68.7	68.3	4.0	35.00	14.02	1.98E-07
106500	68.3	67.5	9.2	35.00	14.05	2.36E-07
93720	67.5	66.8	8.0	35.00	14.09	2.37E-07
104940	68.7	68.2	5.7	31.50	22.59	1.34E-07
79560	68.2	67.7	5.7	31.50	22.61	1.77E-07
72420	67.7	67.3	4.6	31.50	22.64	1.57E-07
105240	67.3	66.8	5.7	31.50	22.66	1.36E-07
84060	66.8	66.2	6.9	31.50	22.69	2.06E-07
75120	66.2	65.8	5.2	31.50	22.71	1.74E-07
90000	65.8	65.2	6.3	31.50	22.74	1.79E-07
74460	65.2	64.7	5.7	31.50	22.77	1.98E-07
116700	64.7	63.9	9.2	31.50	22.80	2.05E-07
77460	63.9	63.4	5.7	31.50	22.83	1.95E-07
150120	63.4	62.4	12.1	31.50	22.87	2.13E-07
99960	62.4	61.7	7.5	31.50	22.91	2.01E-07
96180	61.7	61.1	6.9	31.50	34.51	1.95E-07
75360	62.4	61.9	5.7	31.50	34.47	2.05E-07
84300	61.9	61.7	2.3	31.50	34.49	7.37E-08

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	k (cm/s)
90720	61.7	61.3	4.6	31.50	34.50	1.38E-07
98940	61.3	60.7	6.9	31.50	34.53	1.91E-07
134580	60.7	60.0	8.0	31.50	34.56	1.65E-07
88260	60.0	59.5	5.7	31.50	34.59	1.82E-07
84420	59.5	58.9	6.9	31.50	34.62	2.30E-07
105060	77.8	77.0	9.2	31.50	33.69	1.89E-07
87060	77.0	76.1	10.3	31.50	33.73	2.59E-07
88260	76.1	75.6	5.7	31.50	33.77	1.43E-07
86040	75.6	74.7	10.3	31.50	33.81	2.67E-07
85320	74.7	74.0	8.0	31.50	33.85	2.12E-07
87060	74.0	73.4	6.9	31.50	33.88	1.79E-07
87180	73.4	72.9	5.7	31.50	33.91	1.50E-07
78840	72.9	72.3	6.9	31.50	33.94	2.01E-07
91800	72.3	71.5	9.2	31.50	33.97	2.33E-07
87360	71.5	70.9	6.9	31.50	34.01	1.85E-07
86700	70.9	70.4	5.7	31.50	34.03	1.57E-07
87660	70.4	69.7	8.0	31.50	34.07	2.19E-07
83880	69.7	69.0	8.0	31.50	34.10	2.31E-07
86940	69.0	68.4	6.9	31.50	34.13	1.93E-07
89520	68.4	67.8	6.9	31.50	34.16	1.89E-07
84120	67.8	67.3	5.7	31.50	34.19	1.69E-07
87180	67.3	66.7	6.9	31.50	34.22	1.97E-07
85260	66.7	66.1	6.9	31.50	34.25	2.03E-07
86400	66.1	65.5	6.9	31.50	34.28	2.02E-07
110820	65.5	64.9	6.9	31.50	34.31	1.59E-07
50340	64.9	64.6	3.4	31.50	34.34	1.77E-07
79140	106.3	105.3	11.5	31.50	32.24	2.29E-07
122820	105.3	103.7	18.4	31.50	32.31	2.39E-07
143640	103.7	102.2	17.2	31.50	32.39	1.95E-07
75780	102.2	101.4	9.2	31.50	32.45	1.99E-07
84120	101.4	100.7	8.0	31.50	32.48	1.58E-07
102180	100.7	99.5	13.8	31.50	32.53	2.25E-07
70380	99.5	98.7	9.2	31.50	32.58	2.20E-07
123240	98.7	97.5	13.8	31.50	32.64	1.90E-07
130620	97.5	96.1	16.1	31.50	32.70	2.12E-07
91920	96.1	95.2	10.3	31.50	32.76	1.96E-07

Test Elapsed Time (seconds)	Initial Head (cm)	Final Head (cm)	Flow (cm^3)	Estimated Sample Length (cm)	Estimated $\sigma'_{avg.}$ (kPa)	k (cm/s)
84480	95.2	94.2	11.5	31.50	32.81	2.40E-07
84660	94.2	93.5	8.0	31.50	32.85	1.69E-07
88200	93.5	92.6	10.3	31.50	32.89	2.10E-07
104700	92.6	91.7	10.3	31.50	32.94	1.79E-07
112260	91.7	90.7	11.5	31.50	32.99	1.87E-07
84360	90.7	89.8	10.3	31.50	33.04	2.27E-07
51600	89.8	89.3	5.7	31.50	33.07	2.08E-07
84720	89.3	88.6	8.0	31.50	33.10	1.78E-07
91020	88.6	87.7	10.3	31.50	33.14	2.15E-07
80700	87.7	86.9	9.2	31.50	33.19	2.18E-07

APPENDIX B

Results of Slug Tests

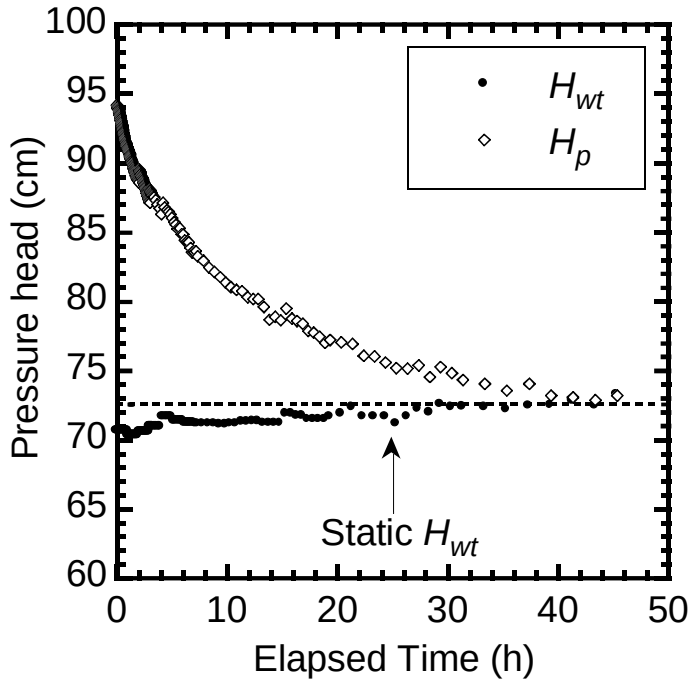
Well #	Well Location	Depth (m)	# of Slug Tests
1	0+31.6	3.0	3
2	0+32.3	6.0	4
3	0+33.0	4.5	4
4	0+56.3	4.5	4
5	0+57.0	6.0	5
6	0+57.6	3.0	4
7	0+78.9	3.0	3
8	0+79.3	4.0	3
9	0+80.0	5.0	7
10	1+21.2	3.0	4
11	1+21.8	6.0	3
12	1+22.4	4.5	3

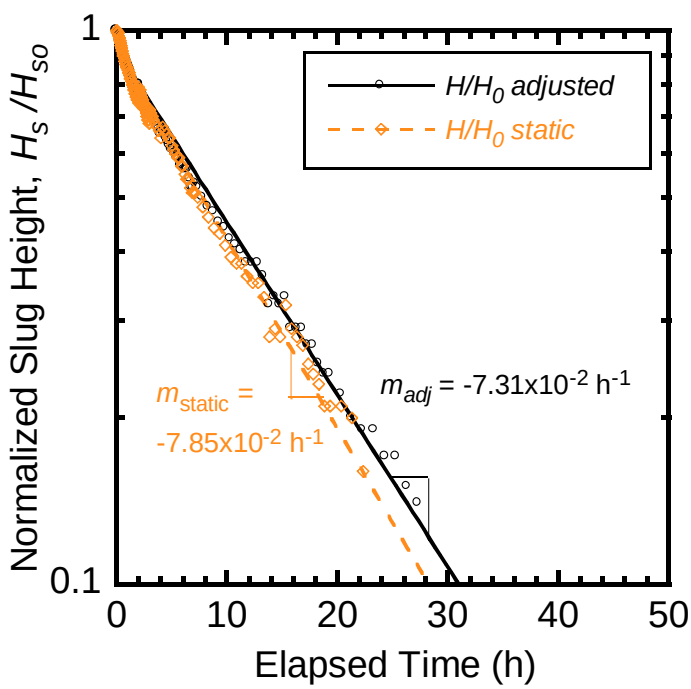
Well #	Location	Depth (m)	Test #	Date Started	Rate of Rise/Fall	Initial Slug Height (cm)	*m* (h^{-1})	*k* (cm/s)
1	0+31.6	3.0	1	11/1/2017	Fall	24.5	-7.31E-02	**6.00E-07**
1	0+31.6	3.0	2	11/14/2017	Fall	19.1	-5.97E-02	**4.90E-07**
1	0+31.6	3.0	3	1/19/2018	Rise	22.3	-1.05E-01	**8.61E-07**
2	0+32.3	6.0	1	10/3/2017	Fall	50.2	-2.84E-02	**2.33E-07**
2	0+32.3	6.0	2	10/11/2017	Fall	42.1	-2.80E-02	**2.30E-07**
2	0+32.3	6.0	3	11/29/2017	Fall	51.0	-2.74E-02	**2.25E-07**
2	0+32.3	6.0	4	1/25/2018	Rise	45.7	-2.53E-02	**2.08E-07**
3	0+33.0	4.5	1	10/20/17	Fall	34.3	-3.01E-02	**2.47E-07**
3	0+33.0	4.5	2	11/8/17	Fall	41.3	-3.03E-02	**2.48E-07**
3	0+33.0	4.5	3	12/8/17	Fall	34.3	-2.70E-02	**2.22E-07**
3	0+33.0	4.5	4	4/11/18	-	44.0	-3.07E-02	**2.52E-07**
4	0+56.3	4.5	1	10/21/17	Fall	47.5	-3.61E-02	**2.97E-07**
4	0+56.3	4.5	2	11/1/2017	Fall	37.6	-3.12E-02	**2.56E-07**
4	0+56.3	4.5	3	12/8/2017	Fall	43.1	-2.53E-02	**2.08E-07**
4	0+56.3	4.5	4	4/11/2018	Rise	66.8	-3.24E-02	**2.66E-07**
5	0+57.0	6.0	1	10/3/17	Rise	54.0	-2.12E-02	**1.74E-07**
5	0+57.0	6.0	2	10/11/17	Fall	40.2	-1.61E-02	**1.32E-07**
5	0+57.0	6.0	3	10/20/17	Rise	54.9	-1.97E-02	**1.61E-07**
5	0+57.0	6.0	4	11/29/17	Fall	68.7	-1.83E-02	**1.50E-07**
5	0+57.0	6.0	5	1/25/18	Rise	57.7	-1.85E-02	**1.52E-07**

Well #	Location	Depth (m)	Test #	Date Started	Rate of Rise/Fall	Initial Slug Height (cm)	*m* (h^{-1})	*k* (cm/s)
6	0+57.6	3.0	1	11/1/17	Fall	24.3	-3.24E-02	**2.66E-07**
6	0+57.6	3.0	2	11/14/17	Rise	27.6	-3.99E-02	**3.28E-07**
6	0+57.6	3.0	3	11/21/17	Rise	22.2	-3.20E-02	**2.62E-07**
6	0+57.6	3	5	12/19/17	Fall	26.7	-3.33E-02	**2.74E-07**
7	0+78.9	3.0	1	9/25/17	Rise	37.5	-3.55E-02	**2.92E-07**
7	0+78.9	3.0	2	10/3/17	Fall	35.7	-2.27E-02	**1.86E-07**
7	0+78.9	3.0	3	4/11/18	Rise	46.4	-3.10E-02	**2.54E-07**
8	0+79.3	4.00	1	9/20/17	Rise	62.9	-2.98E-02	**2.45E-07**
8	0+79.3	4.00	2	10/11/17	Fall	44.9	-2.39E-02	**1.96E-07**
8	0+79.3	4.00	3	3/11/18	Fall	60.5	-2.61E-02	**2.14E-07**
9	0+80	5.0	1	8/8/17	Rise	122.0	-3.59E-02	**2.95E-07**
9	0+80	5.0	2	8/11/17	Rise	106.7	-2.75E-02	**2.26E-07**
9	0+80	5.0	3	8/16/17	Rise	111.6	-2.50E-02	**2.05E-07**
9	0+80	5.0	4	8/25/17	Fall	30.5	-3.60E-02	**2.95E-07**
9	0+80	5.0	5	8/29/17	Rise	65.9	-2.71E-02	**2.22E-07**
9	0+80	5.0	6	9/4/17	Fall	28.6	-2.97E-02	**2.44E-07**
9	0+80	5.0	7	11/8/17	Fall	49.4	-4.00E-02	**3.28E-07**
10	1+21.15	3.0	1	11/14/2017	Fall	36.9	-1.95E-02	**1.60E-07**
10	1+21.15	3.0	2	11/21/2017	Rise	34.5	-2.01E-02	**1.65E-07**
10	1+21.15	3.0	3	12/12/2017	Fall	32.3	-1.97E-02	**1.62E-07**
10	1+21.15	3.0	4	12/19/2017	Fall	32.8	-1.91E-02	**1.57E-07**

Well #	Location	Depth (m)	Test #	Date Started	Rate of Rise/Fall	Initial Slug Height (cm)	*m* (h^{-1})	*k* (cm/s)
11	1+21.75	6.0	1	11/8/2017	Fall	52.1	-3.41E-02	**2.80E-07**
11	1+21.75	6.0	2	11/29/2017	Fall	60.7	-3.35E-02	**2.75E-07**
11	1+21.75	6.0	3	1/25/2018	Rise	82.6	-2.54E-02	**2.09E-07**
12	1+22.40	4.5	1	11/21/2017	Fall	46.9	-3.43E-02	**2.81E-07**
12	1+22.40	4.5	2	12/8/2017	Fall	52.5	-3.40E-02	**2.79E-07**
12	1+22.41	4.5	3	3/11/2018	Fall	53.9	-4.14E-02	**3.40E-07**

Test Location (m)	**0+31.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	1
Well #	1	**Test Type**	Rate of Fall
Start Date of Test	11/1/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	70.6
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	24.5/22.5
k_{adj} (cm/s)	6.00E-07	**k_{static} (cm/s)**	6.44E-07





0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	94.16	70.61	24.49	1.00	24.49	1.00
0:00:30	94.18	70.61	24.51	1.00	24.51	1.00
0:01:00	94.14	70.61	24.47	1.00	24.47	1.00
0:01:30	94.08	70.61	24.41	1.00	24.41	1.00
0:02:00	94.05	70.61	24.37	1.00	24.37	1.00
0:02:30	94.01	70.61	24.33	0.99	24.33	0.99
0:03:00	93.97	70.61	24.29	0.99	24.29	0.99
0:03:30	93.97	70.61	24.29	0.99	24.29	0.99
0:04:00	93.99	70.61	24.30	0.99	24.30	0.99
0:04:30	93.95	70.61	24.27	0.99	24.27	0.99
0:05:00	93.97	70.61	24.29	0.99	24.29	0.99
0:05:30	93.93	70.61	24.25	0.99	24.25	0.99
0:06:00	93.93	70.61	24.25	0.99	24.25	0.99
0:06:30	93.97	70.61	24.29	0.99	24.29	0.99
0:07:00	93.95	70.61	24.27	0.99	24.27	0.99
0:07:30	93.95	70.61	24.27	0.99	24.27	0.99
0:08:00	93.93	70.61	24.25	0.99	24.25	0.99
0:08:30	93.92	70.61	24.24	0.99	24.24	0.99
0:09:00	93.92	70.61	24.24	0.99	24.24	0.99
0:09:30	93.90	70.61	24.21	0.99	24.21	0.99
0:10:00	93.86	70.61	24.18	0.99	24.18	0.99
0:10:30	93.81	70.61	24.12	0.98	24.12	0.98
0:11:00	93.79	70.61	24.10	0.98	24.10	0.98
0:11:30	93.73	70.61	24.04	0.98	24.04	0.98
0:12:00	93.68	70.61	23.98	0.98	23.98	0.98
0:12:30	93.63	70.61	23.94	0.98	23.94	0.98
0:13:00	93.60	70.61	23.90	0.98	23.90	0.98
0:13:30	93.57	70.61	23.87	0.97	23.87	0.97
0:14:00	93.58	70.61	23.88	0.98	23.88	0.98
0:14:30	93.54	70.61	23.85	0.97	23.85	0.97
0:15:00	93.54	70.61	23.85	0.97	23.85	0.97
0:15:30	93.49	70.61	23.79	0.97	23.79	0.97
0:16:00	93.47	70.61	23.76	0.97	23.76	0.97
0:16:30	93.47	70.61	23.76	0.97	23.76	0.97
0:17:00	93.39	70.61	23.68	0.97	23.68	0.97
0:17:30	93.38	70.61	23.67	0.97	23.67	0.97
0:18:00	93.33	70.61	23.63	0.96	23.63	0.96
0:18:30	93.30	70.61	23.59	0.96	23.59	0.96
0:19:00	93.26	70.61	23.55	0.96	23.55	0.96
0:19:30	93.22	70.61	23.51	0.96	23.51	0.96
0:20:00	93.19	70.61	23.48	0.96	23.48	0.96
0:20:30	93.17	70.61	23.45	0.96	23.45	0.96
0:21:00	93.09	70.61	23.37	0.95	23.37	0.95
0:21:30	93.09	70.61	23.37	0.95	23.37	0.95
0:22:00	93.08	70.61	23.36	0.95	23.36	0.95
0:22:30	93.04	70.61	23.32	0.95	23.32	0.95

0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:23:00	92.98	70.61	23.26	0.95	23.26	0.95
0:23:30	92.93	70.61	23.20	0.95	23.20	0.95
0:24:00	92.88	70.61	23.16	0.95	23.16	0.95
0:24:30	92.85	70.61	23.12	0.94	23.12	0.94
0:25:00	92.83	70.61	23.10	0.94	23.10	0.94
0:25:30	92.82	70.61	23.09	0.94	23.09	0.94
0:26:00	92.82	70.61	23.09	0.94	23.09	0.94
0:26:30	92.82	70.61	23.09	0.94	23.09	0.94
0:27:00	92.77	70.61	23.04	0.94	23.04	0.94
0:27:30	92.74	70.61	23.01	0.94	23.01	0.94
0:28:00	92.70	70.61	22.97	0.94	22.97	0.94
0:28:30	92.72	70.61	22.98	0.94	22.98	0.94
0:29:00	92.68	70.61	22.95	0.94	22.95	0.94
0:29:30	92.63	70.61	22.89	0.93	22.89	0.93
0:30:00	92.60	70.61	22.87	0.93	22.87	0.93
0:30:30	92.57	70.61	22.83	0.93	22.83	0.93
0:31:00	92.52	70.61	22.78	0.93	22.78	0.93
0:31:30	92.49	70.61	22.75	0.93	22.75	0.93
0:32:00	92.46	70.61	22.72	0.93	22.72	0.93
0:32:30	92.41	70.61	22.66	0.93	22.66	0.93
0:33:00	92.36	70.61	22.62	0.92	22.62	0.92
0:33:30	92.33	70.61	22.58	0.92	22.58	0.92
0:34:00	92.25	70.61	22.50	0.92	22.50	0.92
0:34:30	92.23	70.61	22.48	0.92	22.48	0.92
0:35:00	92.23	70.61	22.48	0.92	22.48	0.92
0:35:30	92.20	70.61	22.44	0.92	22.44	0.92
0:36:00	92.15	70.61	22.40	0.91	22.40	0.91
0:36:30	92.10	70.61	22.34	0.91	22.34	0.91
0:37:00	92.01	70.61	22.25	0.91	22.25	0.91
0:37:30	92.03	70.61	22.27	0.91	22.27	0.91
0:38:00	92.01	70.61	22.25	0.91	22.25	0.91
0:38:30	91.96	70.61	22.20	0.91	22.20	0.91
0:39:00	91.91	70.61	22.14	0.90	22.14	0.90
0:39:30	91.90	70.61	22.13	0.90	22.13	0.90
0:40:00	91.88	70.61	22.11	0.90	22.11	0.90
0:40:30	91.80	70.61	22.03	0.90	22.03	0.90
0:41:00	91.77	70.61	22.00	0.90	22.00	0.90
0:41:30	91.74	70.61	21.97	0.90	21.97	0.90
0:42:00	91.71	70.61	21.94	0.90	21.94	0.90
0:42:30	91.67	70.61	21.89	0.89	21.89	0.89
0:43:00	91.63	70.61	21.86	0.89	21.86	0.89
0:43:30	91.60	70.61	21.82	0.89	21.82	0.89
0:44:00	91.60	70.61	21.82	0.89	21.82	0.89
0:44:30	91.55	70.61	21.78	0.89	21.78	0.89
0:45:00	91.58	70.61	21.80	0.89	21.80	0.89
0:45:30	91.53	70.61	21.75	0.89	21.75	0.89
0:46:00	91.55	70.61	21.78	0.89	21.78	0.89
0:46:30	91.52	70.61	21.74	0.89	21.74	0.89

0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:47:00	91.50	70.61	21.72	0.89	21.72	0.89
0:47:30	91.47	70.61	21.68	0.89	21.68	0.89
0:48:00	91.44	70.61	21.66	0.88	21.66	0.88
0:48:30	91.42	70.61	21.64	0.88	21.64	0.88
0:49:00	91.41	70.61	21.63	0.88	21.63	0.88
0:49:30	91.39	70.61	21.61	0.88	21.61	0.88
0:50:00	91.36	70.61	21.57	0.88	21.57	0.88
0:50:30	91.34	70.61	21.55	0.88	21.55	0.88
0:51:00	91.31	70.61	21.52	0.88	21.52	0.88
0:51:30	91.31	70.61	21.52	0.88	21.52	0.88
0:52:00	91.26	70.61	21.47	0.88	21.47	0.88
0:52:30	91.22	70.61	21.43	0.88	21.43	0.88
0:53:00	91.20	70.61	21.41	0.87	21.41	0.87
0:53:30	91.13	70.61	21.33	0.87	21.33	0.87
0:54:00	91.15	70.61	21.35	0.87	21.35	0.87
0:54:30	91.11	70.61	21.32	0.87	21.32	0.87
0:55:00	91.09	70.61	21.30	0.87	21.30	0.87
0:55:30	91.12	70.61	21.33	0.87	21.33	0.87
0:56:00	91.09	70.61	21.29	0.87	21.29	0.87
0:56:30	91.09	70.61	21.30	0.87	21.30	0.87
0:57:00	91.09	70.61	21.30	0.87	21.30	0.87
0:57:30	91.05	70.61	21.25	0.87	21.25	0.87
0:58:00	91.07	70.61	21.27	0.87	21.27	0.87
0:58:30	91.04	70.61	21.24	0.87	21.24	0.87
0:59:00	90.99	70.61	21.19	0.87	21.19	0.87
0:59:30	90.98	70.61	21.18	0.86	21.18	0.86
1:00:00	90.96	70.32	21.46	0.88	21.16	0.86
1:00:30	90.93	70.32	21.43	0.87	21.12	0.86
1:01:00	90.93	70.32	21.43	0.87	21.12	0.86
1:01:30	90.88	70.32	21.38	0.87	21.08	0.86
1:02:00	90.86	70.32	21.36	0.87	21.05	0.86
1:02:30	90.83	70.32	21.32	0.87	21.02	0.86
1:03:00	90.80	70.32	21.30	0.87	21.00	0.86
1:03:30	90.79	70.32	21.29	0.87	20.99	0.86
1:04:00	90.79	70.32	21.29	0.87	20.99	0.86
1:04:30	90.77	70.32	21.27	0.87	20.96	0.86
1:05:00	90.74	70.32	21.23	0.87	20.93	0.85
1:05:30	90.74	70.32	21.23	0.87	20.93	0.85
1:06:00	90.72	70.32	21.21	0.87	20.91	0.85
1:06:30	90.69	70.32	21.19	0.87	20.88	0.85
1:07:00	90.68	70.32	21.17	0.86	20.87	0.85
1:07:30	90.64	70.32	21.13	0.86	20.82	0.85
1:08:00	90.66	70.32	21.15	0.86	20.85	0.85
1:08:30	90.61	70.32	21.09	0.86	20.79	0.85
1:09:00	90.55	70.32	21.04	0.86	20.73	0.85
1:09:30	90.55	70.32	21.04	0.86	20.73	0.85
1:10:00	90.53	70.32	21.01	0.86	20.71	0.85
1:10:30	90.47	70.32	20.96	0.86	20.65	0.84

0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:11:00	90.47	70.32	20.96	0.86	20.65	0.84
1:11:30	90.43	70.32	20.91	0.85	20.61	0.84
1:12:00	90.42	70.32	20.90	0.85	20.60	0.84
1:12:30	90.37	70.32	20.85	0.85	20.55	0.84
1:13:00	90.37	70.32	20.85	0.85	20.55	0.84
1:13:30	90.34	70.32	20.82	0.85	20.51	0.84
1:14:00	90.36	70.32	20.84	0.85	20.54	0.84
1:14:30	90.36	70.32	20.84	0.85	20.54	0.84
1:15:00	90.34	70.32	20.82	0.85	20.51	0.84
1:15:30	90.31	70.32	20.78	0.85	20.48	0.84
1:16:00	90.29	70.32	20.76	0.85	20.46	0.84
1:16:30	90.26	70.32	20.74	0.85	20.43	0.83
1:17:00	90.26	70.32	20.74	0.85	20.43	0.83
1:17:30	90.23	70.32	20.70	0.85	20.40	0.83
1:18:00	90.20	70.32	20.67	0.84	20.37	0.83
1:18:30	90.23	70.32	20.70	0.85	20.40	0.83
1:19:00	90.17	70.32	20.65	0.84	20.34	0.83
1:19:30	90.17	70.32	20.65	0.84	20.34	0.83
1:20:30	90.15	70.32	20.62	0.84	20.32	0.83
1:21:30	90.12	70.32	20.59	0.84	20.28	0.83
1:22:30	90.04	70.32	20.51	0.84	20.20	0.83
1:23:30	89.99	70.32	20.45	0.84	20.15	0.82
1:24:30	89.94	70.32	20.40	0.83	20.10	0.82
1:25:30	89.89	70.32	20.35	0.83	20.04	0.82
1:26:30	89.88	70.32	20.34	0.83	20.03	0.82
1:27:30	89.80	70.32	20.26	0.83	19.95	0.81
1:28:30	89.78	70.32	20.23	0.83	19.93	0.81
1:29:30	89.74	70.32	20.20	0.82	19.89	0.81
1:30:30	89.69	70.32	20.14	0.82	19.84	0.81
1:31:30	89.63	70.32	20.08	0.82	19.78	0.81
1:32:30	89.58	70.32	20.03	0.82	19.72	0.81
1:33:30	89.56	70.32	20.00	0.82	19.70	0.80
1:34:30	89.50	70.32	19.95	0.81	19.64	0.80
1:35:30	89.46	70.32	19.90	0.81	19.60	0.80
1:36:30	89.40	70.32	19.84	0.81	19.54	0.80
1:37:30	89.42	70.32	19.86	0.81	19.56	0.80
1:38:30	89.35	70.32	19.78	0.81	19.48	0.80
1:39:30	89.33	70.32	19.76	0.81	19.46	0.79
1:40:30	89.27	70.32	19.70	0.80	19.40	0.79
1:41:30	89.24	70.32	19.67	0.80	19.37	0.79
1:42:30	89.16	70.32	19.59	0.80	19.29	0.79
1:43:30	89.13	70.32	19.56	0.80	19.25	0.79
1:44:30	89.10	70.32	19.53	0.80	19.23	0.79
1:45:30	89.09	70.32	19.52	0.80	19.22	0.78
1:46:30	89.07	70.32	19.50	0.80	19.19	0.78
1:47:30	89.05	70.32	19.47	0.80	19.17	0.78
1:48:30	88.99	70.32	19.42	0.79	19.11	0.78
1:49:30	88.96	70.32	19.38	0.79	19.08	0.78

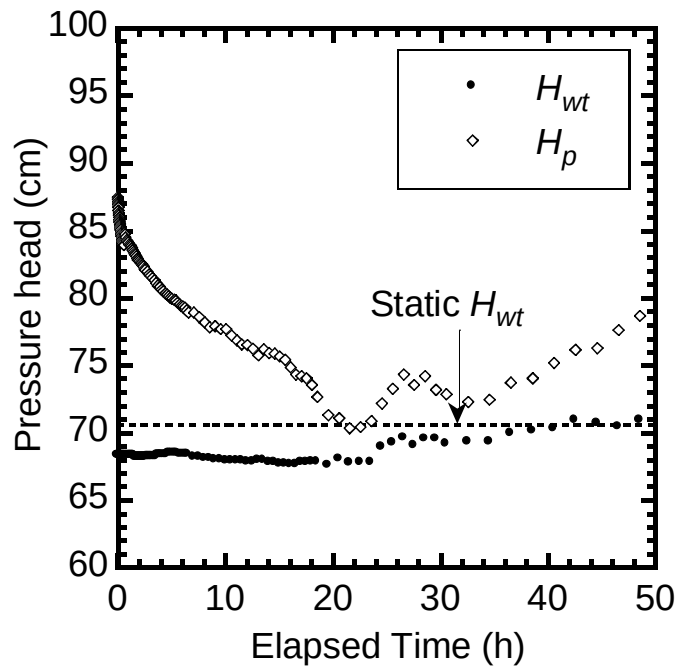
0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:50:30	88.88	70.32	19.30	0.79	19.00	0.78
1:51:30	88.83	70.32	19.24	0.79	18.94	0.77
1:52:30	88.81	70.32	19.22	0.78	18.92	0.77
1:53:30	88.81	70.32	19.22	0.78	18.92	0.77
1:54:30	88.78	70.32	19.20	0.78	18.90	0.77
1:55:30	88.78	70.32	19.20	0.78	18.90	0.77
1:56:30	88.71	70.32	19.12	0.78	18.81	0.77
1:57:30	88.67	70.32	19.09	0.78	18.78	0.77
1:58:30	88.64	70.32	19.05	0.78	18.75	0.77
1:59:30	88.59	70.32	18.99	0.78	18.69	0.76
2:00:30	89.52	70.58	19.69	0.80	19.66	0.80
2:01:30	89.51	70.58	19.68	0.80	19.65	0.80
2:02:30	89.44	70.58	19.61	0.80	19.58	0.80
2:03:30	89.43	70.58	19.60	0.80	19.57	0.80
2:04:30	89.39	70.58	19.55	0.80	19.53	0.80
2:05:30	89.32	70.58	19.48	0.80	19.46	0.79
2:06:30	89.30	70.58	19.46	0.79	19.43	0.79
2:07:30	89.25	70.58	19.40	0.79	19.38	0.79
2:08:30	89.20	70.58	19.36	0.79	19.33	0.79
2:09:30	89.09	70.58	19.24	0.79	19.21	0.78
2:10:30	89.04	70.58	19.19	0.78	19.16	0.78
2:11:30	89.00	70.58	19.15	0.78	19.12	0.78
2:12:30	88.96	70.58	19.11	0.78	19.08	0.78
2:13:30	88.96	70.58	19.11	0.78	19.08	0.78
2:14:30	88.96	70.58	19.11	0.78	19.08	0.78
2:15:30	88.95	70.58	19.09	0.78	19.07	0.78
2:16:30	88.90	70.58	19.05	0.78	19.02	0.78
2:17:30	88.87	70.58	19.01	0.78	18.99	0.78
2:18:30	88.84	70.58	18.98	0.78	18.95	0.77
2:19:30	88.79	70.58	18.93	0.77	18.91	0.77
2:20:30	88.77	70.58	18.91	0.77	18.88	0.77
2:21:30	88.68	70.58	18.82	0.77	18.79	0.77
2:22:30	88.65	70.58	18.78	0.77	18.76	0.77
2:23:30	88.58	70.58	18.71	0.76	18.69	0.76
2:24:30	88.55	70.58	18.68	0.76	18.65	0.76
2:25:30	88.58	70.58	18.71	0.76	18.69	0.76
2:26:30	88.53	70.58	18.66	0.76	18.63	0.76
2:27:30	88.52	70.58	18.65	0.76	18.62	0.76
2:28:30	88.47	70.58	18.60	0.76	18.57	0.76
2:29:30	88.44	70.58	18.57	0.76	18.54	0.76
2:30:30	88.38	70.58	18.51	0.76	18.48	0.75
2:31:30	88.31	70.58	18.43	0.75	18.40	0.75
2:32:30	88.25	70.58	18.37	0.75	18.34	0.75
2:33:30	88.20	70.58	18.31	0.75	18.29	0.75
2:34:30	88.15	70.58	18.27	0.75	18.24	0.74
2:35:30	88.12	70.58	18.23	0.74	18.20	0.74
2:36:30	88.12	70.58	18.23	0.74	18.20	0.74
2:37:30	88.06	70.58	18.18	0.74	18.15	0.74

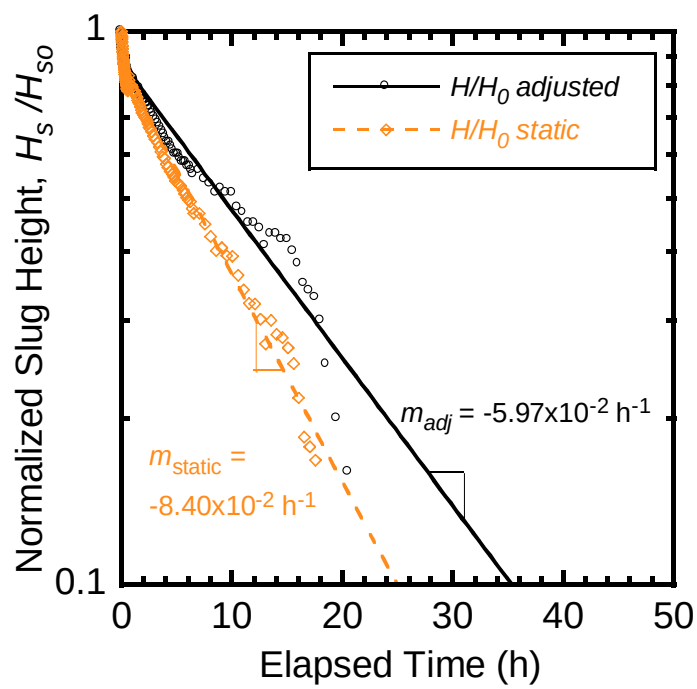
0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:38:30	88.04	70.58	18.15	0.74	18.13	0.74
2:39:30	87.99	70.58	18.09	0.74	18.07	0.74
2:40:30	87.93	70.58	18.04	0.74	18.01	0.74
2:41:30	87.84	70.58	17.95	0.73	17.92	0.73
2:42:30	87.77	70.58	17.87	0.73	17.84	0.73
2:43:30	87.74	70.58	17.84	0.73	17.81	0.73
2:44:30	87.71	70.58	17.81	0.73	17.78	0.73
2:45:30	87.67	70.58	17.76	0.73	17.73	0.72
2:46:30	87.63	70.58	17.73	0.72	17.70	0.72
2:47:30	87.58	70.58	17.67	0.72	17.64	0.72
2:48:30	87.55	70.58	17.64	0.72	17.61	0.72
2:49:30	87.52	70.58	17.61	0.72	17.58	0.72
2:50:30	87.47	70.58	17.55	0.72	17.53	0.72
2:51:30	87.45	70.58	17.53	0.72	17.50	0.71
2:52:30	87.42	70.58	17.51	0.71	17.48	0.71
2:53:30	87.37	70.58	17.45	0.71	17.42	0.71
2:54:30	87.37	70.58	17.45	0.71	17.42	0.71
2:55:30	87.34	70.58	17.42	0.71	17.39	0.71
2:56:30	87.29	70.58	17.37	0.71	17.34	0.71
2:57:30	87.23	70.58	17.30	0.71	17.27	0.71
2:58:30	87.18	70.58	17.26	0.70	17.23	0.70
2:59:30	87.15	70.58	17.22	0.70	17.19	0.70
3:00:30	88.07	70.91	17.85	0.73	18.16	0.74
3:01:30	88.03	70.91	17.80	0.73	18.11	0.74
3:02:30	87.94	70.91	17.71	0.72	18.02	0.74
3:03:30	87.94	70.91	17.71	0.72	18.02	0.74
3:04:30	87.86	70.91	17.63	0.72	17.94	0.73
3:05:30	87.89	70.91	17.65	0.72	17.96	0.73
3:06:30	87.86	70.91	17.63	0.72	17.94	0.73
3:07:30	87.83	70.91	17.59	0.72	17.90	0.73
3:08:30	87.79	70.91	17.55	0.72	17.86	0.73
3:09:30	87.72	70.91	17.48	0.71	17.79	0.73
3:10:30	87.70	70.91	17.46	0.71	17.77	0.73
3:11:30	87.68	70.91	17.43	0.71	17.74	0.72
3:12:30	87.68	70.91	17.43	0.71	17.74	0.72
3:13:30	87.64	70.91	17.40	0.71	17.71	0.72
3:14:30	87.60	70.91	17.35	0.71	17.66	0.72
3:15:30	87.60	70.91	17.35	0.71	17.66	0.72
3:16:30	87.60	70.91	17.35	0.71	17.66	0.72
3:17:30	87.59	70.91	17.34	0.71	17.65	0.72
3:18:30	87.57	70.91	17.32	0.71	17.63	0.72
3:19:30	87.54	70.91	17.30	0.71	17.61	0.72
3:29:30	87.34	70.91	17.09	0.70	17.40	0.71
3:39:30	87.02	70.91	16.76	0.68	17.07	0.70
3:49:30	86.73	70.91	16.45	0.67	16.76	0.68
3:59:30	86.33	70.91	16.03	0.65	16.34	0.67
4:09:30	87.12	71.61	16.13	0.66	17.17	0.70
4:19:30	86.80	71.61	15.80	0.65	16.84	0.69

0+31.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:29:30	86.60	71.61	15.59	0.64	16.63	0.68
4:39:30	86.47	71.61	15.46	0.63	16.49	0.67
4:49:30	86.32	71.61	15.30	0.62	16.33	0.67
4:59:30	86.02	71.61	14.98	0.61	16.02	0.65
5:09:30	85.75	71.36	14.96	0.61	15.74	0.64
5:19:30	85.54	71.36	14.74	0.60	15.53	0.63
5:29:30	85.25	71.36	14.43	0.59	15.22	0.62
5:39:30	85.29	71.36	14.48	0.59	15.26	0.62
5:49:30	84.84	71.36	14.01	0.57	14.79	0.60
5:59:30	84.84	71.36	14.01	0.57	14.79	0.60
6:09:30	84.41	71.22	13.71	0.56	14.34	0.59
6:19:30	84.33	71.22	13.63	0.56	14.26	0.58
6:29:30	84.30	71.22	13.59	0.56	14.23	0.58
6:39:30	83.90	71.22	13.18	0.54	13.82	0.56
6:49:30	83.58	71.22	12.85	0.52	13.48	0.55
6:59:30	83.58	71.22	12.85	0.52	13.48	0.55
7:09:30	83.66	71.15	13.00	0.53	13.56	0.55
7:19:30	83.28	71.15	12.61	0.52	13.18	0.54
7:49:30	82.96	71.15	12.28	0.50	12.84	0.52
8:19:30	82.45	71.14	11.76	0.48	12.31	0.50
8:49:30	82.13	71.14	11.43	0.47	11.98	0.49
9:19:30	81.76	71.09	11.09	0.45	11.59	0.47
9:49:30	81.38	71.09	10.70	0.44	11.20	0.46
10:19:30	81.03	71.15	10.27	0.42	10.83	0.44
10:49:30	80.82	71.15	10.05	0.41	10.62	0.43
11:19:30	80.77	71.30	9.84	0.40	10.56	0.43
11:49:30	80.32	71.30	9.38	0.38	10.10	0.41
12:19:30	80.20	71.33	9.23	0.38	9.97	0.41
12:49:30	80.17	71.33	9.19	0.38	9.94	0.41
13:19:30	79.64	71.17	8.80	0.36	9.39	0.38
13:49:30	78.69	71.17	7.82	0.32	8.40	0.34
14:19:30	78.90	71.18	8.02	0.33	8.62	0.35
14:49:30	78.64	71.18	7.75	0.32	8.34	0.34
15:19:30	79.52	71.85	7.97	0.33	9.26	0.38
15:49:30	78.76	71.85	7.18	0.29	8.47	0.35
16:19:30	78.60	71.69	7.19	0.29	8.31	0.34
16:49:30	78.41	71.69	7.00	0.29	8.11	0.33
17:19:30	77.89	71.44	6.71	0.27	7.56	0.31
17:49:30	77.75	71.44	6.57	0.27	7.43	0.30
18:19:30	77.45	71.47	6.22	0.25	7.12	0.29
18:49:30	77.01	71.47	5.76	0.24	6.66	0.27
19:19:30	77.21	71.64	5.79	0.24	6.86	0.28
20:19:30	77.06	71.87	5.40	0.22	6.70	0.27
21:19:30	76.95	72.35	4.78	0.20	6.59	0.27
22:19:30	76.08	71.63	4.63	0.19	5.69	0.23
23:19:30	76.04	71.64	4.57	0.19	5.64	0.23
24:19:30	75.59	71.61	4.15	0.17	5.18	0.21
25:19:30	75.19	71.15	4.19	0.17	4.76	0.19

0+31.6	**3.0 m**					**Test #1**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
26:19:30	75.15	71.64	3.65	0.15	4.72	0.19
27:19:30	75.38	72.19	3.32	0.14	4.96	0.20
28:19:30	74.54	71.93	2.72	0.11	4.09	0.17
29:19:30	75.26	72.56	2.81	0.11	4.83	0.20
30:19:30	74.83	72.34	2.58	0.11	4.39	0.18
31:19:30	74.33	72.40	2.01	0.08	3.87	0.16
33:19:30	74.04	72.35	1.75	0.07	3.56	0.15
35:19:30	73.58	72.15	1.49	0.06	3.09	0.13
37:19:30	74.06	72.43	1.70	0.07	3.59	0.15
39:19:30	73.19	72.47	0.75	0.03	2.68	0.11
41:19:30	73.07	72.79	0.30	0.01	2.56	0.10
43:19:30	72.87	72.43	0.45	0.02	2.35	0.10
45:19:30	73.20	73.25	-0.05	0.00	2.69	0.11

Test Location (m)	**0+31.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	2
Well #	1	**Test Type**	Rate of Fall
Start Date of Test	11/14/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	65.71
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	19.1/16.0
k_{adj} (cm/s)	4.90E-07	**k_{static} (cm/s)**	6.90E-07



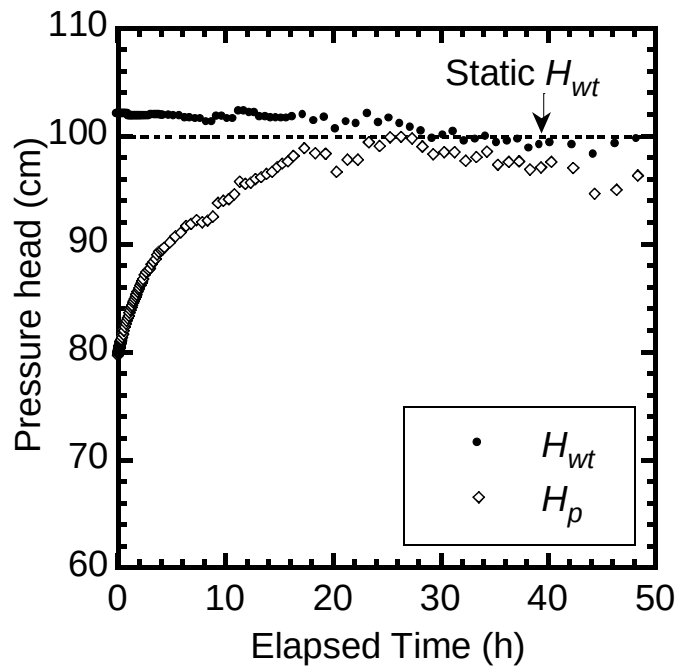


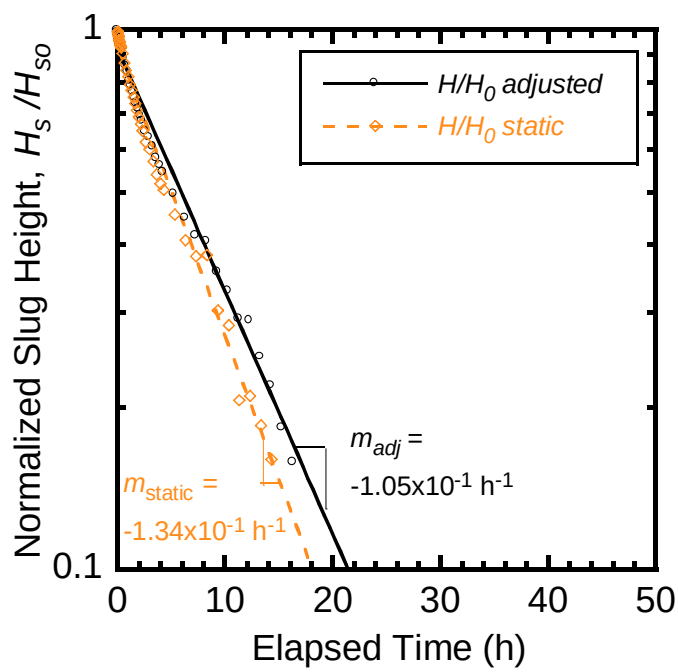
0+31.6	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	84.11	65.71	19.13	1.00	19.13	1.00
0:00:30	83.99	65.71	19.01	0.99	19.01	0.99
0:01:00	83.83	65.71	18.85	0.98	18.85	0.98
0:01:30	83.74	65.71	18.75	0.98	18.75	0.98
0:02:00	83.61	65.71	18.62	0.97	18.62	0.97
0:02:30	83.49	65.71	18.49	0.97	18.49	0.97
0:03:00	83.40	65.71	18.40	0.96	18.40	0.96
0:04:00	83.19	65.71	18.18	0.95	18.18	0.95
0:05:00	83.03	65.71	18.01	0.94	18.01	0.94
0:06:00	82.87	65.71	17.85	0.93	17.85	0.93
0:07:00	82.71	65.71	17.67	0.92	17.67	0.92
0:08:00	82.57	65.71	17.54	0.92	17.54	0.92
0:09:00	82.45	65.71	17.41	0.91	17.41	0.91
0:10:00	82.37	65.71	17.33	0.91	17.33	0.91
0:11:00	82.24	65.71	17.19	0.90	17.19	0.90
0:12:00	82.16	65.71	17.11	0.89	17.11	0.89
0:13:00	82.05	65.71	17.00	0.89	17.00	0.89
0:14:00	81.95	65.71	16.89	0.88	16.89	0.88
0:15:00	81.87	65.71	16.80	0.88	16.80	0.88
0:16:00	81.79	65.71	16.72	0.87	16.72	0.87
0:17:00	81.68	65.71	16.61	0.87	16.61	0.87
0:18:00	81.58	65.71	16.50	0.86	16.50	0.86
0:19:00	81.52	65.71	16.45	0.86	16.45	0.86
0:20:00	81.45	65.71	16.36	0.86	16.36	0.86
0:21:00	81.39	65.71	16.31	0.85	16.31	0.85
0:22:00	81.32	65.71	16.24	0.85	16.24	0.85
0:23:00	81.27	65.71	16.18	0.85	16.18	0.85
0:24:00	81.19	65.71	16.10	0.84	16.10	0.84
0:25:00	81.12	65.71	16.02	0.84	16.02	0.84
0:26:00	81.04	65.71	15.94	0.83	15.94	0.83
0:27:00	81.03	65.71	15.93	0.83	15.93	0.83
0:28:00	80.96	65.71	15.86	0.83	15.86	0.83
0:29:00	80.93	65.71	15.83	0.83	15.83	0.83
0:30:00	80.85	65.71	15.74	0.82	15.74	0.82
0:31:00	80.79	65.71	15.69	0.82	15.69	0.82
0:32:00	80.74	65.71	15.63	0.82	15.63	0.82
0:33:00	80.71	65.71	15.60	0.82	15.60	0.82
0:38:00	81.51	65.71	16.43	0.86	16.43	0.86
0:43:00	81.27	65.71	16.18	0.85	16.18	0.85
0:48:00	81.08	65.71	15.98	0.84	15.98	0.84
0:53:00	81.00	65.71	15.90	0.83	15.90	0.83
0:58:00	80.91	65.71	15.81	0.83	15.81	0.83
1:03:00	80.76	65.71	15.65	0.82	15.65	0.82
1:08:00	80.70	65.71	15.59	0.82	15.59	0.82
1:13:00	80.63	65.71	15.51	0.81	15.51	0.81
1:18:00	80.51	65.71	15.39	0.80	15.39	0.80
1:23:00	80.38	65.71	15.26	0.80	15.26	0.80

1:28:00	80.26	65.71	15.13	0.79	15.13	0.79
1:33:00	80.13	65.71	15.00	0.78	15.00	0.78
1:38:00	80.05	65.60	15.03	0.79	14.92	0.78
1:43:00	79.94	65.60	14.91	0.78	14.80	0.77
1:48:00	79.79	65.60	14.75	0.77	14.64	0.77
1:53:00	79.68	65.60	14.64	0.76	14.53	0.76
1:58:00	79.57	65.60	14.52	0.76	14.41	0.75
2:03:00	79.47	65.60	14.42	0.75	14.31	0.75
2:08:00	79.43	65.60	14.38	0.75	14.27	0.75
2:13:00	79.36	65.60	14.30	0.75	14.19	0.74
2:18:00	79.28	65.60	14.22	0.74	14.11	0.74
2:23:00	79.19	65.60	14.13	0.74	14.02	0.73
2:28:00	79.02	65.60	13.95	0.73	13.84	0.72
2:33:00	78.96	65.60	13.89	0.73	13.78	0.72
2:43:00	78.83	65.63	13.72	0.72	13.64	0.71
2:53:00	78.66	65.63	13.55	0.71	13.47	0.70
3:03:00	78.52	65.63	13.40	0.70	13.32	0.70
3:13:00	78.39	65.63	13.26	0.69	13.18	0.69
3:23:00	78.20	65.63	13.07	0.68	12.99	0.68
3:33:00	78.01	65.63	12.87	0.67	12.79	0.67
3:43:00	77.83	65.75	12.57	0.66	12.61	0.66
3:53:00	77.77	65.75	12.50	0.65	12.54	0.66
4:03:00	77.56	65.75	12.28	0.64	12.32	0.64
4:13:00	77.43	65.75	12.15	0.63	12.19	0.64
4:23:00	77.29	65.75	12.01	0.63	12.05	0.63
4:33:00	77.18	65.75	11.89	0.62	11.93	0.62
4:43:00	77.08	65.87	11.66	0.61	11.83	0.62
4:53:00	76.95	65.87	11.52	0.60	11.69	0.61
5:03:00	76.90	65.87	11.47	0.60	11.64	0.61
5:13:00	76.83	65.87	11.40	0.60	11.57	0.60
5:23:00	76.79	65.87	11.35	0.59	11.52	0.60
5:33:00	76.62	65.87	11.18	0.58	11.35	0.59
5:43:00	75.53	64.82	11.13	0.58	10.21	0.53
5:53:00	75.41	64.82	11.01	0.58	10.09	0.53
6:03:00	75.34	64.82	10.94	0.57	10.02	0.52
6:13:00	75.29	64.82	10.88	0.57	9.96	0.52
6:23:00	75.08	64.82	10.66	0.56	9.74	0.51
6:33:00	74.92	64.82	10.50	0.55	9.58	0.50
7:03:00	75.90	65.60	10.72	0.56	10.60	0.55
7:33:00	75.58	65.60	10.38	0.54	10.27	0.54
8:03:00	75.23	65.47	10.15	0.53	9.90	0.52
8:33:00	74.86	65.47	9.76	0.51	9.51	0.50
9:03:00	74.93	65.41	9.90	0.52	9.59	0.50
9:33:00	74.75	65.41	9.70	0.51	9.40	0.49
10:03:00	74.73	65.35	9.75	0.51	9.38	0.49
10:33:00	74.26	65.35	9.27	0.48	8.89	0.46
11:03:00	73.92	65.32	8.95	0.47	8.54	0.45
11:33:00	73.64	65.32	8.66	0.45	8.25	0.43
12:03:00	73.62	65.26	8.69	0.45	8.23	0.43
12:33:00	73.33	65.26	8.38	0.44	7.92	0.41
13:03:00	72.87	65.38	7.79	0.41	7.45	0.39
13:33:00	73.30	65.38	8.24	0.43	7.90	0.41
14:03:00	73.04	65.20	8.15	0.43	7.62	0.40

14:33:00	72.98	65.20	8.09	0.42	7.57	0.40
15:03:00	72.80	65.10	8.00	0.42	7.37	0.39
15:33:00	72.53	65.10	7.73	0.40	7.10	0.37
16:03:00	72.01	65.04	7.25	0.38	6.56	0.34
16:33:00	71.51	65.04	6.72	0.35	6.03	0.32
17:03:00	71.40	65.22	6.42	0.34	5.92	0.31
17:33:00	71.24	65.22	6.26	0.33	5.76	0.30
18:03:00	70.76	65.25	5.72	0.30	5.25	0.27
18:33:00	69.91	65.25	4.84	0.25	4.37	0.23
19:33:00	68.59	64.99	3.75	0.20	3.00	0.16
20:33:00	68.39	65.45	3.06	0.16	2.79	0.15
21:33:00	67.66	65.17	2.59	0.14	2.04	0.11
22:33:00	67.76	65.22	2.65	0.14	2.14	0.11
23:33:00	68.19	65.19	3.13	0.16	2.58	0.14

Test Location (m)	**0+31.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	3
Well #	1	**Test Type**	Rate of Rise
Start Date of Test	1/19/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	99.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	22.3/20.2
k_{adj} (cm/s)	8.61E-07	**k_{static} (cm/s)**	1.10E-07





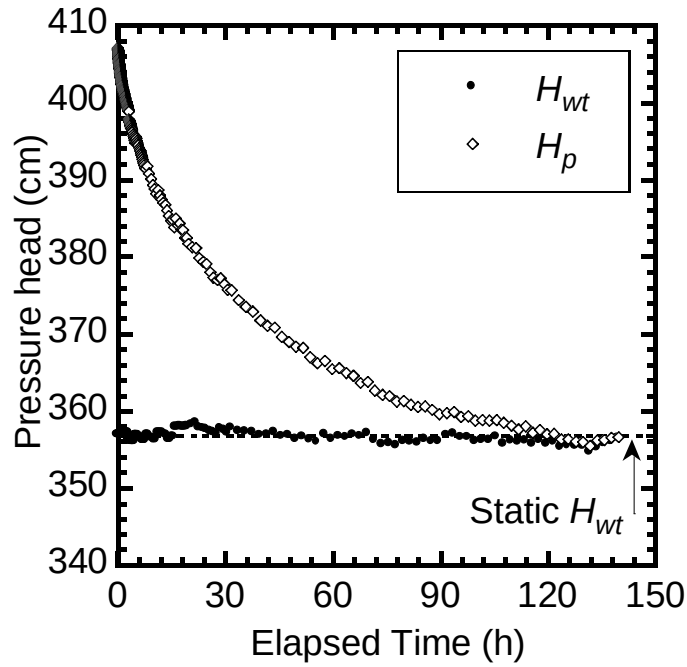
0+31.6 **3.0 m** **Test #3**

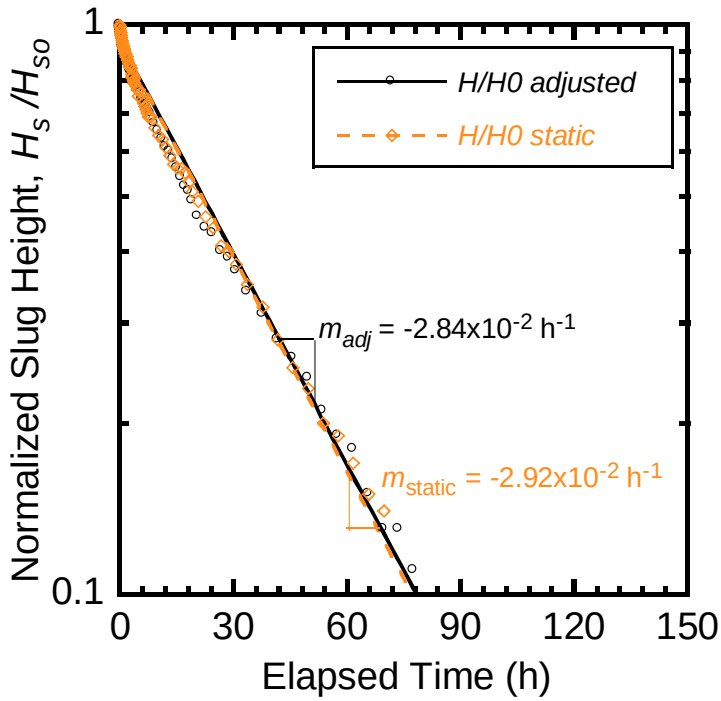
Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
0:00:00	76.67	99.05	23.27	1.00	23.27	1.00
0:01:00	76.78	99.05	23.15	0.99	23.15	0.99
0:02:00	76.87	99.05	23.06	0.99	23.06	0.99
0:03:00	76.94	99.05	22.99	0.99	22.99	0.99
0:04:00	77.03	99.05	22.90	0.98	22.90	0.98
0:05:00	77.12	99.05	22.80	0.98	22.80	0.98
0:06:00	77.20	99.05	22.72	0.98	22.72	0.98
0:07:00	77.26	99.05	22.66	0.97	22.66	0.97
0:08:00	77.35	99.05	22.56	0.97	22.56	0.97
0:09:00	77.46	99.05	22.45	0.96	22.45	0.96
0:10:00	77.51	99.05	22.40	0.96	22.40	0.96
0:11:00	77.61	99.05	22.30	0.96	22.30	0.96
0:12:00	77.66	99.05	22.24	0.96	22.24	0.96
0:13:00	77.69	99.05	22.21	0.95	22.21	0.95
0:14:00	77.76	99.05	22.13	0.95	22.13	0.95
0:15:00	77.87	99.05	22.02	0.95	22.02	0.95
0:16:00	77.90	99.05	21.99	0.94	21.99	0.94
0:17:00	77.94	99.05	21.95	0.94	21.95	0.94
0:18:00	78.02	99.05	21.87	0.94	21.87	0.94
0:19:00	78.07	99.05	21.82	0.94	21.82	0.94
0:24:00	78.28	99.05	21.60	0.93	21.60	0.93
0:29:00	78.53	99.05	21.34	0.92	21.34	0.92
0:34:00	78.87	99.05	20.98	0.90	20.98	0.90
0:39:00	79.21	99.05	20.63	0.89	20.63	0.89
0:44:00	79.51	99.05	20.32	0.87	20.32	0.87
0:49:00	79.74	99.05	20.08	0.86	20.08	0.86
0:54:00	79.96	99.05	19.85	0.85	19.85	0.85
0:59:00	80.17	99.05	19.63	0.84	19.63	0.84
1:04:00	80.45	98.90	19.19	0.82	19.34	0.83
1:09:00	80.71	98.90	18.91	0.81	19.07	0.82
1:14:00	80.89	98.90	18.73	0.80	18.88	0.81
1:19:00	81.09	98.90	18.52	0.80	18.68	0.80
1:24:00	81.35	98.90	18.24	0.78	18.40	0.79
1:29:00	81.51	98.90	18.08	0.78	18.24	0.78
1:34:00	81.69	98.90	17.90	0.77	18.05	0.78
1:39:00	81.89	98.90	17.69	0.76	17.85	0.77
1:44:00	82.09	98.90	17.48	0.75	17.64	0.76
1:49:00	82.30	98.90	17.26	0.74	17.42	0.75
1:54:00	82.50	98.90	17.05	0.73	17.21	0.74
1:59:00	82.69	98.90	16.86	0.72	17.01	0.73
2:04:00	82.89	98.90	16.65	0.72	16.81	0.72
2:09:00	83.10	98.90	16.43	0.71	16.59	0.71
2:14:00	83.25	98.90	16.28	0.70	16.43	0.71
2:19:00	83.44	98.90	16.07	0.69	16.23	0.70
2:29:00	83.83	98.90	15.67	0.67	15.82	0.68
2:39:00	84.07	98.90	15.42	0.66	15.58	0.67
2:49:00	84.27	98.90	15.22	0.65	15.37	0.66
2:59:00	84.42	98.90	15.05	0.65	15.21	0.65

0+31.6 **3.0 m** **Test #3**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
3:09:00	84.74	98.97	14.79	0.64	14.88	0.64
3:19:00	85.01	98.97	14.51	0.62	14.60	0.63
3:29:00	85.24	98.97	14.27	0.61	14.36	0.62
3:39:00	85.62	98.97	13.88	0.60	13.96	0.60
3:49:00	85.85	98.97	13.64	0.59	13.72	0.59
3:59:00	86.01	98.97	13.47	0.58	13.56	0.58
4:09:00	86.12	98.92	13.31	0.57	13.45	0.58
4:19:00	86.30	98.92	13.13	0.56	13.26	0.57
4:49:00	86.73	98.92	12.68	0.54	12.81	0.55
5:19:00	87.26	98.86	12.06	0.52	12.26	0.53
5:49:00	87.60	98.86	11.71	0.50	11.91	0.51
6:19:00	88.17	98.70	10.95	0.47	11.32	0.49
6:49:00	88.38	98.70	10.73	0.46	11.10	0.48
7:19:00	88.70	98.56	10.25	0.44	10.76	0.46
7:49:00	88.53	98.56	10.44	0.45	10.94	0.47
8:19:00	88.67	98.32	10.03	0.43	10.79	0.46
8:49:00	88.99	98.32	9.70	0.42	10.46	0.45
9:19:00	90.24	98.83	8.93	0.38	9.16	0.39
9:49:00	90.41	98.83	8.75	0.38	8.98	0.39
10:19:00	90.58	98.57	8.31	0.36	8.81	0.38
10:49:00	90.99	98.57	7.88	0.34	8.38	0.36
11:19:00	92.11	99.31	7.49	0.32	7.22	0.31
11:49:00	91.93	99.31	7.68	0.33	7.41	0.32
12:19:00	92.02	99.18	7.44	0.32	7.31	0.31
12:49:00	92.36	99.18	7.09	0.30	6.96	0.30
13:19:00	92.52	98.79	6.52	0.28	6.79	0.29
13:49:00	92.80	98.79	6.23	0.27	6.50	0.28
14:19:00	93.00	98.66	5.88	0.25	6.29	0.27
14:49:00	93.44	98.66	5.42	0.23	5.83	0.25
15:19:00	93.75	98.65	5.10	0.22	5.51	0.24
15:49:00	93.97	98.65	4.87	0.21	5.29	0.23
16:19:00	94.41	98.77	4.53	0.19	4.83	0.21
17:19:00	95.12	98.98	4.01	0.17	4.08	0.18
18:19:00	94.67	98.41	3.89	0.17	4.56	0.20
19:19:00	94.64	98.75	4.27	0.18	4.59	0.20
20:19:00	93.04	97.71	4.86	0.21	6.25	0.27
21:19:00	94.07	98.34	4.44	0.19	5.18	0.22
22:19:00	94.07	98.18	4.28	0.18	5.18	0.22
23:19:00	95.65	99.09	3.58	0.15	3.54	0.15
24:19:00	95.30	98.31	3.13	0.13	3.90	0.17
25:19:00	96.10	98.64	2.64	0.11	3.07	0.13
26:19:00	96.15	98.17	2.10	0.09	3.02	0.13

Test Location (m)	**0+32.3**	**Effective Stress on date of test (kPa)**	**11.0**
Depth (m)	6.0	**Test # in well**	1
Well #	2	**Test Type**	Rate of Fall
Start Date of Test	10/03/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	343.3
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	50.2
k_{adj} (cm/s)	2.33E-07	**k_{static} (cm/s)**	2.40E-07





0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
0:00:00	391.53	343.25	50.20	1.00	50.20	1.00
0:00:10	391.50	343.25	50.17	1.00	50.17	1.00
0:00:20	391.48	343.25	50.15	1.00	50.15	1.00
0:00:30	391.44	343.25	50.11	1.00	50.11	1.00
0:00:40	391.44	343.25	50.11	1.00	50.11	1.00
0:00:50	391.39	343.25	50.05	1.00	50.05	1.00
0:01:00	391.41	343.25	50.08	1.00	50.08	1.00
0:01:10	391.38	343.25	50.04	1.00	50.04	1.00
0:01:20	391.35	343.25	50.02	1.00	50.02	1.00
0:01:30	391.30	343.25	49.96	1.00	49.96	1.00
0:01:40	391.30	343.25	49.96	1.00	49.96	1.00
0:01:50	391.26	343.25	49.93	0.99	49.93	0.99
0:02:00	391.24	343.25	49.91	0.99	49.91	0.99
0:02:10	391.24	343.25	49.91	0.99	49.91	0.99
0:02:20	391.21	343.25	49.87	0.99	49.87	0.99
0:02:30	391.19	343.25	49.85	0.99	49.85	0.99
0:02:40	391.15	343.25	49.81	0.99	49.81	0.99
0:02:50	391.15	343.25	49.81	0.99	49.81	0.99
0:03:00	391.10	343.25	49.76	0.99	49.76	0.99
0:03:10	391.12	343.25	49.78	0.99	49.78	0.99
0:03:20	391.10	343.25	49.76	0.99	49.76	0.99
0:03:30	391.09	343.25	49.75	0.99	49.75	0.99
0:03:40	391.06	343.25	49.71	0.99	49.71	0.99
0:03:50	391.06	343.25	49.71	0.99	49.71	0.99
0:04:00	391.01	343.25	49.67	0.99	49.67	0.99
0:04:10	391.00	343.25	49.65	0.99	49.65	0.99
0:04:20	390.96	343.25	49.61	0.99	49.61	0.99
0:04:30	390.96	343.25	49.61	0.99	49.61	0.99
0:04:40	390.94	343.25	49.60	0.99	49.60	0.99
0:04:50	390.94	343.25	49.60	0.99	49.60	0.99
0:05:00	390.89	343.25	49.54	0.99	49.54	0.99
0:05:10	390.89	343.25	49.54	0.99	49.54	0.99
0:05:20	390.87	343.25	49.52	0.99	49.52	0.99
0:05:30	390.86	343.25	49.51	0.99	49.51	0.99
0:05:40	390.86	343.25	49.51	0.99	49.51	0.99
0:05:50	390.82	343.25	49.47	0.99	49.47	0.99
0:06:00	390.80	343.25	49.45	0.98	49.45	0.98
0:06:10	390.78	343.25	49.42	0.98	49.42	0.98
0:06:20	390.78	343.25	49.42	0.98	49.42	0.98
0:06:30	390.77	343.25	49.41	0.98	49.41	0.98
0:06:40	390.75	343.25	49.39	0.98	49.39	0.98
0:06:50	390.74	343.25	49.38	0.98	49.38	0.98
0:07:00	390.69	343.25	49.33	0.98	49.33	0.98
0:07:10	390.69	343.25	49.33	0.98	49.33	0.98
0:07:20	390.69	343.25	49.33	0.98	49.33	0.98
0:07:30	390.66	343.25	49.30	0.98	49.30	0.98
0:07:40	390.64	343.25	49.28	0.98	49.28	0.98
0:07:50	390.64	343.25	49.28	0.98	49.28	0.98

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
0:08:00	390.60	343.25	49.24	0.98	49.24	0.98
0:08:10	390.59	343.25	49.23	0.98	49.23	0.98
0:08:20	390.59	343.25	49.23	0.98	49.23	0.98
0:08:30	390.57	343.25	49.21	0.98	49.21	0.98
0:08:40	390.55	343.25	49.18	0.98	49.18	0.98
0:08:50	390.55	343.25	49.18	0.98	49.18	0.98
0:09:00	390.54	343.25	49.17	0.98	49.17	0.98
0:09:10	390.48	343.25	49.11	0.98	49.11	0.98
0:09:20	390.48	343.25	49.11	0.98	49.11	0.98
0:09:30	390.46	343.25	49.09	0.98	49.09	0.98
0:09:40	390.46	343.25	49.09	0.98	49.09	0.98
0:09:50	390.46	343.25	49.09	0.98	49.09	0.98
0:10:00	390.39	343.25	49.02	0.98	49.02	0.98
0:10:10	390.39	343.25	49.02	0.98	49.02	0.98
0:10:20	390.39	343.25	49.02	0.98	49.02	0.98
0:10:30	390.37	343.25	49.00	0.98	49.00	0.98
0:10:40	390.35	343.25	48.98	0.98	48.98	0.98
0:10:50	390.34	343.25	48.96	0.98	48.96	0.98
0:11:00	390.34	343.25	48.96	0.98	48.96	0.98
0:11:10	390.32	343.25	48.94	0.97	48.94	0.97
0:11:20	390.31	343.25	48.93	0.97	48.93	0.97
0:11:50	390.23	343.25	48.85	0.97	48.85	0.97
0:12:20	390.19	343.25	48.82	0.97	48.82	0.97
0:12:50	390.14	343.25	48.76	0.97	48.76	0.97
0:13:20	390.12	343.25	48.73	0.97	48.73	0.97
0:13:50	390.05	343.25	48.67	0.97	48.67	0.97
0:14:20	390.02	343.25	48.63	0.97	48.63	0.97
0:14:50	389.96	343.25	48.57	0.97	48.57	0.97
0:15:20	389.93	343.25	48.54	0.97	48.54	0.97
0:15:50	389.89	343.25	48.49	0.97	48.49	0.97
0:16:20	389.82	343.25	48.43	0.96	48.43	0.96
0:16:50	389.82	343.25	48.43	0.96	48.43	0.96
0:17:20	389.75	343.25	48.36	0.96	48.36	0.96
0:17:50	389.71	343.25	48.31	0.96	48.31	0.96
0:18:20	389.68	343.25	48.28	0.96	48.28	0.96
0:18:50	389.64	343.25	48.24	0.96	48.24	0.96
0:19:20	389.62	343.25	48.22	0.96	48.22	0.96
0:19:50	389.59	343.25	48.18	0.96	48.18	0.96
0:20:20	389.55	343.25	48.15	0.96	48.15	0.96
0:20:50	389.53	343.25	48.13	0.96	48.13	0.96
0:21:20	389.48	343.25	48.07	0.96	48.07	0.96
0:21:50	389.47	343.25	48.06	0.96	48.06	0.96
0:22:20	389.41	343.25	48.00	0.96	48.00	0.96
0:22:50	389.36	343.25	47.94	0.95	47.94	0.95
0:23:20	389.33	343.25	47.92	0.95	47.92	0.95
0:23:50	389.30	343.25	47.89	0.95	47.89	0.95
0:24:20	389.29	343.25	47.87	0.95	47.87	0.95
0:24:50	389.21	343.25	47.79	0.95	47.79	0.95

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
0:25:20	389.19	343.25	47.77	0.95	47.77	0.95
0:25:50	389.18	343.25	47.76	0.95	47.76	0.95
0:26:20	389.12	343.25	47.70	0.95	47.70	0.95
0:26:50	389.12	343.25	47.70	0.95	47.70	0.95
0:27:20	389.07	343.25	47.64	0.95	47.64	0.95
0:27:50	389.04	343.25	47.61	0.95	47.61	0.95
0:28:20	389.01	343.25	47.59	0.95	47.59	0.95
0:28:50	388.96	343.25	47.53	0.95	47.53	0.95
0:29:20	388.95	343.25	47.52	0.95	47.52	0.95
0:29:50	388.91	343.25	47.48	0.95	47.48	0.95
0:30:20	388.86	343.25	47.43	0.94	47.43	0.94
0:30:50	388.84	343.25	47.40	0.94	47.40	0.94
0:31:20	388.80	343.25	47.37	0.94	47.37	0.94
0:31:50	388.78	343.25	47.35	0.94	47.35	0.94
0:32:20	388.75	343.25	47.31	0.94	47.31	0.94
0:32:50	388.73	343.25	47.29	0.94	47.29	0.94
0:33:20	388.71	343.25	47.28	0.94	47.28	0.94
0:33:50	388.69	343.25	47.25	0.94	47.25	0.94
0:34:20	388.63	343.25	47.18	0.94	47.18	0.94
0:34:50	388.60	343.25	47.16	0.94	47.16	0.94
0:35:20	388.58	343.25	47.14	0.94	47.14	0.94
0:35:50	388.54	343.25	47.09	0.94	47.09	0.94
0:36:20	388.54	343.25	47.09	0.94	47.09	0.94
0:36:50	388.48	343.25	47.03	0.94	47.03	0.94
0:37:20	388.48	343.25	47.03	0.94	47.03	0.94
0:37:50	388.43	343.25	46.98	0.94	46.98	0.94
0:38:20	388.40	343.25	46.95	0.94	46.95	0.94
0:38:50	388.35	343.25	46.90	0.93	46.90	0.93
0:39:20	388.34	343.25	46.89	0.93	46.89	0.93
0:39:50	388.32	343.25	46.86	0.93	46.86	0.93
0:40:20	388.28	343.25	46.83	0.93	46.83	0.93
0:40:50	388.25	343.25	46.79	0.93	46.79	0.93
0:41:20	388.23	343.25	46.77	0.93	46.77	0.93
0:41:50	388.17	343.25	46.71	0.93	46.71	0.93
0:42:20	388.17	343.25	46.71	0.93	46.71	0.93
0:42:50	388.16	343.25	46.70	0.93	46.70	0.93
0:43:20	388.12	343.25	46.66	0.93	46.66	0.93
0:43:50	388.08	343.25	46.62	0.93	46.62	0.93
0:44:20	388.08	343.25	46.62	0.93	46.62	0.93
0:44:50	388.05	343.25	46.59	0.93	46.59	0.93
0:45:20	388.02	343.25	46.55	0.93	46.55	0.93
0:45:50	388.00	343.25	46.53	0.93	46.53	0.93
0:46:20	387.96	343.25	46.49	0.93	46.49	0.93
0:46:50	387.91	343.25	46.44	0.92	46.44	0.92
0:47:20	387.88	343.25	46.41	0.92	46.41	0.92
0:47:50	387.87	343.25	46.40	0.92	46.40	0.92
0:48:20	387.87	343.25	46.40	0.92	46.40	0.92
0:48:50	387.84	343.25	46.37	0.92	46.37	0.92

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
0:49:20	387.80	343.25	46.32	0.92	46.32	0.92
0:49:50	387.76	343.25	46.29	0.92	46.29	0.92
0:50:20	387.75	343.25	46.28	0.92	46.28	0.92
0:50:50	387.71	343.25	46.23	0.92	46.23	0.92
0:51:20	387.73	343.25	46.25	0.92	46.25	0.92
0:51:50	387.67	343.25	46.19	0.92	46.19	0.92
0:52:20	387.65	343.25	46.17	0.92	46.17	0.92
0:52:50	387.61	343.25	46.13	0.92	46.13	0.92
0:53:20	387.61	343.25	46.13	0.92	46.13	0.92
0:53:50	387.61	343.25	46.13	0.92	46.13	0.92
0:54:20	387.56	343.25	46.08	0.92	46.08	0.92
0:54:50	387.56	343.25	46.08	0.92	46.08	0.92
0:55:20	387.53	343.25	46.05	0.92	46.05	0.92
0:55:50	387.50	343.25	46.01	0.92	46.01	0.92
0:56:20	387.50	343.25	46.01	0.92	46.01	0.92
0:56:50	387.46	343.25	45.98	0.92	45.98	0.92
0:57:20	387.44	343.25	45.95	0.92	45.95	0.92
0:57:50	387.42	343.25	45.93	0.91	45.93	0.91
0:58:20	387.41	343.25	45.92	0.91	45.92	0.91
0:58:50	387.39	343.25	45.90	0.91	45.90	0.91
0:59:20	387.35	343.25	45.86	0.91	45.86	0.91
0:59:50	387.32	343.25	45.83	0.91	45.83	0.91
1:00:20	387.32	343.37	45.70	0.91	45.83	0.91
1:00:50	387.27	343.37	45.64	0.91	45.77	0.91
1:01:20	387.27	343.37	45.64	0.91	45.77	0.91
1:01:50	387.21	343.37	45.59	0.91	45.71	0.91
1:02:20	387.19	343.37	45.56	0.91	45.69	0.91
1:02:50	387.18	343.37	45.55	0.91	45.68	0.91
1:03:20	387.15	343.37	45.53	0.91	45.65	0.91
1:03:50	387.12	343.37	45.49	0.91	45.62	0.91
1:04:20	387.10	343.37	45.47	0.91	45.60	0.91
1:04:50	387.07	343.37	45.44	0.91	45.56	0.91
1:05:20	387.09	343.37	45.46	0.91	45.59	0.91
1:05:50	387.07	343.37	45.44	0.91	45.56	0.91
1:06:20	387.04	343.37	45.41	0.90	45.54	0.91
1:06:50	387.01	343.37	45.38	0.90	45.51	0.91
1:07:20	387.01	343.37	45.38	0.90	45.51	0.91
1:07:50	387.00	343.37	45.37	0.90	45.49	0.91
1:08:20	386.96	343.37	45.32	0.90	45.45	0.91
1:08:50	386.96	343.37	45.32	0.90	45.45	0.91
1:09:20	386.94	343.37	45.31	0.90	45.44	0.91
1:09:50	386.91	343.37	45.28	0.90	45.40	0.90
1:10:20	386.91	343.37	45.28	0.90	45.40	0.90
1:10:50	386.89	343.37	45.25	0.90	45.38	0.90
1:11:20	386.83	343.37	45.19	0.90	45.32	0.90
1:11:50	386.83	343.37	45.19	0.90	45.32	0.90
1:12:20	386.81	343.37	45.17	0.90	45.30	0.90
1:12:50	386.78	343.37	45.14	0.90	45.26	0.90

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
1:13:20	386.77	343.37	45.13	0.90	45.25	0.90
1:13:50	386.77	343.37	45.13	0.90	45.25	0.90
1:14:20	386.72	343.37	45.08	0.90	45.21	0.90
1:14:50	386.72	343.37	45.08	0.90	45.21	0.90
1:15:20	386.69	343.37	45.05	0.90	45.17	0.90
1:15:50	386.68	343.37	45.03	0.90	45.16	0.90
1:16:20	386.66	343.37	45.01	0.90	45.14	0.90
1:16:50	386.68	343.37	45.03	0.90	45.16	0.90
1:17:20	386.63	343.37	44.99	0.90	45.11	0.90
1:17:50	386.63	343.37	44.99	0.90	45.11	0.90
1:18:20	386.62	343.37	44.98	0.90	45.10	0.90
1:18:50	386.60	343.37	44.95	0.90	45.08	0.90
1:19:20	386.58	343.37	44.93	0.89	45.06	0.90
1:19:50	386.57	343.37	44.92	0.89	45.04	0.90
1:20:20	386.55	343.37	44.90	0.89	45.02	0.90
1:20:50	386.57	343.37	44.92	0.89	45.04	0.90
1:21:20	386.54	343.37	44.88	0.89	45.01	0.90
1:21:50	386.54	343.37	44.88	0.89	45.01	0.90
1:22:20	386.51	343.37	44.86	0.89	44.99	0.90
1:22:50	386.48	343.37	44.83	0.89	44.95	0.90
1:23:20	386.46	343.37	44.80	0.89	44.93	0.89
1:23:50	386.44	343.37	44.78	0.89	44.91	0.89
1:24:20	386.46	343.37	44.80	0.89	44.93	0.89
1:24:50	386.40	343.37	44.75	0.89	44.87	0.89
1:25:20	386.42	343.37	44.77	0.89	44.90	0.89
1:25:50	386.37	343.37	44.71	0.89	44.84	0.89
1:26:20	386.35	343.37	44.69	0.89	44.82	0.89
1:26:50	386.35	343.37	44.69	0.89	44.82	0.89
1:27:20	386.31	343.37	44.65	0.89	44.78	0.89
1:27:50	386.30	343.37	44.64	0.89	44.77	0.89
1:28:20	386.28	343.37	44.62	0.89	44.75	0.89
1:28:50	386.28	343.37	44.62	0.89	44.75	0.89
1:29:20	386.26	343.37	44.60	0.89	44.72	0.89
1:29:50	386.26	343.37	44.60	0.89	44.72	0.89
1:30:20	386.25	343.37	44.58	0.89	44.71	0.89
1:30:50	386.20	343.37	44.54	0.89	44.66	0.89
1:31:20	386.23	343.37	44.56	0.89	44.69	0.89
1:31:50	386.20	343.37	44.54	0.89	44.66	0.89
1:32:20	386.19	343.37	44.53	0.89	44.65	0.89
1:32:50	386.17	343.37	44.50	0.89	44.63	0.89
1:33:20	386.17	343.37	44.50	0.89	44.63	0.89
1:33:50	386.16	343.37	44.49	0.89	44.62	0.89
1:34:20	386.14	343.37	44.47	0.89	44.60	0.89
1:34:50	386.14	343.37	44.47	0.89	44.60	0.89
1:35:20	386.10	343.37	44.43	0.89	44.56	0.89
1:35:50	386.10	343.37	44.43	0.89	44.56	0.89
1:36:20	386.10	343.37	44.43	0.89	44.56	0.89
1:36:50	386.08	343.37	44.41	0.88	44.54	0.89

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
1:37:20	386.05	343.37	44.38	0.88	44.50	0.89
1:37:50	386.05	343.37	44.38	0.88	44.50	0.89
1:38:20	386.05	343.37	44.38	0.88	44.50	0.89
1:38:50	386.03	343.37	44.36	0.88	44.48	0.89
1:39:20	386.01	343.37	44.34	0.88	44.47	0.89
1:39:50	385.97	343.37	44.30	0.88	44.42	0.88
1:40:20	385.99	343.37	44.32	0.88	44.45	0.89
1:40:50	385.96	343.37	44.29	0.88	44.41	0.88
1:41:20	385.93	343.37	44.25	0.88	44.38	0.88
1:42:20	385.90	343.37	44.23	0.88	44.35	0.88
1:43:20	385.87	343.37	44.19	0.88	44.32	0.88
1:44:20	385.82	343.37	44.14	0.88	44.26	0.88
1:45:20	385.79	343.37	44.11	0.88	44.24	0.88
1:46:20	385.74	343.37	44.06	0.88	44.18	0.88
1:47:20	385.73	343.37	44.04	0.88	44.17	0.88
1:48:20	385.69	343.37	44.01	0.88	44.14	0.88
1:49:20	385.64	343.37	43.95	0.88	44.08	0.88
1:50:20	385.59	343.37	43.91	0.87	44.03	0.88
1:51:20	385.56	343.37	43.87	0.87	44.00	0.88
1:52:20	385.49	343.37	43.80	0.87	43.93	0.88
1:53:20	385.47	343.37	43.78	0.87	43.91	0.87
1:54:20	385.41	343.37	43.71	0.87	43.84	0.87
1:55:20	385.41	343.37	43.71	0.87	43.84	0.87
1:56:20	385.38	343.37	43.69	0.87	43.81	0.87
1:57:20	385.35	343.37	43.65	0.87	43.78	0.87
1:58:20	385.36	343.37	43.66	0.87	43.79	0.87
1:59:20	385.35	343.37	43.65	0.87	43.78	0.87
2:00:20	385.32	343.47	43.51	0.87	43.74	0.87
2:01:20	385.30	343.47	43.49	0.87	43.72	0.87
2:02:20	385.23	343.47	43.42	0.86	43.65	0.87
2:03:20	385.21	343.47	43.40	0.86	43.63	0.87
2:04:20	385.17	343.47	43.36	0.86	43.60	0.87
2:05:20	385.15	343.47	43.34	0.86	43.57	0.87
2:06:20	385.12	343.47	43.31	0.86	43.54	0.87
2:07:20	385.06	343.47	43.25	0.86	43.48	0.87
2:08:20	385.03	343.47	43.21	0.86	43.45	0.87
2:09:20	385.01	343.47	43.19	0.86	43.42	0.86
2:10:20	384.98	343.47	43.16	0.86	43.39	0.86
2:11:20	384.92	343.47	43.10	0.86	43.33	0.86
2:12:20	384.90	343.47	43.08	0.86	43.31	0.86
2:13:20	384.85	343.47	43.03	0.86	43.26	0.86
2:14:20	384.81	343.47	42.98	0.86	43.22	0.86
2:15:20	384.75	343.47	42.93	0.86	43.16	0.86
2:16:20	384.74	343.47	42.92	0.85	43.15	0.86
2:17:20	384.69	343.47	42.86	0.85	43.09	0.86
2:18:20	384.66	343.47	42.83	0.85	43.07	0.86
2:19:20	384.65	343.47	42.82	0.85	43.05	0.86
2:20:20	384.63	343.47	42.80	0.85	43.03	0.86

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
2:21:20	384.58	343.47	42.74	0.85	42.97	0.86
2:22:20	384.57	343.47	42.73	0.85	42.96	0.86
2:23:20	384.54	343.47	42.71	0.85	42.94	0.86
2:24:20	384.54	343.47	42.71	0.85	42.94	0.86
2:25:20	384.49	343.47	42.65	0.85	42.88	0.85
2:26:20	384.49	343.47	42.65	0.85	42.88	0.85
2:27:20	384.46	343.47	42.62	0.85	42.85	0.85
2:28:20	384.42	343.47	42.58	0.85	42.81	0.85
2:29:20	384.40	343.47	42.56	0.85	42.79	0.85
2:30:20	384.37	343.47	42.52	0.85	42.76	0.85
2:31:20	384.37	343.47	42.52	0.85	42.76	0.85
2:32:20	384.33	343.47	42.49	0.85	42.72	0.85
2:33:20	384.31	343.47	42.47	0.85	42.70	0.85
2:34:20	384.29	343.47	42.44	0.85	42.68	0.85
2:35:20	384.24	343.47	42.40	0.84	42.63	0.85
2:36:20	384.20	343.47	42.35	0.84	42.58	0.85
2:37:20	384.17	343.47	42.32	0.84	42.55	0.85
2:38:20	384.14	343.47	42.29	0.84	42.53	0.85
2:39:20	384.11	343.47	42.26	0.84	42.49	0.85
2:40:20	384.06	343.47	42.20	0.84	42.43	0.85
2:41:20	384.06	343.47	42.20	0.84	42.43	0.85
2:42:20	384.02	343.47	42.17	0.84	42.40	0.84
2:43:20	384.01	343.47	42.16	0.84	42.39	0.84
2:44:20	383.99	343.47	42.13	0.84	42.36	0.84
2:45:20	383.96	343.47	42.10	0.84	42.33	0.84
2:46:20	383.93	343.47	42.07	0.84	42.31	0.84
2:47:20	383.90	343.47	42.04	0.84	42.27	0.84
2:48:20	383.88	343.47	42.02	0.84	42.25	0.84
2:49:20	383.85	343.47	41.98	0.84	42.21	0.84
2:50:20	383.81	343.47	41.95	0.84	42.18	0.84
2:51:20	383.79	343.47	41.92	0.84	42.16	0.84
2:52:20	383.77	343.47	41.90	0.83	42.13	0.84
2:53:20	383.76	343.47	41.89	0.83	42.12	0.84
2:54:20	383.72	343.47	41.86	0.83	42.09	0.84
2:55:20	383.72	343.47	41.86	0.83	42.09	0.84
2:56:20	383.67	343.47	41.80	0.83	42.03	0.84
2:57:20	383.68	343.47	41.81	0.83	42.04	0.84
2:58:20	383.65	343.47	41.78	0.83	42.01	0.84
2:59:20	383.61	343.47	41.74	0.83	41.97	0.84
3:00:20	382.63	342.50	41.73	0.83	40.95	0.82
3:01:20	382.61	342.50	41.70	0.83	40.93	0.82
3:02:20	382.56	342.50	41.65	0.83	40.87	0.81
3:03:20	382.54	342.50	41.63	0.83	40.86	0.81
3:04:20	382.54	342.50	41.63	0.83	40.86	0.81
3:05:20	382.51	342.50	41.60	0.83	40.83	0.81
3:06:20	382.46	342.50	41.54	0.83	40.77	0.81
3:07:20	382.46	342.50	41.54	0.83	40.77	0.81
3:08:20	382.46	342.50	41.54	0.83	40.77	0.81

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
3:09:20	382.42	342.50	41.51	0.83	40.73	0.81
3:10:20	382.40	342.50	41.48	0.83	40.71	0.81
3:11:20	382.40	342.50	41.48	0.83	40.71	0.81
3:12:20	382.38	342.50	41.46	0.83	40.69	0.81
3:13:20	382.34	342.50	41.43	0.83	40.65	0.81
3:14:20	382.32	342.50	41.40	0.82	40.63	0.81
3:15:20	382.31	342.50	41.39	0.82	40.62	0.81
3:16:20	382.31	342.50	41.39	0.82	40.62	0.81
3:17:20	382.28	342.50	41.36	0.82	40.59	0.81
3:18:20	382.23	342.50	41.31	0.82	40.54	0.81
3:19:20	382.18	342.50	41.25	0.82	40.48	0.81
3:20:20	382.17	342.50	41.24	0.82	40.47	0.81
3:21:20	382.15	342.50	41.22	0.82	40.45	0.81
3:22:20	382.09	342.50	41.16	0.82	40.39	0.80
3:23:20	382.09	342.50	41.16	0.82	40.39	0.80
3:24:20	382.05	342.50	41.12	0.82	40.34	0.80
3:25:20	382.02	342.50	41.09	0.82	40.32	0.80
3:26:20	381.99	342.50	41.06	0.82	40.29	0.80
3:27:20	381.95	342.50	41.01	0.82	40.24	0.80
3:28:20	381.91	342.50	40.98	0.82	40.21	0.80
3:29:20	381.85	342.50	40.91	0.81	40.14	0.80
3:30:20	381.82	342.50	40.89	0.81	40.11	0.80
3:31:20	381.82	342.50	40.89	0.81	40.11	0.80
3:32:20	381.79	342.50	40.85	0.81	40.08	0.80
3:33:20	381.77	342.50	40.83	0.81	40.06	0.80
3:34:20	381.71	342.50	40.77	0.81	40.00	0.80
3:35:20	381.70	342.50	40.76	0.81	39.99	0.80
3:36:20	381.70	342.50	40.76	0.81	39.99	0.80
3:37:20	381.67	342.50	40.72	0.81	39.95	0.80
3:38:20	381.62	342.50	40.68	0.81	39.91	0.79
3:39:20	381.59	342.50	40.65	0.81	39.87	0.79
3:40:20	381.56	342.50	40.61	0.81	39.84	0.79
3:41:20	381.54	342.50	40.59	0.81	39.81	0.79
3:51:20	381.33	342.50	40.37	0.80	39.60	0.79
4:01:20	381.06	342.38	40.22	0.80	39.32	0.78
4:11:20	380.78	342.38	39.93	0.80	39.03	0.78
4:21:20	380.55	342.38	39.69	0.79	38.79	0.77
4:31:20	380.35	342.38	39.48	0.79	38.58	0.77
4:41:20	380.02	342.38	39.14	0.78	38.24	0.76
4:51:20	379.70	342.38	38.80	0.77	37.90	0.75
5:01:20	380.46	343.14	38.81	0.77	38.69	0.77
5:11:20	380.28	343.14	38.62	0.77	38.51	0.77
5:21:20	380.02	343.14	38.35	0.76	38.23	0.76
5:31:20	379.71	343.14	38.02	0.76	37.91	0.76
5:41:20	379.42	343.14	37.72	0.75	37.61	0.75
5:51:20	379.08	343.14	37.37	0.74	37.25	0.74
6:01:20	378.89	342.89	37.43	0.75	37.06	0.74
6:11:20	378.66	342.89	37.18	0.74	36.82	0.73

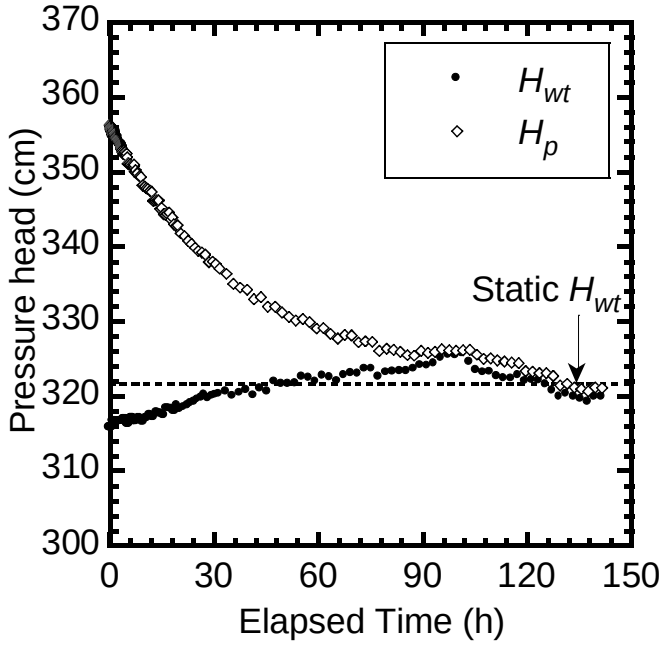
0+32.3 **6.0 m** **Test #1**

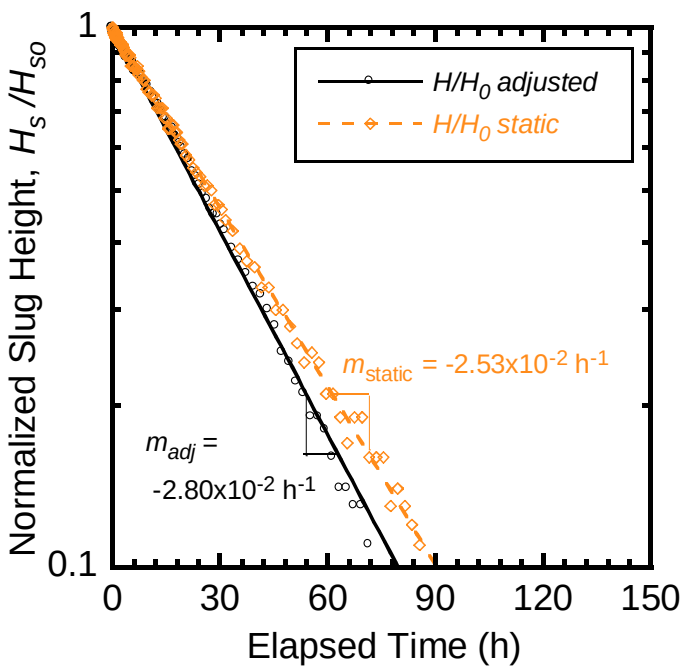
Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
6:21:20	378.42	342.89	36.94	0.74	36.58	0.73
6:31:20	378.18	342.89	36.69	0.73	36.32	0.72
6:41:20	377.97	342.89	36.47	0.73	36.10	0.72
6:51:20	377.68	342.89	36.17	0.72	35.80	0.71
7:01:20	377.42	342.62	36.18	0.72	35.53	0.71
7:11:20	377.16	342.62	35.92	0.72	35.26	0.70
7:21:20	376.91	342.62	35.65	0.71	35.00	0.70
7:31:20	376.66	342.62	35.40	0.71	34.75	0.69
7:41:20	376.53	342.62	35.26	0.70	34.61	0.69
8:11:20	376.80	343.18	34.96	0.70	34.89	0.69
8:41:20	375.85	343.18	33.97	0.68	33.90	0.68
9:11:20	375.16	342.89	33.56	0.67	33.19	0.66
9:41:20	374.49	342.89	32.85	0.65	32.48	0.65
10:11:20	373.93	342.69	32.49	0.65	31.91	0.64
10:41:20	373.39	342.69	31.92	0.64	31.35	0.62
11:11:20	373.83	343.46	31.58	0.63	31.80	0.63
11:41:20	373.13	343.46	30.86	0.61	31.08	0.62
12:11:20	372.67	343.45	30.38	0.61	30.59	0.61
12:41:20	372.24	343.45	29.94	0.60	30.14	0.60
13:11:20	371.97	343.20	29.92	0.60	29.87	0.59
13:41:20	371.31	343.20	29.23	0.58	29.18	0.58
14:11:20	370.59	342.74	28.96	0.58	28.43	0.57
14:41:20	369.99	342.74	28.33	0.56	27.81	0.55
15:11:20	370.16	343.02	28.22	0.56	27.99	0.56
15:41:20	369.18	343.02	27.20	0.54	29.76	0.54
16:11:20	370.28	344.25	27.06	0.54	28.10	0.56
16:41:20	369.43	344.25	26.18	0.52	27.23	0.54
17:11:20	369.63	344.33	26.30	0.52	27.43	0.55
17:41:20	368.91	344.33	25.55	0.51	26.68	0.53
18:11:20	368.83	344.26	25.54	0.51	26.60	0.53
18:41:20	367.91	344.26	24.59	0.49	25.64	0.51
19:11:20	367.92	344.29	24.56	0.49	25.65	0.51
19:41:20	367.11	344.29	23.72	0.47	24.81	0.49
20:41:20	366.70	344.49	23.09	0.46	24.39	0.49
21:41:20	366.59	344.75	22.71	0.45	24.27	0.48
22:41:20	365.38	344.19	22.03	0.44	23.02	0.46
23:41:20	364.90	344.04	21.69	0.43	22.51	0.45
24:41:20	364.60	343.96	21.46	0.43	22.20	0.44
25:41:20	363.60	343.67	20.72	0.41	21.17	0.42
26:41:20	362.92	343.57	20.12	0.40	20.45	0.41
27:41:20	362.64	343.38	20.02	0.40	20.16	0.40
28:41:20	362.79	344.03	19.50	0.39	20.32	0.40
29:41:20	362.07	343.79	19.00	0.38	19.57	0.39
30:41:20	361.38	343.51	18.58	0.37	18.86	0.38
31:41:20	361.32	344.07	17.94	0.36	18.80	0.37
33:41:20	360.09	343.70	17.05	0.34	17.52	0.35
35:41:20	359.29	343.65	16.26	0.32	16.68	0.33
37:41:20	358.66	343.54	15.71	0.31	16.02	0.32

0+32.3 **6.0 m** **Test #1**

Elapsed Time (H:M:S)	H_p (cm)	H_{wt} (cm)	Adjusted H_{wt}		Static H_{wt}	
			H_S (cm)	H_S/H_{S0}	H_S (cm)	H_S/H_{S0}
39:41:20	357.57	343.14	15.00	0.30	14.89	0.30
41:41:20	356.88	343.22	14.20	0.28	14.18	0.28
43:41:20	356.65	343.54	13.63	0.27	13.94	0.28
45:41:20	355.49	343.06	12.92	0.26	12.73	0.25
47:41:20	354.86	343.15	12.18	0.24	12.08	0.24
49:41:20	354.25	342.73	11.98	0.24	11.44	0.23
51:41:20	354.13	342.99	11.59	0.23	11.32	0.23
53:41:20	352.98	342.66	10.74	0.21	10.13	0.20
55:41:20	352.26	342.31	10.35	0.21	9.38	0.19
57:41:20	352.50	343.31	9.56	0.19	9.63	0.19
59:41:20	351.49	342.72	9.11	0.18	8.57	0.17
61:41:20	351.63	343.10	8.87	0.18	8.72	0.17
63:41:20	351.00	342.91	8.41	0.17	8.06	0.16
65:41:20	350.67	343.22	7.75	0.15	7.73	0.15
67:41:20	349.79	343.09	6.96	0.14	6.80	0.14
69:41:20	349.88	343.41	6.73	0.13	6.90	0.14
71:41:20	348.85	342.62	6.47	0.13	5.82	0.12
73:41:20	348.27	342.02	6.51	0.13	5.23	0.10
75:41:20	348.15	342.17	6.21	0.12	5.10	0.10
77:41:20	347.46	341.92	5.76	0.11	4.39	0.09
79:41:20	347.50	342.46	5.24	0.10	4.43	0.09
81:41:20	347.06	342.32	4.94	0.10	3.97	0.08
83:41:20	346.75	342.22	4.71	0.09	3.65	0.07
85:41:20	346.81	342.70	4.27	0.09	3.70	0.07
87:41:20	346.44	342.41	4.19	0.08	3.32	0.07
89:41:20	345.91	342.45	3.59	0.07	2.77	0.06
91:41:20	345.99	343.15	2.95	0.06	2.85	0.06
93:41:20	346.17	343.32	2.96	0.06	3.04	0.06
95:41:20	345.56	342.93	2.74	0.05	2.41	0.05
97:41:20	345.59	342.91	2.79	0.06	2.44	0.05
99:41:20	345.08	342.45	2.74	0.05	1.91	0.04
101:41:20	345.09	342.58	2.61	0.05	1.92	0.04
103:41:20	345.08	342.62	2.55	0.05	1.90	0.04
105:41:20	345.11	343.00	2.19	0.04	1.93	0.04
107:41:20	344.81	342.12	2.80	0.06	1.63	0.03
109:41:20	344.47	342.53	2.01	0.04	1.27	0.03
111:41:20	343.94	342.29	1.71	0.03	0.72	0.01
113:41:20	344.35	342.53	1.89	0.04	1.15	0.02
115:41:20	343.55	342.14	1.46	0.03	0.32	0.01
117:41:20	343.89	342.56	1.39	0.03	0.67	0.01
119:41:20	343.33	342.09	1.29	0.03	0.09	0.00
121:41:20	343.42	342.31	1.16	0.02	0.18	0.00
123:41:20	342.75	341.69	1.10	0.02	-0.51	-0.01
125:41:20	342.73	341.93	0.83	0.02	-0.53	-0.01
127:41:20	342.46	341.83	0.66	0.01	-0.81	-0.02
129:41:20	342.42	341.84	0.61	0.01	-0.85	-0.02
131:41:20	341.90	341.09	0.84	0.02	-1.40	-0.03

Test Location (m)	**0+32.3**	**Effective Stress on date of test (kPa)**	**12.0**
Depth (m)	6.0	**Test # in well**	2
Well #	2	**Test Type**	Rate of Fall
Start Date of Test	10/11/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	321.7
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	42.1/36.0
k_{adj} (cm/s)	2.30E-07	**k_{static} (cm/s)**	2.07E-07





0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	356.32	315.79	42.14	1.00	36.03	1.00
0:00:30	356.29	315.79	42.11	1.00	35.99	1.00
0:01:00	356.29	315.79	42.11	1.00	35.99	1.00
0:01:30	356.29	315.79	42.11	1.00	35.99	1.00
0:02:00	356.26	315.79	42.09	1.00	35.97	1.00
0:02:30	356.25	315.79	42.08	1.00	35.96	1.00
0:03:00	356.23	315.79	42.05	1.00	35.93	1.00
0:03:30	356.21	315.79	42.03	1.00	35.91	1.00
0:04:00	356.20	315.79	42.02	1.00	35.90	1.00
0:04:30	356.20	315.79	42.02	1.00	35.90	1.00
0:05:00	356.18	315.79	42.00	1.00	35.88	1.00
0:05:30	356.18	315.79	42.00	1.00	35.88	1.00
0:06:00	356.17	315.79	41.98	1.00	35.87	1.00
0:06:30	356.14	315.79	41.96	1.00	35.84	0.99
0:07:00	356.14	315.79	41.96	1.00	35.84	0.99
0:07:30	356.14	315.79	41.96	1.00	35.84	0.99
0:08:00	356.17	315.79	41.98	1.00	35.87	1.00
0:08:30	356.14	315.79	41.96	1.00	35.84	0.99
0:09:00	356.14	315.79	41.96	1.00	35.84	0.99
0:09:30	356.14	315.79	41.96	1.00	35.84	0.99
0:10:00	356.11	315.79	41.93	0.99	35.81	0.99
0:10:30	356.11	315.79	41.93	0.99	35.81	0.99
0:11:00	356.07	315.79	41.88	0.99	35.76	0.99
0:11:30	356.05	315.79	41.87	0.99	35.75	0.99
0:12:00	356.05	315.79	41.87	0.99	35.75	0.99
0:12:30	356.00	315.79	41.81	0.99	35.69	0.99
0:13:00	355.98	315.79	41.79	0.99	35.67	0.99
0:13:30	355.94	315.79	41.75	0.99	35.64	0.99
0:14:00	355.89	315.79	41.70	0.99	35.58	0.99
0:14:30	355.87	315.79	41.67	0.99	35.56	0.99
0:15:00	355.83	315.79	41.64	0.99	35.52	0.99
0:15:30	355.82	315.79	41.63	0.99	35.51	0.99
0:16:00	355.80	315.79	41.61	0.99	35.49	0.99
0:16:30	355.77	315.79	41.57	0.99	35.45	0.98
0:17:00	355.71	315.79	41.51	0.99	35.39	0.98
0:17:30	355.69	315.79	41.49	0.98	35.37	0.98
0:18:00	355.68	315.79	41.48	0.98	35.36	0.98
0:18:30	355.66	315.79	41.46	0.98	35.34	0.98
0:19:00	355.63	315.79	41.43	0.98	35.31	0.98
0:19:30	355.62	315.79	41.42	0.98	35.30	0.98
0:20:00	355.62	315.79	41.42	0.98	35.30	0.98
0:20:30	355.62	315.79	41.42	0.98	35.30	0.98
0:21:00	355.58	315.79	41.37	0.98	35.26	0.98
0:21:30	355.57	315.79	41.36	0.98	35.25	0.98
0:22:00	355.58	315.79	41.37	0.98	35.26	0.98
0:22:30	355.54	315.79	41.34	0.98	35.22	0.98
0:23:00	355.53	315.79	41.33	0.98	35.21	0.98
0:23:30	355.51	315.79	41.31	0.98	35.19	0.98

0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:24:00	355.49	315.79	41.28	0.98	35.16	0.98
0:24:30	355.46	315.79	41.25	0.98	35.13	0.98
0:25:00	355.40	315.79	41.19	0.98	35.07	0.97
0:25:30	355.40	315.79	41.19	0.98	35.07	0.97
0:26:00	355.39	315.79	41.18	0.98	35.06	0.97
0:26:30	355.37	315.79	41.16	0.98	35.04	0.97
0:27:00	355.39	315.79	41.18	0.98	35.06	0.97
0:27:30	355.37	315.79	41.16	0.98	35.04	0.97
0:28:00	355.40	315.79	41.19	0.98	35.07	0.97
0:28:30	355.37	315.79	41.16	0.98	35.04	0.97
0:29:00	355.35	315.79	41.13	0.98	35.02	0.97
0:29:30	355.37	315.79	41.16	0.98	35.04	0.97
0:30:00	355.37	315.79	41.16	0.98	35.04	0.97
0:30:30	355.40	315.79	41.19	0.98	35.07	0.97
0:31:00	355.40	315.79	41.19	0.98	35.07	0.97
0:31:30	355.39	315.79	41.18	0.98	35.06	0.97
0:32:00	355.39	315.79	41.18	0.98	35.06	0.97
0:32:30	355.40	315.79	41.19	0.98	35.07	0.97
0:33:00	355.40	315.79	41.19	0.98	35.07	0.97
0:33:30	355.39	315.79	41.18	0.98	35.06	0.97
0:34:00	355.39	315.79	41.18	0.98	35.06	0.97
0:34:30	355.37	315.79	41.16	0.98	35.04	0.97
0:35:00	355.39	315.79	41.18	0.98	35.06	0.97
0:35:30	355.40	315.79	41.19	0.98	35.07	0.97
0:36:00	355.39	315.79	41.18	0.98	35.06	0.97
0:36:30	355.37	315.79	41.16	0.98	35.04	0.97
0:37:00	355.37	315.79	41.16	0.98	35.04	0.97
0:37:30	355.37	315.79	41.16	0.98	35.04	0.97
0:38:00	355.35	315.79	41.13	0.98	35.02	0.97
0:38:30	355.34	315.79	41.12	0.98	35.00	0.97
0:39:00	355.29	315.79	41.08	0.97	34.96	0.97
0:39:30	355.31	315.79	41.10	0.98	34.98	0.97
0:40:00	355.29	315.79	41.08	0.97	34.96	0.97
0:40:30	355.31	315.79	41.10	0.98	34.98	0.97
0:41:00	355.28	315.79	41.06	0.97	34.95	0.97
0:41:30	355.28	315.79	41.06	0.97	34.95	0.97
0:42:00	355.28	315.79	41.06	0.97	34.95	0.97
0:42:30	355.28	315.79	41.06	0.97	34.95	0.97
0:43:00	355.26	315.79	41.04	0.97	34.92	0.97
0:43:30	355.22	315.79	41.01	0.97	34.89	0.97
0:44:00	355.19	315.79	40.97	0.97	34.85	0.97
0:44:30	355.15	315.79	40.93	0.97	34.81	0.97
0:45:00	355.11	315.79	40.89	0.97	34.77	0.97
0:45:30	355.08	315.79	40.86	0.97	34.74	0.96
0:46:00	355.06	315.79	40.83	0.97	34.72	0.96
0:46:30	355.05	315.79	40.82	0.97	34.70	0.96
0:47:00	355.03	315.79	40.80	0.97	34.68	0.96
0:47:30	355.01	315.79	40.79	0.97	34.67	0.96

0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:48:00	355.01	315.79	40.79	0.97	34.67	0.96
0:48:30	354.99	315.79	40.76	0.97	34.65	0.96
0:49:00	355.01	315.79	40.79	0.97	34.67	0.96
0:49:30	354.99	315.79	40.76	0.97	34.65	0.96
0:50:00	354.99	315.79	40.76	0.97	34.65	0.96
0:50:30	354.97	315.79	40.74	0.97	34.62	0.96
0:51:00	354.96	315.79	40.73	0.97	34.61	0.96
0:51:30	354.96	315.79	40.73	0.97	34.61	0.96
0:52:00	354.97	315.79	40.74	0.97	34.62	0.96
0:52:30	354.97	315.79	40.74	0.97	34.62	0.96
0:53:00	354.96	315.79	40.73	0.97	34.61	0.96
0:53:30	354.91	315.79	40.68	0.97	34.57	0.96
0:54:00	354.90	315.79	40.67	0.97	34.55	0.96
0:54:30	354.88	315.79	40.65	0.96	34.53	0.96
0:55:00	354.85	315.79	40.62	0.96	34.50	0.96
0:55:30	354.83	315.79	40.59	0.96	34.47	0.96
0:56:00	354.83	315.79	40.59	0.96	34.47	0.96
0:56:30	354.85	315.79	40.62	0.96	34.50	0.96
0:57:00	354.82	315.79	40.58	0.96	34.46	0.96
0:57:30	354.83	315.79	40.59	0.96	34.47	0.96
0:58:00	354.79	315.79	40.56	0.96	34.44	0.96
0:58:30	354.79	315.79	40.56	0.96	34.44	0.96
0:59:00	354.76	315.79	40.52	0.96	34.40	0.95
0:59:30	354.73	315.79	40.49	0.96	34.37	0.95
1:00:00	355.71	316.61	40.65	0.96	35.39	0.98
1:00:30	355.65	316.61	40.59	0.96	35.33	0.98
1:01:00	355.65	316.61	40.59	0.96	35.33	0.98
1:01:30	355.65	316.61	40.59	0.96	35.33	0.98
1:02:00	355.63	316.61	40.57	0.96	35.31	0.98
1:02:30	355.57	316.61	40.51	0.96	35.25	0.98
1:03:00	355.57	316.61	40.51	0.96	35.25	0.98
1:03:30	355.60	316.61	40.53	0.96	35.28	0.98
1:04:00	355.54	316.61	40.48	0.96	35.22	0.98
1:04:30	355.52	316.61	40.45	0.96	35.20	0.98
1:05:00	355.52	316.61	40.45	0.96	35.20	0.98
1:05:30	355.51	316.61	40.44	0.96	35.18	0.98
1:06:00	355.49	316.61	40.42	0.96	35.16	0.98
1:06:30	355.46	316.61	40.39	0.96	35.14	0.98
1:07:00	355.43	316.61	40.36	0.96	35.10	0.97
1:07:30	355.43	316.61	40.36	0.96	35.10	0.97
1:08:00	355.40	316.61	40.33	0.96	35.07	0.97
1:08:30	355.40	316.61	40.33	0.96	35.07	0.97
1:09:00	355.37	316.61	40.30	0.96	35.04	0.97
1:09:30	355.36	316.61	40.29	0.96	35.03	0.97
1:10:00	355.32	316.61	40.24	0.95	34.99	0.97
1:10:30	355.26	316.61	40.19	0.95	34.93	0.97
1:11:00	355.25	316.61	40.18	0.95	34.92	0.97
1:11:30	355.20	316.61	40.12	0.95	34.86	0.97

0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:12:00	355.18	316.61	40.10	0.95	34.84	0.97
1:12:30	355.14	316.61	40.06	0.95	34.80	0.97
1:13:00	355.18	316.61	40.10	0.95	34.84	0.97
1:13:30	355.17	316.61	40.08	0.95	34.83	0.97
1:14:00	355.12	316.61	40.04	0.95	34.78	0.97
1:14:30	355.12	316.61	40.04	0.95	34.78	0.97
1:15:00	355.08	316.61	39.99	0.95	34.73	0.96
1:15:30	355.08	316.61	39.99	0.95	34.73	0.96
1:16:00	355.08	316.61	39.99	0.95	34.73	0.96
1:16:30	355.03	316.61	39.95	0.95	34.69	0.96
1:17:00	355.03	316.61	39.95	0.95	34.69	0.96
1:17:30	355.02	316.61	39.93	0.95	34.68	0.96
1:18:00	355.00	316.61	39.91	0.95	34.65	0.96
1:18:30	355.02	316.61	39.93	0.95	34.68	0.96
1:19:00	354.98	316.61	39.89	0.95	34.63	0.96
1:19:30	354.97	316.61	39.88	0.95	34.62	0.96
1:20:00	354.94	316.61	39.85	0.95	34.60	0.96
1:20:30	354.93	316.61	39.84	0.95	34.59	0.96
1:21:00	354.93	316.61	39.84	0.95	34.59	0.96
1:21:30	354.89	316.61	39.80	0.94	34.54	0.96
1:22:00	354.91	316.61	39.82	0.94	34.56	0.96
1:22:30	354.91	316.61	39.82	0.94	34.56	0.96
1:23:00	354.93	316.61	39.84	0.95	34.59	0.96
1:23:30	354.93	316.61	39.84	0.95	34.59	0.96
1:24:00	354.94	316.61	39.85	0.95	34.60	0.96
1:24:30	354.94	316.61	39.85	0.95	34.60	0.96
1:25:00	354.97	316.61	39.88	0.95	34.62	0.96
1:25:30	355.00	316.61	39.91	0.95	34.65	0.96
1:26:00	354.98	316.61	39.89	0.95	34.63	0.96
1:26:30	355.00	316.61	39.91	0.95	34.65	0.96
1:27:00	355.02	316.61	39.93	0.95	34.68	0.96
1:27:30	355.02	316.61	39.93	0.95	34.68	0.96
1:28:00	355.02	316.61	39.93	0.95	34.68	0.96
1:28:30	355.00	316.61	39.91	0.95	34.65	0.96
1:29:30	355.03	316.61	39.95	0.95	34.69	0.96
1:30:30	355.02	316.61	39.93	0.95	34.68	0.96
1:31:30	355.03	316.61	39.95	0.95	34.69	0.96
1:32:30	355.02	316.61	39.93	0.95	34.68	0.96
1:33:30	355.03	316.61	39.95	0.95	34.69	0.96
1:34:30	355.02	316.61	39.93	0.95	34.68	0.96
1:35:30	355.03	316.61	39.95	0.95	34.69	0.96
1:36:30	354.98	316.61	39.89	0.95	34.63	0.96
1:37:30	354.98	316.61	39.89	0.95	34.63	0.96
1:38:30	354.91	316.61	39.82	0.94	34.56	0.96
1:39:30	354.88	316.61	39.79	0.94	34.53	0.96
1:40:30	354.83	316.61	39.74	0.94	34.48	0.96
1:41:30	354.74	316.61	39.65	0.94	34.39	0.95
1:42:30	354.71	316.61	39.61	0.94	34.35	0.95

0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:43:30	354.62	316.61	39.52	0.94	34.26	0.95
1:44:30	354.59	316.61	39.49	0.94	34.23	0.95
1:45:30	354.51	316.61	39.41	0.93	34.15	0.95
1:46:30	354.46	316.61	39.35	0.93	34.09	0.95
1:47:30	354.40	316.61	39.29	0.93	34.03	0.94
1:48:30	354.40	316.61	39.29	0.93	34.03	0.94
1:49:30	354.39	316.61	39.28	0.93	34.02	0.94
1:50:30	354.39	316.61	39.28	0.93	34.02	0.94
1:51:30	354.34	316.61	39.22	0.93	33.96	0.94
1:52:30	354.28	316.61	39.16	0.93	33.91	0.94
1:53:30	354.25	316.61	39.13	0.93	33.87	0.94
1:54:30	354.26	316.61	39.14	0.93	33.88	0.94
1:55:30	354.22	316.61	39.11	0.93	33.85	0.94
1:56:30	354.25	316.61	39.13	0.93	33.87	0.94
1:57:30	354.19	316.61	39.07	0.93	33.81	0.94
1:58:30	354.22	316.61	39.11	0.93	33.85	0.94
1:59:30	354.22	316.61	39.11	0.93	33.85	0.94
2:00:30	354.17	316.55	39.11	0.93	33.79	0.94
2:01:30	354.14	316.55	39.08	0.93	33.76	0.94
2:02:30	354.11	316.55	39.05	0.93	33.73	0.94
2:03:30	354.08	316.55	39.02	0.93	33.70	0.94
2:04:30	354.06	316.55	38.99	0.93	33.68	0.93
2:05:30	354.06	316.55	38.99	0.93	33.68	0.93
2:06:30	354.06	316.55	38.99	0.93	33.68	0.93
2:07:30	354.08	316.55	39.02	0.93	33.70	0.94
2:08:30	354.08	316.55	39.02	0.93	33.70	0.94
2:09:30	354.11	316.55	39.05	0.93	33.73	0.94
2:10:30	354.11	316.55	39.05	0.93	33.73	0.94
2:11:30	354.10	316.55	39.04	0.93	33.72	0.94
2:12:30	354.11	316.55	39.05	0.93	33.73	0.94
2:13:30	354.11	316.55	39.05	0.93	33.73	0.94
2:14:30	354.08	316.55	39.02	0.93	33.70	0.94
2:15:30	354.05	316.55	38.98	0.92	33.67	0.93
2:16:30	354.05	316.55	38.98	0.92	33.67	0.93
2:17:30	354.02	316.55	38.96	0.92	33.64	0.93
2:18:30	354.17	316.55	39.11	0.93	33.79	0.94
2:19:30	354.17	316.55	39.11	0.93	33.79	0.94
2:20:30	354.14	316.55	39.08	0.93	33.76	0.94
2:21:30	354.14	316.55	39.08	0.93	33.76	0.94
2:22:30	354.11	316.55	39.05	0.93	33.73	0.94
2:23:30	354.06	316.55	38.99	0.93	33.68	0.93
2:24:30	354.10	316.55	39.04	0.93	33.72	0.94
2:25:30	354.05	316.55	38.98	0.92	33.67	0.93
2:26:30	354.02	316.55	38.96	0.92	33.64	0.93
2:27:30	354.02	316.55	38.96	0.92	33.64	0.93
2:28:30	354.01	316.55	38.95	0.92	33.63	0.93
2:29:30	354.01	316.55	38.95	0.92	33.63	0.93
2:30:30	354.01	316.55	38.95	0.92	33.63	0.93

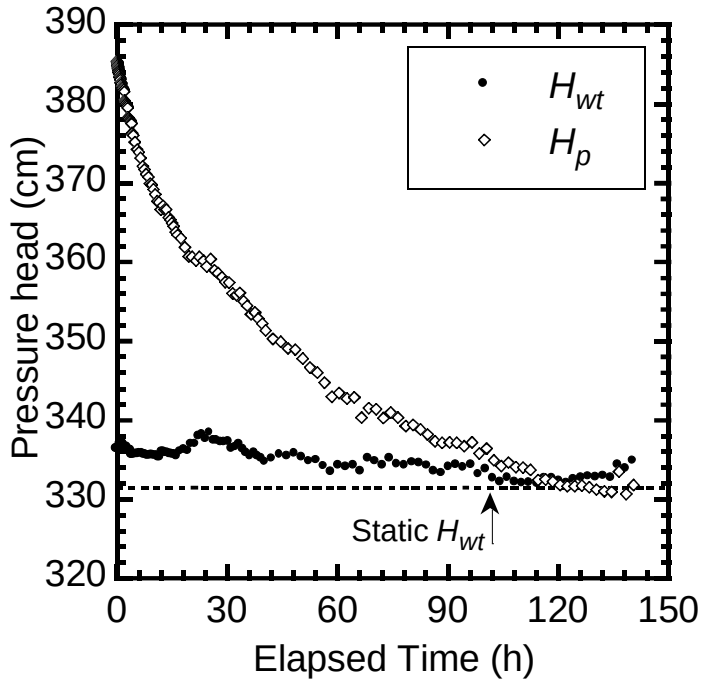
0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:31:30	354.02	316.55	38.96	0.92	33.64	0.93
2:32:30	354.02	316.55	38.96	0.92	33.64	0.93
2:33:30	354.05	316.55	38.98	0.92	33.67	0.93
2:34:30	354.01	316.55	38.95	0.92	33.63	0.93
2:35:30	354.01	316.55	38.95	0.92	33.63	0.93
2:36:30	354.01	316.55	38.95	0.92	33.63	0.93
2:37:30	354.01	316.55	38.95	0.92	33.63	0.93
2:38:30	353.99	316.55	38.92	0.92	33.61	0.93
2:39:30	353.99	316.55	38.92	0.92	33.61	0.93
2:40:30	353.96	316.55	38.89	0.92	33.57	0.93
2:41:30	353.88	316.55	38.81	0.92	33.49	0.93
2:42:30	353.87	316.55	38.80	0.92	33.48	0.93
2:43:30	353.85	316.55	38.78	0.92	33.46	0.93
2:44:30	353.82	316.55	38.74	0.92	33.42	0.93
2:45:30	353.83	316.55	38.75	0.92	33.43	0.93
2:46:30	353.78	316.55	38.71	0.92	33.39	0.93
2:47:30	353.78	316.55	38.71	0.92	33.39	0.93
2:48:30	353.76	316.55	38.68	0.92	33.37	0.93
2:49:30	353.70	316.55	38.63	0.92	33.31	0.92
2:50:30	353.67	316.55	38.59	0.92	33.27	0.92
2:51:30	353.68	316.55	38.60	0.92	33.29	0.92
2:52:30	353.65	316.55	38.57	0.92	33.25	0.92
2:53:30	353.67	316.55	38.59	0.92	33.27	0.92
2:54:30	353.64	316.55	38.56	0.91	33.24	0.92
2:55:30	353.64	316.55	38.56	0.91	33.24	0.92
2:56:30	353.64	316.55	38.56	0.91	33.24	0.92
2:57:30	353.62	316.55	38.53	0.91	33.22	0.92
2:58:30	353.59	316.55	38.51	0.91	33.19	0.92
2:59:30	353.56	316.55	38.48	0.91	33.16	0.92
3:00:30	353.56	316.60	38.43	0.91	33.16	0.92
3:01:30	353.56	316.60	38.43	0.91	33.16	0.92
3:02:30	353.55	316.60	38.42	0.91	33.15	0.92
3:03:30	353.55	316.60	38.42	0.91	33.15	0.92
3:04:30	353.53	316.60	38.39	0.91	33.12	0.92
3:05:30	353.51	316.60	38.37	0.91	33.10	0.92
3:06:30	353.45	316.60	38.31	0.91	33.04	0.92
3:07:30	353.47	316.60	38.34	0.91	33.07	0.92
3:08:30	353.42	316.60	38.28	0.91	33.01	0.92
3:09:30	353.38	316.60	38.25	0.91	32.97	0.92
3:10:30	353.33	316.60	38.19	0.91	32.92	0.91
3:11:30	353.31	316.60	38.17	0.91	32.89	0.91
3:12:30	353.29	316.60	38.15	0.91	32.88	0.91
3:13:30	353.25	316.60	38.11	0.90	32.84	0.91
3:14:30	353.27	316.60	38.13	0.90	32.86	0.91
3:15:30	353.25	316.60	38.11	0.90	32.84	0.91
3:16:30	353.22	316.60	38.07	0.90	32.80	0.91
3:17:30	353.18	316.60	38.04	0.90	32.77	0.91
3:18:30	353.18	316.60	38.04	0.90	32.77	0.91

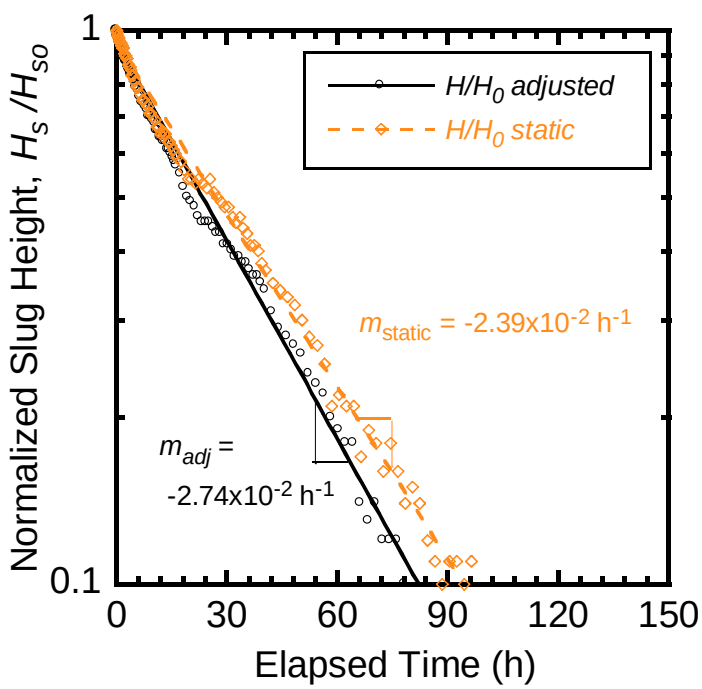
0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:19:30	353.13	316.60	37.98	0.90	32.71	0.91
3:20:30	353.11	316.60	37.96	0.90	32.69	0.91
3:21:30	353.07	316.60	37.92	0.90	32.65	0.91
3:22:30	353.02	316.60	37.87	0.90	32.59	0.90
3:23:30	353.02	316.60	37.87	0.90	32.59	0.90
3:24:30	353.01	316.60	37.85	0.90	32.58	0.90
3:25:30	352.99	316.60	37.83	0.90	32.56	0.90
3:26:30	352.93	316.60	37.77	0.90	32.50	0.90
3:27:30	352.90	316.60	37.74	0.90	32.47	0.90
3:28:30	352.90	316.60	37.74	0.90	32.47	0.90
3:38:30	352.66	316.60	37.50	0.89	32.23	0.89
3:48:30	352.48	316.60	37.30	0.89	32.03	0.89
3:58:30	352.38	316.60	37.20	0.88	31.93	0.89
4:08:30	352.44	316.88	36.98	0.88	32.00	0.89
4:18:30	352.64	316.88	37.18	0.88	32.20	0.89
4:28:30	352.41	316.88	36.94	0.88	31.96	0.89
4:38:30	352.52	316.88	37.06	0.88	32.08	0.89
4:48:30	352.46	316.88	37.00	0.88	32.02	0.89
4:58:30	352.00	316.88	36.52	0.87	31.54	0.88
5:08:30	351.09	316.29	36.18	0.86	30.59	0.85
5:18:30	351.09	316.29	36.18	0.86	30.59	0.85
5:28:30	351.09	316.29	36.18	0.86	30.59	0.85
5:38:30	350.96	316.29	36.05	0.86	30.46	0.85
5:48:30	350.96	316.29	36.05	0.86	30.46	0.85
5:58:30	351.03	316.29	36.12	0.86	30.53	0.85
6:08:30	350.85	317.03	35.17	0.83	30.34	0.84
6:18:30	350.71	317.03	35.02	0.83	30.19	0.84
6:28:30	350.65	317.03	34.96	0.83	30.14	0.84
6:38:30	350.78	317.03	35.09	0.83	30.26	0.84
6:48:30	350.76	317.03	35.07	0.83	30.25	0.84
6:58:30	350.96	317.03	35.28	0.84	30.46	0.85
7:08:30	350.05	316.59	34.79	0.83	29.51	0.82
7:18:30	350.05	316.59	34.79	0.83	29.51	0.82
7:28:30	350.27	316.59	35.02	0.83	29.74	0.83
7:58:30	349.85	316.59	34.59	0.82	29.30	0.81
8:28:30	349.39	317.01	33.66	0.80	28.82	0.80
8:58:30	349.31	317.01	33.58	0.80	28.74	0.80
9:28:30	348.21	316.49	32.98	0.78	27.59	0.77
9:58:30	348.04	316.49	32.80	0.78	27.42	0.76
10:28:30	347.84	316.99	32.07	0.76	27.21	0.76
10:58:30	347.72	316.99	31.95	0.76	27.08	0.75
11:28:30	347.51	317.45	31.25	0.74	26.87	0.75
11:58:30	347.36	317.45	31.10	0.74	26.72	0.74
12:28:30	346.13	317.13	30.16	0.72	25.43	0.71
12:58:30	346.24	317.13	30.27	0.72	25.55	0.71
13:28:30	346.19	317.80	29.52	0.70	25.50	0.71
13:58:30	346.18	317.80	29.51	0.70	25.49	0.71
14:28:30	345.07	317.61	28.55	0.68	24.33	0.68

0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
14:58:30	345.20	317.61	28.69	0.68	24.47	0.68
15:28:30	344.34	317.42	27.99	0.66	23.58	0.65
15:58:30	344.28	317.42	27.92	0.66	23.51	0.65
16:28:30	344.42	318.33	27.13	0.64	23.66	0.66
16:58:30	344.57	318.33	27.28	0.65	23.81	0.66
17:28:30	343.67	318.30	26.38	0.63	22.88	0.64
17:58:30	343.94	318.30	26.66	0.63	23.15	0.64
18:28:30	342.99	318.01	25.97	0.62	22.17	0.62
18:58:30	342.81	318.01	25.79	0.61	21.98	0.61
19:28:30	342.84	318.70	25.09	0.60	22.01	0.61
20:28:30	341.81	318.20	24.55	0.58	20.94	0.58
21:28:30	341.46	318.46	23.91	0.57	20.57	0.57
22:28:30	340.80	318.72	22.96	0.54	19.89	0.55
23:28:30	340.34	318.96	22.23	0.53	19.41	0.54
24:28:30	339.88	319.21	21.50	0.51	18.94	0.53
25:28:30	339.47	319.48	20.79	0.49	18.51	0.51
26:28:30	339.22	319.77	20.23	0.48	18.25	0.51
27:28:30	338.95	320.20	19.50	0.46	17.97	0.50
28:28:30	337.97	319.67	19.03	0.45	16.95	0.47
29:28:30	338.01	319.96	18.76	0.45	16.99	0.47
30:28:30	337.70	320.13	18.26	0.43	16.66	0.46
31:28:30	337.09	320.24	17.52	0.42	16.03	0.44
33:28:30	336.39	320.58	16.44	0.39	15.31	0.42
35:28:30	335.07	319.99	15.68	0.37	13.93	0.39
37:28:30	334.55	320.35	14.76	0.35	13.39	0.37
39:28:30	334.30	320.74	14.10	0.33	13.13	0.36
41:28:30	333.02	320.04	13.49	0.32	11.80	0.33
43:28:30	333.24	320.99	12.73	0.30	12.03	0.33
45:28:30	332.01	320.56	11.90	0.28	10.75	0.30
47:28:30	331.96	321.89	10.47	0.25	10.70	0.30
49:28:30	331.21	321.65	9.93	0.24	9.91	0.28
51:28:30	330.64	321.61	9.39	0.22	9.33	0.26
53:28:30	330.14	321.71	8.77	0.21	8.81	0.24
55:28:30	330.39	322.53	8.17	0.19	9.07	0.25
57:28:30	329.96	322.38	7.88	0.19	8.62	0.24
59:28:30	329.07	321.92	7.44	0.18	7.70	0.21
61:28:30	329.11	322.71	6.66	0.16	7.74	0.21
63:28:30	328.36	322.50	6.10	0.14	6.96	0.19
65:28:30	327.70	321.98	5.95	0.14	6.27	0.17
67:28:30	328.20	322.78	5.63	0.13	6.79	0.19
69:28:30	328.17	323.02	5.35	0.13	6.76	0.19
71:28:30	327.20	322.94	4.43	0.11	5.75	0.16
73:28:30	327.39	323.58	3.96	0.09	5.94	0.16
75:28:30	327.30	323.58	3.87	0.09	5.85	0.16
77:28:30	326.06	322.54	3.67	0.09	4.57	0.13
79:28:30	326.41	323.11	3.44	0.08	4.93	0.14
81:28:30	326.22	323.28	3.05	0.07	4.73	0.13
83:28:30	325.97	323.33	2.75	0.07	4.47	0.12

0+32.3	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
85:28:30	325.50	323.30	2.29	0.05	3.98	0.11
87:28:30	325.43	323.60	1.90	0.05	3.91	0.11
89:28:30	326.09	324.04	2.13	0.05	4.60	0.13
91:28:30	325.81	323.94	1.94	0.05	4.31	0.12
93:28:30	325.96	324.30	1.73	0.04	4.46	0.12
95:28:30	326.28	325.13	1.19	0.03	4.79	0.13
97:28:30	326.19	325.42	0.80	0.02	4.70	0.13
99:28:30	326.09	325.41	0.70	0.02	4.59	0.13
101:28:30	326.16	325.64	0.55	0.01	4.67	0.13
103:28:30	326.26	324.53	1.80	0.04	4.78	0.13
105:28:30	325.60	323.50	2.18	0.05	4.08	0.11
107:28:30	325.01	323.11	1.98	0.05	3.48	0.10
109:28:30	325.12	323.15	2.05	0.05	3.59	0.10
111:28:30	324.84	322.63	2.30	0.05	3.29	0.09
113:28:30	324.67	322.33	2.43	0.06	3.12	0.09
115:28:30	324.55	322.25	2.39	0.06	3.00	0.08
117:28:30	324.43	322.74	1.75	0.04	2.87	0.08
119:28:30	323.40	322.01	1.44	0.03	1.80	0.05
121:28:30	323.32	322.12	1.25	0.03	1.72	0.05
123:28:30	323.14	322.06	1.12	0.03	1.53	0.04
125:28:30	323.09	321.57	1.58	0.04	1.48	0.04
127:28:30	322.72	320.68	2.12	0.05	1.09	0.03
129:28:30	321.49	319.92	1.63	0.04	-0.19	-0.01
131:28:30	321.71	320.24	1.52	0.04	0.04	0.00
133:28:30	321.17	319.93	1.28	0.03	-0.52	-0.01
135:28:30	320.97	319.53	1.50	0.04	-0.73	-0.02
137:28:30	320.71	319.22	1.55	0.04	-1.00	-0.03
139:28:30	321.17	319.94	1.29	0.03	-0.52	-0.01
141:28:30	321.08	319.90	1.23	0.03	-0.62	-0.02

Test Location (m)	**0+32.3**	**Effective Stress on date of test (kPa)**	**12.0**
Depth (m)	6.0	**Test # in well**	3
Well #	2	**Test Type**	Rate of Fall
Start Date of Test	11/29/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	331.5
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	51.0/56.1
k_{adj} (cm/s)	2.25E-07	**k_{static} (cm/s)**	1.96E-07





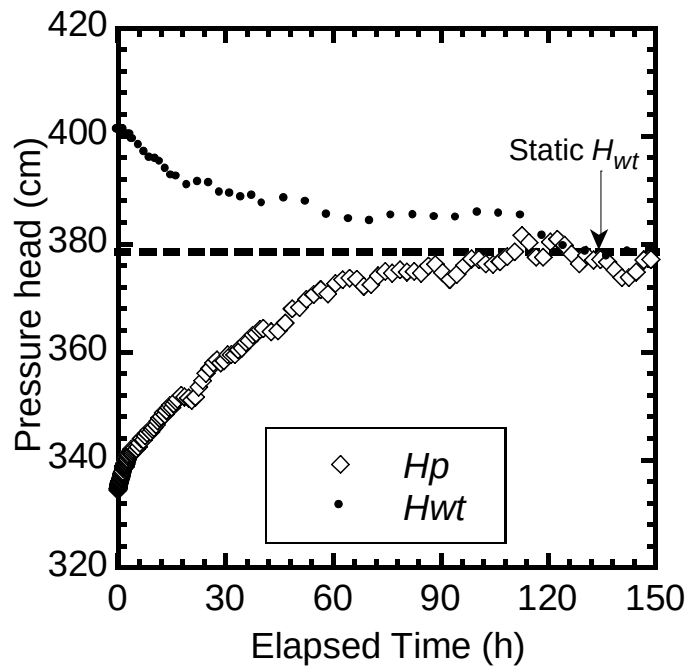
0+32.3	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	385.39	336.38	50.96	1.00	56.06	1.00
0:01:00	385.34	336.38	50.90	1.00	56.00	1.00
0:02:00	385.31	336.38	50.87	1.00	55.97	1.00
0:03:00	385.25	336.38	50.82	1.00	55.91	1.00
0:04:00	385.20	336.38	50.76	1.00	55.86	1.00
0:05:00	385.15	336.38	50.71	1.00	55.81	1.00
0:06:00	385.10	336.38	50.65	0.99	55.75	0.99
0:07:00	385.06	336.38	50.62	0.99	55.72	0.99
0:08:00	385.01	336.38	50.56	0.99	55.66	0.99
0:09:00	384.98	336.38	50.53	0.99	55.63	0.99
0:10:00	384.91	336.38	50.45	0.99	55.55	0.99
0:11:00	384.89	336.38	50.44	0.99	55.54	0.99
0:12:00	384.84	336.38	50.39	0.99	55.49	0.99
0:13:00	384.78	336.38	50.32	0.99	55.42	0.99
0:14:00	384.71	336.38	50.25	0.99	55.34	0.99
0:15:00	384.67	336.38	50.21	0.99	55.31	0.99
0:16:00	384.59	336.38	50.12	0.98	55.22	0.99
0:17:00	384.56	336.38	50.09	0.98	55.19	0.98
0:18:00	384.50	336.38	50.04	0.98	55.14	0.98
0:19:00	384.45	336.38	49.98	0.98	55.08	0.98
0:20:00	384.40	336.38	49.93	0.98	55.03	0.98
0:21:00	384.35	336.38	49.87	0.98	54.97	0.98
0:22:00	384.29	336.38	49.82	0.98	54.92	0.98
0:23:00	384.28	336.38	49.81	0.98	54.90	0.98
0:24:00	384.23	336.38	49.75	0.98	54.85	0.98
0:25:00	384.20	336.38	49.72	0.98	54.82	0.98
0:30:00	383.99	336.38	49.50	0.97	54.60	0.97
0:35:00	383.75	336.38	49.26	0.97	54.36	0.97
0:40:00	383.51	336.38	49.01	0.96	54.10	0.97
0:45:00	383.34	336.38	48.83	0.96	53.93	0.96
0:50:00	383.26	336.38	48.74	0.96	53.84	0.96
0:55:00	383.02	336.38	48.49	0.95	53.59	0.96
1:00:00	382.68	336.91	47.58	0.93	53.24	0.95
1:05:00	382.61	336.91	47.52	0.93	53.17	0.95
1:10:00	382.59	336.91	47.50	0.93	53.15	0.95
1:15:00	382.46	336.91	47.35	0.93	53.01	0.95
1:20:00	382.17	336.91	47.06	0.92	52.71	0.94
1:25:00	382.10	336.91	46.98	0.92	52.63	0.94
1:30:00	382.07	336.91	46.95	0.92	52.60	0.94
1:35:00	381.96	336.91	46.84	0.92	52.49	0.94
1:40:00	381.84	336.91	46.72	0.92	52.37	0.93
1:45:00	381.81	336.91	46.68	0.92	52.34	0.93
1:50:00	381.77	336.91	46.64	0.92	52.29	0.93
1:55:00	381.57	336.91	46.43	0.91	52.09	0.93
2:00:00	380.44	336.55	45.63	0.90	50.91	0.91
2:05:00	380.44	336.55	45.63	0.90	50.91	0.91
2:10:00	380.28	336.55	45.47	0.89	50.75	0.91
2:15:00	380.17	336.55	45.35	0.89	50.63	0.90

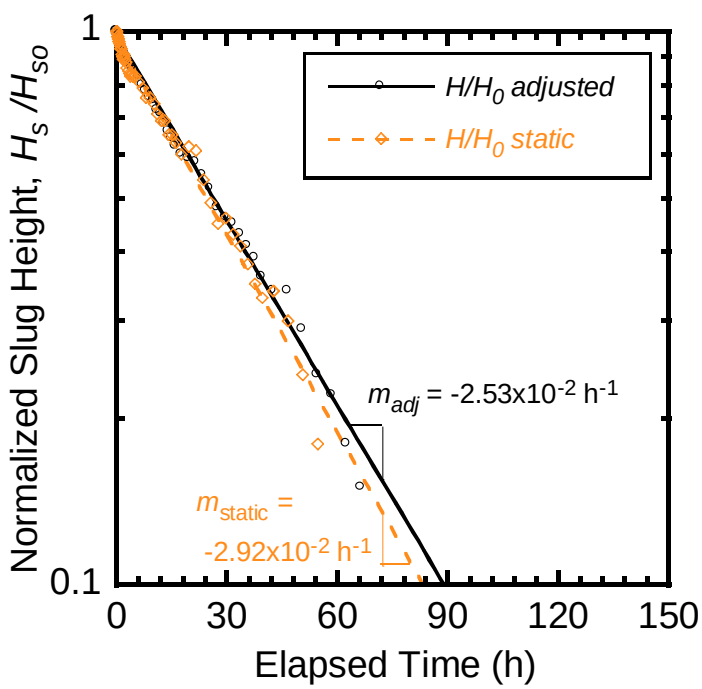
0+32.3	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:20:00	380.09	336.55	45.27	0.89	50.55	0.90
2:25:00	380.03	336.55	45.21	0.89	50.48	0.90
2:35:00	379.84	336.55	45.01	0.88	50.29	0.90
2:45:00	379.69	336.55	44.85	0.88	50.13	0.89
2:55:00	379.51	336.55	44.67	0.88	49.95	0.89
3:05:00	378.27	336.15	43.79	0.86	48.65	0.87
3:15:00	378.14	336.15	43.66	0.86	48.52	0.87
3:25:00	378.03	336.15	43.54	0.85	48.40	0.86
3:35:00	377.88	336.15	43.38	0.85	48.25	0.86
3:45:00	377.66	336.15	43.15	0.85	48.01	0.86
3:55:00	377.53	336.15	43.02	0.84	47.88	0.85
4:05:00	376.27	335.58	42.32	0.83	46.58	0.83
4:15:00	376.11	335.58	42.14	0.83	46.40	0.83
4:25:00	376.02	335.58	42.05	0.83	46.31	0.83
4:55:00	375.13	335.58	41.13	0.81	45.39	0.81
5:25:00	374.22	335.65	40.10	0.79	44.44	0.79
5:55:00	373.86	335.65	39.73	0.78	44.07	0.79
6:25:00	373.16	335.71	38.94	0.76	43.34	0.77
6:55:00	372.11	335.71	37.85	0.74	42.24	0.75
7:25:00	371.66	335.55	37.55	0.74	41.78	0.75
7:55:00	371.13	335.55	37.00	0.73	41.23	0.74
8:25:00	370.73	335.46	36.68	0.72	40.82	0.73
8:55:00	369.93	335.46	35.85	0.70	39.98	0.71
9:25:00	369.75	335.48	35.64	0.70	39.80	0.71
9:55:00	369.17	335.48	35.04	0.69	39.19	0.70
10:25:00	368.54	335.41	34.45	0.68	38.53	0.69
10:55:00	367.74	335.41	33.61	0.66	37.70	0.67
11:25:00	367.54	335.25	33.57	0.66	37.49	0.67
11:55:00	366.64	335.25	32.64	0.64	36.56	0.65
12:25:00	367.09	335.93	32.40	0.64	37.03	0.66
12:55:00	366.59	335.93	31.88	0.63	36.51	0.65
13:25:00	366.59	335.78	32.04	0.63	36.50	0.65
13:55:00	365.63	335.78	31.04	0.61	35.51	0.63
14:25:00	365.37	335.67	30.88	0.61	35.24	0.63
14:55:00	364.90	335.67	30.39	0.60	34.75	0.62
15:25:00	364.52	335.58	30.08	0.59	34.35	0.61
15:55:00	363.77	335.58	29.30	0.58	33.57	0.60
16:25:00	363.44	335.33	29.23	0.57	33.24	0.59
17:25:00	363.01	335.94	28.14	0.55	32.78	0.58
18:25:00	361.84	336.20	26.66	0.52	31.57	0.56
19:25:00	360.75	336.02	25.71	0.50	30.44	0.54
20:25:00	360.69	336.87	24.77	0.49	30.38	0.54
21:25:00	360.15	336.86	24.21	0.48	29.81	0.53
22:25:00	360.67	337.94	23.64	0.46	30.36	0.54
23:25:00	360.17	338.10	22.94	0.45	29.83	0.53
24:25:00	359.47	337.57	22.77	0.45	29.10	0.52
25:25:00	360.38	338.33	22.92	0.45	30.05	0.54
26:25:00	358.92	337.34	22.44	0.44	28.53	0.51

0+32.3	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
27:25:00	358.59	337.35	22.09	0.43	28.19	0.50
28:25:00	358.08	337.14	21.77	0.43	27.66	0.49
29:25:00	357.46	337.13	21.14	0.41	27.02	0.48
30:25:00	357.35	337.18	20.97	0.41	29.70	0.48
31:25:00	356.04	336.33	20.50	0.40	25.54	0.46
32:25:00	355.82	336.46	20.13	0.39	25.31	0.45
33:25:00	356.15	336.88	20.03	0.39	25.65	0.46
34:25:00	355.06	336.27	19.53	0.38	24.52	0.44
35:25:00	354.45	335.81	19.38	0.38	23.88	0.43
36:25:00	353.40	335.33	18.79	0.37	22.80	0.41
37:25:00	353.59	335.81	18.49	0.36	23.00	0.41
38:25:00	352.87	335.37	18.19	0.36	22.24	0.40
39:25:00	352.23	335.06	17.85	0.35	21.58	0.38
40:25:00	351.34	334.66	17.34	0.34	20.65	0.37
42:25:00	350.29	335.04	15.86	0.31	19.56	0.35
44:25:00	349.93	335.60	14.90	0.29	19.19	0.34
46:25:00	349.05	335.40	14.19	0.28	18.27	0.33
48:25:00	348.91	335.73	13.70	0.27	18.13	0.32
50:25:00	347.79	335.20	13.09	0.26	16.96	0.30
52:25:00	346.67	334.73	12.42	0.24	15.80	0.28
54:25:00	346.02	334.85	11.61	0.23	15.12	0.27
56:25:00	344.74	334.08	11.09	0.22	13.79	0.25
58:25:00	343.00	333.34	10.04	0.20	11.98	0.21
60:25:00	343.50	334.22	9.65	0.19	12.50	0.22
62:25:00	342.75	333.98	9.12	0.18	11.72	0.21
64:25:00	342.86	334.25	8.96	0.18	11.84	0.21
66:25:00	340.37	333.46	7.19	0.14	9.25	0.17
68:25:00	341.56	335.07	6.74	0.13	10.48	0.19
70:25:00	341.40	334.73	6.93	0.14	10.31	0.18
72:25:00	340.27	334.23	6.28	0.12	9.14	0.16
74:25:00	341.00	335.08	6.15	0.12	9.90	0.18
76:25:00	340.32	334.33	6.23	0.12	9.20	0.16
78:25:00	339.24	334.26	5.18	0.10	8.08	0.14
80:25:00	339.39	334.55	5.03	0.10	8.23	0.15
82:25:00	338.86	334.47	4.57	0.09	7.68	0.14
84:25:00	338.18	334.12	4.22	0.08	6.97	0.12
86:25:00	337.39	333.45	4.10	0.08	6.15	0.11
88:25:00	337.12	333.14	4.14	0.08	5.87	0.10
90:25:00	337.18	333.98	3.32	0.07	5.93	0.11
92:25:00	337.17	334.28	3.00	0.06	5.91	0.11
94:25:00	336.70	333.92	2.89	0.06	5.43	0.10
96:25:00	337.19	334.31	3.00	0.06	5.94	0.11
98:25:00	335.78	333.09	2.80	0.05	4.48	0.08
100:25:00	336.43	333.73	2.80	0.06	5.15	0.09
102:25:00	334.91	332.61	2.40	0.05	3.57	0.06
104:25:00	334.23	332.09	2.23	0.04	2.87	0.05
106:25:00	334.67	332.64	2.10	0.04	3.32	0.06
108:25:00	334.08	332.06	2.10	0.04	2.70	0.05

0+32.3	**6.0 m**					**Test #3**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
110:25:00	333.97	331.96	2.10	0.04	2.59	0.05
112:25:00	333.71	331.99	1.79	0.04	2.32	0.04
114:25:00	332.44	331.84	0.63	0.01	1.00	0.02

Test Location (m)	**0+32.3**	**Effective Stress on date of test (kPa)**	**12.0**
Depth (m)	6.0	**Test # in well**	4
Well #	2	**Test Type**	Rate of Rise
Start Date of Test	1/25/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	378.6
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	69.1/45.7
k_{adj} (cm/s)	2.08E-07	**k_{static} (cm/s)**	2.40E-07





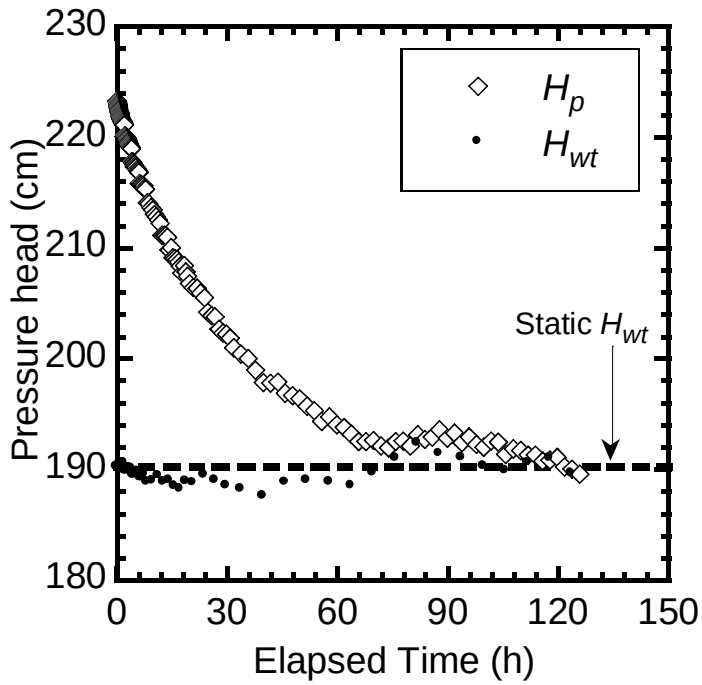
0+32.3	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	334.62	401.11	69.13	1.00	45.67	1.00
0:00:30	334.45	401.11	69.30	1.00	45.85	1.00
0:01:00	334.71	401.11	69.04	1.00	45.59	1.00
0:01:30	334.74	401.11	69.01	1.00	45.55	1.00
0:02:00	334.76	401.11	68.98	1.00	45.53	1.00
0:02:30	334.77	401.11	68.97	1.00	45.52	1.00
0:03:00	334.84	401.11	68.90	1.00	45.44	0.99
0:03:30	334.93	401.11	68.81	1.00	45.36	0.99
0:04:00	334.98	401.11	68.75	0.99	45.30	0.99
0:04:30	335.00	401.11	68.73	0.99	45.28	0.99
0:05:00	335.01	401.11	68.72	0.99	45.27	0.99
0:06:00	335.09	401.11	68.64	0.99	45.19	0.99
0:07:00	335.14	401.11	68.59	0.99	45.14	0.99
0:08:00	335.14	401.11	68.59	0.99	45.14	0.99
0:09:00	335.18	401.11	68.55	0.99	45.09	0.99
0:10:00	335.23	401.11	68.49	0.99	45.04	0.99
0:11:00	335.29	401.11	68.44	0.99	44.98	0.98
0:12:00	335.36	401.11	68.36	0.99	44.91	0.98
0:13:00	335.36	401.11	68.36	0.99	44.91	0.98
0:14:00	335.42	401.11	68.29	0.99	44.84	0.98
0:15:00	335.50	401.11	68.22	0.99	44.76	0.98
0:16:00	335.53	401.11	68.18	0.99	44.73	0.98
0:17:00	335.55	401.11	68.16	0.99	44.71	0.98
0:18:00	335.60	401.11	68.11	0.99	44.65	0.98
0:19:00	335.67	401.11	68.04	0.98	44.59	0.98
0:20:00	335.70	401.11	68.01	0.98	44.55	0.98
0:21:00	335.75	401.11	67.95	0.98	44.50	0.97
0:22:00	335.77	401.11	67.93	0.98	44.48	0.97
0:23:00	335.82	401.11	67.88	0.98	44.42	0.97
0:24:00	335.88	401.11	67.82	0.98	44.37	0.97
0:25:00	335.91	401.11	67.79	0.98	44.34	0.97
0:26:00	335.97	401.11	67.72	0.98	44.27	0.97
0:27:00	336.02	401.11	67.67	0.98	44.22	0.97
0:28:00	336.06	401.11	67.63	0.98	44.18	0.97
0:29:00	336.08	401.11	67.61	0.98	44.16	0.97
0:30:00	336.13	401.11	67.56	0.98	44.11	0.97
0:31:00	336.15	401.11	67.54	0.98	44.08	0.97
0:32:00	336.18	401.11	67.50	0.98	44.05	0.96
0:33:00	336.21	401.11	67.47	0.98	44.02	0.96
0:34:00	336.24	401.11	67.45	0.98	44.00	0.96
0:35:00	336.29	401.11	67.39	0.97	43.94	0.96
0:40:00	336.41	401.11	67.27	0.97	43.82	0.96
0:45:00	336.65	401.11	67.02	0.97	43.57	0.95
0:50:00	336.80	401.11	66.87	0.97	43.41	0.95
0:55:00	336.95	401.11	66.70	0.96	43.25	0.95
1:00:00	337.21	401.11	66.44	0.96	42.99	0.94

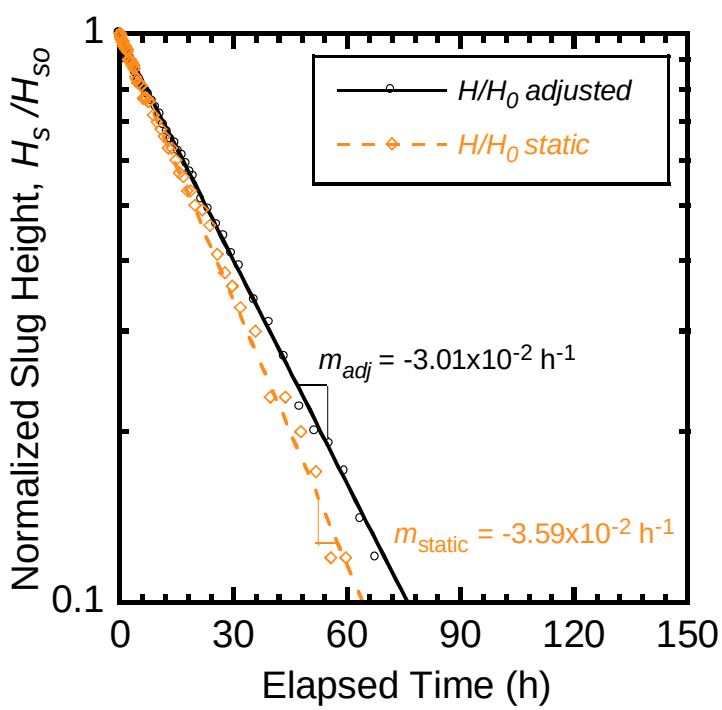
0+32.3	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:05:00	337.40	401.11	66.24	0.96	42.79	0.94
1:10:00	337.59	401.11	66.04	0.96	42.59	0.93
1:15:00	337.72	401.11	65.90	0.95	42.45	0.93
1:20:00	337.89	401.11	65.73	0.95	42.27	0.93
1:25:00	338.41	401.11	65.19	0.94	41.74	0.91
1:30:00	338.65	401.11	64.94	0.94	41.48	0.91
1:35:00	338.82	401.11	64.76	0.94	41.31	0.90
1:40:00	338.98	401.11	64.60	0.93	41.14	0.90
1:45:00	339.18	401.11	64.39	0.93	40.94	0.90
1:50:00	339.41	401.11	64.15	0.93	40.69	0.89
1:55:00	338.65	400.10	63.89	0.92	41.48	0.91
2:00:00	338.79	400.10	63.75	0.92	41.34	0.91
2:05:00	338.98	400.10	63.55	0.92	41.14	0.90
2:10:00	339.13	400.10	63.40	0.92	40.99	0.90
2:15:00	339.32	400.10	63.20	0.91	40.79	0.89
2:20:00	339.59	400.10	62.92	0.91	40.51	0.89
2:25:00	339.70	400.10	62.81	0.91	40.40	0.88
2:30:00	339.98	400.10	62.51	0.90	40.10	0.88
2:35:00	340.20	400.10	62.28	0.90	39.87	0.87
2:45:00	340.58	400.10	61.88	0.90	39.48	0.86
2:55:00	340.85	400.18	61.69	0.89	39.20	0.86
3:05:00	341.08	400.18	61.45	0.89	38.96	0.85
3:15:00	341.39	400.18	61.12	0.88	38.63	0.85
3:25:00	341.51	400.18	61.00	0.88	38.51	0.84
3:35:00	341.78	400.18	60.72	0.88	38.23	0.84
3:45:00	342.06	400.18	60.43	0.87	37.94	0.83
3:55:00	341.19	399.28	60.39	0.87	38.84	0.85
4:05:00	341.52	399.28	60.05	0.87	38.50	0.84
4:15:00	341.82	399.28	59.75	0.86	38.19	0.84
4:25:00	342.09	399.28	59.46	0.86	37.91	0.83
4:35:00	342.23	399.28	59.32	0.86	37.77	0.83
5:05:00	342.04	398.22	58.42	0.85	37.96	0.83
5:35:00	342.51	398.22	57.92	0.84	37.47	0.82
6:05:00	343.15	398.14	57.18	0.83	36.81	0.81
6:35:00	344.00	398.14	56.30	0.81	35.92	0.79
7:05:00	343.76	396.99	55.35	0.80	36.17	0.79
7:35:00	344.44	396.99	54.64	0.79	35.46	0.78
8:05:00	345.04	396.94	53.96	0.78	34.84	0.76
8:35:00	345.47	396.94	53.52	0.77	34.40	0.75
9:05:00	345.16	395.87	52.72	0.76	34.72	0.76
9:35:00	345.66	395.87	52.20	0.76	34.20	0.75
10:05:00	346.02	395.63	51.59	0.75	33.83	0.74
10:35:00	346.49	395.63	51.10	0.74	33.33	0.73
11:05:00	347.21	395.32	50.03	0.72	32.59	0.71
11:35:00	347.69	395.32	49.52	0.72	32.08	0.70
12:05:00	348.06	395.11	48.92	0.71	31.70	0.69
12:35:00	348.78	395.11	48.17	0.70	30.95	0.68
13:05:00	348.43	393.86	47.24	0.68	31.32	0.69

0+32.3	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
13:35:00	349.14	393.86	46.50	0.67	30.58	0.67
14:05:00	349.82	393.69	45.61	0.66	29.87	0.65
14:35:00	350.19	393.69	45.23	0.65	29.48	0.65
15:05:00	349.78	392.60	44.52	0.64	29.91	0.65
15:35:00	350.36	392.60	43.92	0.64	29.31	0.64
16:05:00	350.93	392.41	43.12	0.62	28.72	0.63
16:35:00	351.24	392.41	42.81	0.62	28.40	0.62
17:35:00	352.04	392.26	41.82	0.60	27.56	0.60
18:35:00	351.72	391.09	40.93	0.59	27.89	0.61
19:35:00	351.53	390.77	40.80	0.59	28.09	0.62
20:35:00	351.12	390.22	40.66	0.59	28.52	0.62
21:35:00	351.66	390.36	40.24	0.58	27.96	0.61
22:35:00	353.48	391.38	39.40	0.57	26.06	0.57
23:35:00	354.69	391.47	38.25	0.55	24.81	0.54
24:35:00	356.05	391.76	37.14	0.54	23.40	0.51
25:35:00	356.95	391.21	35.61	0.52	22.45	0.49
26:35:00	357.98	390.81	34.14	0.49	21.39	0.47
27:35:00	358.58	390.70	33.40	0.48	20.77	0.45
28:35:00	357.97	389.48	32.77	0.47	21.40	0.47
29:35:00	358.35	389.20	32.08	0.46	21.01	0.46
30:35:00	359.50	389.77	31.48	0.46	19.81	0.43
31:35:00	359.50	389.31	31.00	0.45	19.81	0.43
32:35:00	359.50	388.77	30.44	0.44	19.81	0.43
33:35:00	360.41	389.19	29.92	0.43	18.86	0.41
34:35:00	360.70	388.54	28.95	0.42	18.56	0.41
35:35:00	361.84	388.98	28.22	0.41	17.38	0.38
36:35:00	362.09	388.41	27.37	0.40	17.12	0.37
37:35:00	363.15	388.82	26.68	0.39	16.01	0.35
38:35:00	363.51	388.35	25.83	0.37	15.64	0.34
39:35:00	364.18	387.84	24.61	0.36	14.94	0.33
40:35:00	364.35	387.46	24.03	0.35	14.77	0.32
42:35:00	363.73	386.61	23.78	0.34	15.41	0.34
44:35:00	364.01	387.17	24.08	0.35	15.12	0.33
46:35:00	365.41	388.33	23.83	0.34	13.66	0.30
48:35:00	368.07	388.45	21.20	0.31	10.90	0.24
50:35:00	368.22	387.40	19.93	0.29	10.74	0.24
52:35:00	369.72	387.63	18.63	0.27	9.18	0.20
54:35:00	370.67	386.90	16.87	0.24	8.19	0.18
56:35:00	371.61	386.64	15.63	0.23	7.22	0.16
58:35:00	370.80	385.30	15.08	0.22	8.06	0.18
60:35:00	372.67	385.98	13.84	0.20	6.11	0.13
62:35:00	373.39	385.09	12.16	0.18	5.36	0.12
64:35:00	373.68	384.47	11.22	0.16	5.07	0.11
66:35:00	373.47	383.75	10.69	0.15	5.29	0.12
68:35:00	372.19	383.88	12.16	0.18	6.61	0.14
70:35:00	372.45	384.21	12.23	0.18	6.34	0.14
72:35:00	374.13	385.05	11.35	0.16	4.60	0.10
74:35:00	374.96	385.51	10.97	0.16	3.73	0.08

0+32.3	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
76:35:00	374.61	385.12	10.92	0.16	4.09	0.09
78:35:00	375.22	385.45	10.64	0.15	3.47	0.08
80:35:00	374.86	385.47	11.03	0.16	3.84	0.08
82:35:00	374.96	385.20	10.65	0.15	3.73	0.08
84:35:00	374.67	384.77	10.51	0.15	4.04	0.09
86:35:00	375.92	385.27	9.72	0.14	2.73	0.06
88:35:00	376.31	384.90	8.93	0.13	2.33	0.05
90:35:00	374.77	383.51	9.09	0.13	3.93	0.09
92:35:00	373.46	383.55	10.49	0.15	5.29	0.12
94:35:00	374.47	384.84	10.78	0.16	4.24	0.09
96:35:00	376.10	385.51	9.78	0.14	2.55	0.06
98:35:00	377.28	385.95	9.02	0.13	1.32	0.03
100:35:00	377.14	385.70	8.90	0.13	1.47	0.03
102:35:00	376.37	385.27	9.26	0.13	2.27	0.05
104:35:00	376.27	385.50	9.60	0.14	2.37	0.05
106:35:00	376.78	385.51	9.08	0.13	1.84	0.04
108:35:00	377.64	385.64	8.32	0.12	0.94	0.02
110:35:00	378.56	385.10	6.80	0.10	-0.01	0.00
112:35:00	381.65	385.07	3.56	0.05	-3.22	-0.07
114:35:00	380.37	383.31	3.06	0.04	-1.89	-0.04
116:35:00	377.62	381.89	4.44	0.06	0.96	0.02
118:35:00	377.62	381.41	3.93	0.06	0.96	0.02
120:35:00	380.43	382.35	1.99	0.03	-1.95	-0.04
122:35:00	380.93	381.20	0.29	0.00	-2.47	-0.05
124:35:00	379.77	379.52	-0.26	0.00	-1.26	-0.03
126:35:00	378.22	378.60	0.40	0.01	0.35	0.01
128:35:00	376.37	377.85	1.54	0.02	2.27	0.05
130:35:00	378.03	378.51	0.51	0.01	0.55	0.01
132:35:00	377.12	377.68	0.58	0.01	1.49	0.03
134:35:00	377.21	377.59	0.39	0.01	1.39	0.03
136:35:00	376.71	377.59	0.91	0.01	1.92	0.04
138:35:00	375.24	376.96	1.79	0.03	3.44	0.08
140:35:00	373.86	377.64	3.93	0.06	4.88	0.11
142:35:00	373.82	378.50	4.87	0.07	4.92	0.11
144:35:00	374.84	379.29	4.62	0.07	3.85	0.08
146:35:00	377.10	380.41	3.45	0.05	1.51	0.03
148:35:00	377.19	379.22	2.10	0.03	1.41	0.03
150:35:00	376.61	378.44	1.90	0.03	2.01	0.04

Test Location (m)	**0+33.0**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	1
Well #	3	**Test Type**	Rate of Fall
Start Date of Test	10/20/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	190.3
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	34.4
k_{adj} (cm/s)	2.47E-07	**k_{static} (cm/s)**	2.94E-07





0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	223.29	190.26	34.35	1.00	34.35	1.00
0:00:10	223.28	190.26	34.34	1.00	34.34	1.00
0:00:20	223.29	190.26	34.35	1.00	34.35	1.00
0:00:30	223.29	190.26	34.35	1.00	34.35	1.00
0:00:40	223.28	190.26	34.34	1.00	34.34	1.00
0:00:50	223.26	190.26	34.31	1.00	34.31	1.00
0:01:00	223.26	190.26	34.31	1.00	34.31	1.00
0:01:10	223.26	190.26	34.31	1.00	34.31	1.00
0:01:20	223.24	190.26	34.29	1.00	34.29	1.00
0:01:30	223.24	190.26	34.29	1.00	34.29	1.00
0:01:40	223.24	190.26	34.29	1.00	34.29	1.00
0:01:50	223.24	190.26	34.29	1.00	34.29	1.00
0:02:00	223.24	190.26	34.29	1.00	34.29	1.00
0:02:10	223.22	190.26	34.28	1.00	34.28	1.00
0:02:20	223.20	190.26	34.26	1.00	34.26	1.00
0:02:30	223.22	190.26	34.28	1.00	34.28	1.00
0:02:40	223.22	190.26	34.28	1.00	34.28	1.00
0:02:50	223.20	190.26	34.26	1.00	34.26	1.00
0:03:00	223.18	190.26	34.23	1.00	34.23	1.00
0:03:10	223.17	190.26	34.22	1.00	34.22	1.00
0:03:20	223.17	190.26	34.22	1.00	34.22	1.00
0:03:30	223.17	190.26	34.22	1.00	34.22	1.00
0:03:40	223.17	190.26	34.22	1.00	34.22	1.00
0:03:50	223.20	190.26	34.26	1.00	34.26	1.00
0:04:00	223.17	190.26	34.22	1.00	34.22	1.00
0:04:10	223.17	190.26	34.22	1.00	34.22	1.00
0:04:20	223.18	190.26	34.23	1.00	34.23	1.00
0:04:30	223.15	190.26	34.20	1.00	34.20	1.00
0:04:40	223.15	190.26	34.20	1.00	34.20	1.00
0:04:50	223.15	190.26	34.20	1.00	34.20	1.00
0:05:00	223.12	190.26	34.18	0.99	34.18	0.99
0:05:10	223.15	190.26	34.20	1.00	34.20	1.00
0:05:20	223.11	190.26	34.16	0.99	34.16	0.99
0:05:30	223.15	190.26	34.20	1.00	34.20	1.00
0:05:40	223.15	190.26	34.20	1.00	34.20	1.00
0:05:50	223.12	190.26	34.18	0.99	34.18	0.99
0:06:00	223.12	190.26	34.18	0.99	34.18	0.99
0:06:10	223.11	190.26	34.16	0.99	34.16	0.99
0:06:20	223.12	190.26	34.18	0.99	34.18	0.99
0:06:30	223.11	190.26	34.16	0.99	34.16	0.99
0:06:40	223.11	190.26	34.16	0.99	34.16	0.99
0:06:50	223.11	190.26	34.16	0.99	34.16	0.99
0:07:00	223.09	190.26	34.14	0.99	34.14	0.99
0:07:10	223.09	190.26	34.14	0.99	34.14	0.99
0:07:20	223.07	190.26	34.12	0.99	34.12	0.99
0:07:30	223.11	190.26	34.16	0.99	34.16	0.99
0:07:40	223.07	190.26	34.12	0.99	34.12	0.99
0:07:50	223.09	190.26	34.14	0.99	34.14	0.99

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:00	223.09	190.26	34.14	0.99	34.14	0.99
0:08:10	223.07	190.26	34.12	0.99	34.12	0.99
0:08:20	223.09	190.26	34.14	0.99	34.14	0.99
0:08:30	223.07	190.26	34.12	0.99	34.12	0.99
0:08:40	223.09	190.26	34.14	0.99	34.14	0.99
0:08:50	223.09	190.26	34.14	0.99	34.14	0.99
0:09:00	223.06	190.26	34.11	0.99	34.11	0.99
0:09:10	223.01	190.26	34.06	0.99	34.06	0.99
0:09:20	223.06	190.26	34.11	0.99	34.11	0.99
0:09:30	223.04	190.26	34.08	0.99	34.08	0.99
0:09:40	223.06	190.26	34.11	0.99	34.11	0.99
0:09:50	223.06	190.26	34.11	0.99	34.11	0.99
0:10:00	223.04	190.26	34.08	0.99	34.08	0.99
0:10:10	223.06	190.26	34.11	0.99	34.11	0.99
0:10:20	223.04	190.26	34.08	0.99	34.08	0.99
0:10:30	223.04	190.26	34.08	0.99	34.08	0.99
0:10:40	223.01	190.26	34.06	0.99	34.06	0.99
0:10:50	223.06	190.26	34.11	0.99	34.11	0.99
0:11:00	223.00	190.26	34.05	0.99	34.05	0.99
0:11:10	223.01	190.26	34.06	0.99	34.06	0.99
0:11:20	223.00	190.26	34.05	0.99	34.05	0.99
0:11:30	223.01	190.26	34.06	0.99	34.06	0.99
0:11:40	222.98	190.26	34.03	0.99	34.03	0.99
0:11:50	223.00	190.26	34.05	0.99	34.05	0.99
0:12:00	222.98	190.26	34.03	0.99	34.03	0.99
0:12:10	222.98	190.26	34.03	0.99	34.03	0.99
0:12:20	222.96	190.26	34.00	0.99	34.00	0.99
0:12:30	222.96	190.26	34.00	0.99	34.00	0.99
0:13:00	222.96	190.26	34.00	0.99	34.00	0.99
0:13:30	222.93	190.26	33.97	0.99	33.97	0.99
0:14:00	222.93	190.26	33.97	0.99	33.97	0.99
0:14:30	222.90	190.26	33.95	0.99	33.95	0.99
0:15:00	222.90	190.26	33.95	0.99	33.95	0.99
0:15:30	222.89	190.26	33.93	0.99	33.93	0.99
0:16:00	222.84	190.26	33.88	0.99	33.88	0.99
0:16:30	222.84	190.26	33.88	0.99	33.88	0.99
0:17:00	222.79	190.26	33.83	0.98	33.83	0.98
0:17:30	222.79	190.26	33.83	0.98	33.83	0.98
0:18:00	222.79	190.26	33.83	0.98	33.83	0.98
0:18:30	222.75	190.26	33.78	0.98	33.78	0.98
0:19:00	222.73	190.26	33.76	0.98	33.76	0.98
0:19:30	222.75	190.26	33.78	0.98	33.78	0.98
0:20:00	222.70	190.26	33.74	0.98	33.74	0.98
0:20:30	222.70	190.26	33.74	0.98	33.74	0.98
0:21:00	222.70	190.26	33.74	0.98	33.74	0.98
0:21:30	222.67	190.26	33.70	0.98	33.70	0.98
0:22:00	222.69	190.26	33.73	0.98	33.73	0.98
0:22:30	222.67	190.26	33.70	0.98	33.70	0.98

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:23:00	222.65	190.26	33.68	0.98	33.68	0.98
0:23:30	222.65	190.26	33.68	0.98	33.68	0.98
0:24:00	222.64	190.26	33.67	0.98	33.67	0.98
0:24:30	222.58	190.26	33.61	0.98	33.61	0.98
0:25:00	222.59	190.26	33.62	0.98	33.62	0.98
0:25:30	222.59	190.26	33.62	0.98	33.62	0.98
0:26:00	222.59	190.26	33.62	0.98	33.62	0.98
0:26:30	222.56	190.26	33.59	0.98	33.59	0.98
0:27:00	222.56	190.26	33.59	0.98	33.59	0.98
0:27:30	222.53	190.26	33.55	0.98	33.55	0.98
0:28:00	222.51	190.26	33.53	0.98	33.53	0.98
0:28:30	222.53	190.26	33.55	0.98	33.55	0.98
0:29:00	222.48	190.26	33.51	0.98	33.51	0.98
0:29:30	222.47	190.26	33.50	0.98	33.50	0.98
0:30:00	222.47	190.26	33.50	0.98	33.50	0.98
0:30:30	222.43	190.26	33.45	0.97	33.45	0.97
0:31:00	222.45	190.26	33.47	0.97	33.47	0.97
0:31:30	222.43	190.26	33.45	0.97	33.45	0.97
0:32:00	222.45	190.26	33.47	0.97	33.47	0.97
0:32:30	222.43	190.26	33.45	0.97	33.45	0.97
0:33:00	222.42	190.26	33.44	0.97	33.44	0.97
0:33:30	222.42	190.26	33.44	0.97	33.44	0.97
0:34:00	222.37	190.26	33.39	0.97	33.39	0.97
0:34:30	222.36	190.26	33.38	0.97	33.38	0.97
0:35:00	222.36	190.26	33.38	0.97	33.38	0.97
0:35:30	222.36	190.26	33.38	0.97	33.38	0.97
0:36:00	222.36	190.26	33.38	0.97	33.38	0.97
0:36:30	222.32	190.26	33.34	0.97	33.34	0.97
0:37:00	222.34	190.26	33.36	0.97	33.36	0.97
0:37:30	222.32	190.26	33.34	0.97	33.34	0.97
0:38:00	222.32	190.26	33.34	0.97	33.34	0.97
0:38:30	222.31	190.26	33.33	0.97	33.33	0.97
0:39:00	222.31	190.26	33.33	0.97	33.33	0.97
0:39:30	222.31	190.26	33.33	0.97	33.33	0.97
0:40:00	222.28	190.26	33.30	0.97	33.30	0.97
0:40:30	222.28	190.26	33.30	0.97	33.30	0.97
0:41:00	222.28	190.26	33.30	0.97	33.30	0.97
0:41:30	222.28	190.26	33.30	0.97	33.30	0.97
0:42:00	222.23	190.26	33.24	0.97	33.24	0.97
0:42:30	222.27	190.26	33.29	0.97	33.29	0.97
0:43:00	222.25	190.26	33.27	0.97	33.27	0.97
0:43:30	222.23	190.26	33.24	0.97	33.24	0.97
0:44:00	222.21	190.26	33.22	0.97	33.22	0.97
0:44:30	222.21	190.26	33.22	0.97	33.22	0.97
0:45:00	222.20	190.26	33.21	0.97	33.21	0.97
0:45:30	222.20	190.26	33.21	0.97	33.21	0.97
0:46:00	222.17	190.26	33.19	0.97	33.19	0.97
0:46:30	222.17	190.26	33.19	0.97	33.19	0.97

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:47:00	222.17	190.26	33.19	0.97	33.19	0.97
0:47:30	222.15	190.26	33.16	0.97	33.16	0.97
0:48:00	222.14	190.26	33.15	0.97	33.15	0.97
0:48:30	222.15	190.26	33.16	0.97	33.16	0.97
0:49:00	222.15	190.26	33.16	0.97	33.16	0.97
0:49:30	222.14	190.26	33.15	0.97	33.15	0.97
0:50:00	222.14	190.26	33.15	0.97	33.15	0.97
0:50:30	222.10	190.26	33.11	0.96	33.11	0.96
0:51:00	222.09	190.26	33.10	0.96	33.10	0.96
0:51:30	222.06	190.26	33.07	0.96	33.07	0.96
0:52:00	222.03	190.26	33.04	0.96	33.04	0.96
0:52:30	222.04	190.26	33.05	0.96	33.05	0.96
0:53:00	222.03	190.26	33.04	0.96	33.04	0.96
0:53:30	221.99	190.26	32.99	0.96	32.99	0.96
0:54:00	221.99	190.26	32.99	0.96	32.99	0.96
0:54:30	221.97	190.26	32.98	0.96	32.98	0.96
0:55:00	221.97	190.26	32.98	0.96	32.98	0.96
0:55:30	221.93	190.26	32.93	0.96	32.93	0.96
0:56:00	221.90	190.26	32.90	0.96	32.90	0.96
0:56:30	221.92	190.26	32.92	0.96	32.92	0.96
0:57:00	221.88	190.26	32.88	0.96	32.88	0.96
0:57:30	221.88	190.26	32.88	0.96	32.88	0.96
0:58:00	221.86	190.26	32.87	0.96	32.87	0.96
0:58:30	221.84	190.26	32.84	0.96	32.84	0.96
0:59:00	221.84	190.26	32.84	0.96	32.84	0.96
0:59:30	221.82	190.26	32.82	0.96	32.82	0.96
1:00:00	221.79	190.61	32.42	0.94	32.78	0.95
1:00:30	221.81	190.61	32.44	0.94	32.81	0.96
1:01:00	221.81	190.61	32.44	0.94	32.81	0.96
1:01:30	221.77	190.61	32.39	0.94	32.76	0.95
1:02:00	221.79	190.61	32.42	0.94	32.78	0.95
1:02:30	221.73	190.61	32.36	0.94	32.73	0.95
1:03:00	221.75	190.61	32.38	0.94	32.75	0.95
1:03:30	221.75	190.61	32.38	0.94	32.75	0.95
1:04:00	221.72	190.61	32.35	0.94	32.72	0.95
1:04:30	221.73	190.61	32.36	0.94	32.73	0.95
1:05:00	221.72	190.61	32.35	0.94	32.72	0.95
1:05:30	221.73	190.61	32.36	0.94	32.73	0.95
1:06:00	221.73	190.61	32.36	0.94	32.73	0.95
1:06:30	221.72	190.61	32.35	0.94	32.72	0.95
1:07:00	221.73	190.61	32.36	0.94	32.73	0.95
1:07:30	221.73	190.61	32.36	0.94	32.73	0.95
1:08:00	221.72	190.61	32.35	0.94	32.72	0.95
1:08:30	221.73	190.61	32.36	0.94	32.73	0.95
1:09:00	221.73	190.61	32.36	0.94	32.73	0.95
1:09:30	221.72	190.61	32.35	0.94	32.72	0.95
1:10:00	221.72	190.61	32.35	0.94	32.72	0.95
1:10:30	221.72	190.61	32.35	0.94	32.72	0.95

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:11:00	221.72	190.61	32.35	0.94	32.72	0.95
1:11:30	221.72	190.61	32.35	0.94	32.72	0.95
1:12:00	221.70	190.61	32.32	0.94	32.69	0.95
1:12:30	221.70	190.61	32.32	0.94	32.69	0.95
1:13:00	221.68	190.61	32.30	0.94	32.67	0.95
1:13:30	221.65	190.61	32.28	0.94	32.65	0.95
1:14:00	221.65	190.61	32.28	0.94	32.65	0.95
1:14:30	221.68	190.61	32.30	0.94	32.67	0.95
1:15:00	221.65	190.61	32.28	0.94	32.65	0.95
1:15:30	221.65	190.61	32.28	0.94	32.65	0.95
1:16:00	221.64	190.61	32.27	0.94	32.64	0.95
1:16:30	221.64	190.61	32.27	0.94	32.64	0.95
1:17:00	221.62	190.61	32.24	0.94	32.61	0.95
1:17:30	221.61	190.61	32.23	0.94	32.60	0.95
1:18:00	221.57	190.61	32.19	0.94	32.55	0.95
1:18:30	221.61	190.61	32.23	0.94	32.60	0.95
1:19:00	221.57	190.61	32.19	0.94	32.55	0.95
1:19:30	221.57	190.61	32.19	0.94	32.55	0.95
1:20:00	221.57	190.61	32.19	0.94	32.55	0.95
1:20:30	221.55	190.61	32.18	0.94	32.54	0.95
1:21:00	221.53	190.61	32.15	0.94	32.52	0.95
1:21:30	221.55	190.61	32.18	0.94	32.54	0.95
1:22:00	221.53	190.61	32.15	0.94	32.52	0.95
1:22:30	221.50	190.61	32.12	0.94	32.49	0.95
1:23:00	221.51	190.61	32.13	0.94	32.50	0.95
1:23:30	221.50	190.61	32.12	0.94	32.49	0.95
1:24:00	221.51	190.61	32.13	0.94	32.50	0.95
1:24:30	221.50	190.61	32.12	0.94	32.49	0.95
1:25:00	221.50	190.61	32.12	0.94	32.49	0.95
1:25:30	221.48	190.61	32.10	0.93	32.46	0.95
1:26:00	221.48	190.61	32.10	0.93	32.46	0.95
1:26:30	221.48	190.61	32.10	0.93	32.46	0.95
1:27:00	221.44	190.61	32.06	0.93	32.43	0.94
1:27:30	221.44	190.61	32.06	0.93	32.43	0.94
1:28:00	221.46	190.61	32.07	0.93	32.44	0.94
1:28:30	221.42	190.61	32.04	0.93	32.41	0.94
1:29:00	221.44	190.61	32.06	0.93	32.43	0.94
1:29:30	221.44	190.61	32.06	0.93	32.43	0.94
1:30:00	221.42	190.61	32.04	0.93	32.41	0.94
1:30:30	221.40	190.61	32.01	0.93	32.38	0.94
1:31:00	221.40	190.61	32.01	0.93	32.38	0.94
1:31:30	221.39	190.61	32.00	0.93	32.37	0.94
1:32:00	221.39	190.61	32.00	0.93	32.37	0.94
1:32:30	221.39	190.61	32.00	0.93	32.37	0.94
1:33:00	221.39	190.61	32.00	0.93	32.37	0.94
1:33:30	221.35	190.61	31.96	0.93	32.33	0.94
1:34:00	221.39	190.61	32.00	0.93	32.37	0.94
1:34:30	221.37	190.61	31.98	0.93	32.35	0.94

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:35:00	221.39	190.61	32.00	0.93	32.37	0.94
1:35:30	221.37	190.61	31.98	0.93	32.35	0.94
1:36:00	221.37	190.61	31.98	0.93	32.35	0.94
1:36:30	221.37	190.61	31.98	0.93	32.35	0.94
1:37:00	221.33	190.61	31.94	0.93	32.31	0.94
1:37:30	221.33	190.61	31.94	0.93	32.31	0.94
1:38:00	221.33	190.61	31.94	0.93	32.31	0.94
1:38:30	221.31	190.61	31.92	0.93	32.29	0.94
1:39:00	221.31	190.61	31.92	0.93	32.29	0.94
1:39:30	221.31	190.61	31.92	0.93	32.29	0.94
1:40:00	221.29	190.61	31.90	0.93	32.27	0.94
1:40:30	221.31	190.61	31.92	0.93	32.29	0.94
1:41:00	221.29	190.61	31.90	0.93	32.27	0.94
1:41:30	221.29	190.61	31.90	0.93	32.27	0.94
1:42:00	221.29	190.61	31.90	0.93	32.27	0.94
1:42:30	221.31	190.61	31.92	0.93	32.29	0.94
1:43:30	221.28	190.61	31.89	0.93	32.26	0.94
1:44:30	221.26	190.61	31.87	0.93	32.23	0.94
1:45:30	221.23	190.61	31.84	0.93	32.21	0.94
1:46:30	221.23	190.61	31.84	0.93	32.21	0.94
1:47:30	221.22	190.61	31.83	0.93	32.20	0.94
1:48:30	221.22	190.61	31.83	0.93	32.20	0.94
1:49:30	221.20	190.61	31.81	0.93	32.18	0.94
1:50:30	221.22	190.61	31.83	0.93	32.20	0.94
1:51:30	221.20	190.61	31.81	0.93	32.18	0.94
1:52:30	221.22	190.61	31.83	0.93	32.20	0.94
1:53:30	221.20	190.61	31.81	0.93	32.18	0.94
1:54:30	221.20	190.61	31.81	0.93	32.18	0.94
1:55:30	221.17	190.61	31.77	0.92	32.14	0.94
1:56:30	221.20	190.61	31.81	0.93	32.18	0.94
1:57:30	221.18	190.61	31.78	0.93	32.15	0.94
1:58:30	221.12	190.61	31.73	0.92	32.10	0.93
1:59:30	221.11	190.61	31.72	0.92	32.08	0.93
2:00:30	220.13	189.89	31.45	0.92	31.06	0.90
2:01:30	220.10	189.89	31.41	0.91	31.03	0.90
2:02:30	220.08	189.89	31.39	0.91	31.01	0.90
2:03:30	220.08	189.89	31.39	0.91	31.01	0.90
2:04:30	220.08	189.89	31.39	0.91	31.01	0.90
2:05:30	220.05	189.89	31.37	0.91	30.98	0.90
2:06:30	220.08	189.89	31.39	0.91	31.01	0.90
2:07:30	220.10	189.89	31.41	0.91	31.03	0.90
2:08:30	220.08	189.89	31.39	0.91	31.01	0.90
2:09:30	220.08	189.89	31.39	0.91	31.01	0.90
2:10:30	220.08	189.89	31.39	0.91	31.01	0.90
2:11:30	220.05	189.89	31.37	0.91	30.98	0.90
2:12:30	220.05	189.89	31.37	0.91	30.98	0.90
2:13:30	220.05	189.89	31.37	0.91	30.98	0.90
2:14:30	220.05	189.89	31.37	0.91	30.98	0.90

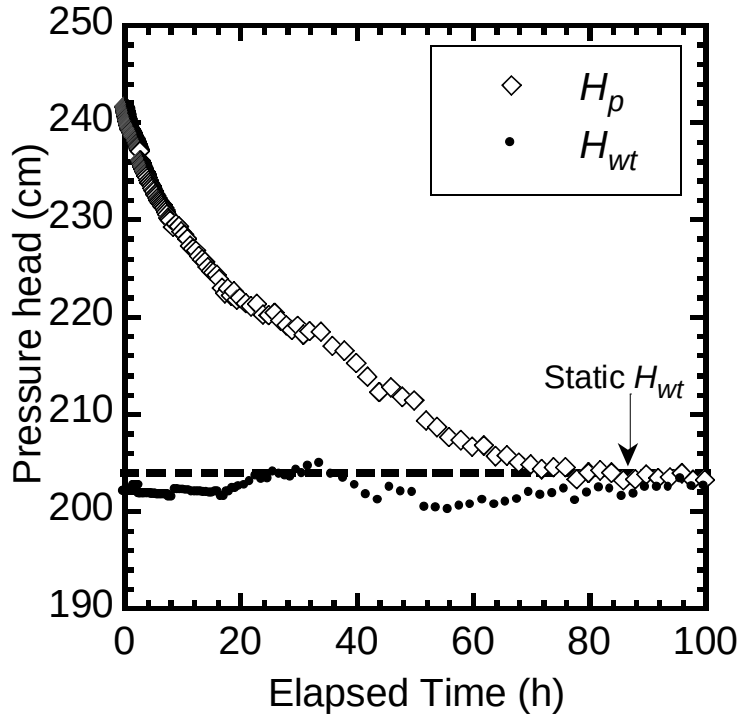
0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:15:30	220.08	189.89	31.39	0.91	31.01	0.90
2:16:30	220.05	189.89	31.37	0.91	30.98	0.90
2:17:30	220.10	189.89	31.41	0.91	31.03	0.90
2:18:30	220.08	189.89	31.39	0.91	31.01	0.90
2:19:30	220.08	189.89	31.39	0.91	31.01	0.90
2:20:30	220.11	189.89	31.42	0.91	31.04	0.90
2:21:30	220.08	189.89	31.39	0.91	31.01	0.90
2:22:30	220.08	189.89	31.39	0.91	31.01	0.90
2:23:30	220.05	189.89	31.37	0.91	30.98	0.90
2:24:30	220.05	189.89	31.37	0.91	30.98	0.90
2:25:30	220.03	189.89	31.34	0.91	30.96	0.90
2:26:30	220.02	189.89	31.33	0.91	30.95	0.90
2:27:30	220.05	189.89	31.37	0.91	30.98	0.90
2:28:30	220.03	189.89	31.34	0.91	30.96	0.90
2:29:30	220.02	189.89	31.33	0.91	30.95	0.90
2:30:30	220.02	189.89	31.33	0.91	30.95	0.90
2:31:30	220.02	189.89	31.33	0.91	30.95	0.90
2:32:30	220.00	189.89	31.31	0.91	30.93	0.90
2:33:30	219.98	189.89	31.29	0.91	30.90	0.90
2:34:30	219.98	189.89	31.29	0.91	30.90	0.90
2:35:30	219.94	189.89	31.25	0.91	30.87	0.90
2:36:30	219.97	189.89	31.28	0.91	30.89	0.90
2:37:30	219.94	189.89	31.25	0.91	30.87	0.90
2:38:30	219.92	189.89	31.23	0.91	30.85	0.90
2:39:30	219.89	189.89	31.19	0.91	30.81	0.90
2:40:30	219.88	189.89	31.18	0.91	30.80	0.90
2:41:30	219.91	189.89	31.22	0.91	30.83	0.90
2:42:30	219.89	189.89	31.19	0.91	30.81	0.90
2:43:30	219.83	189.89	31.14	0.91	30.75	0.90
2:44:30	219.80	189.89	31.10	0.91	30.72	0.89
2:45:30	219.80	189.89	31.10	0.91	30.72	0.89
2:46:30	219.77	189.89	31.07	0.90	30.69	0.89
2:47:30	219.77	189.89	31.07	0.90	30.69	0.89
2:48:30	219.72	189.89	31.02	0.90	30.64	0.89
2:49:30	219.75	189.89	31.05	0.90	30.66	0.89
2:50:30	219.75	189.89	31.05	0.90	30.66	0.89
2:51:30	219.71	189.89	31.01	0.90	30.63	0.89
2:52:30	219.69	189.89	30.99	0.90	30.60	0.89
2:53:30	219.66	189.89	30.95	0.90	30.57	0.89
2:54:30	219.64	189.89	30.93	0.90	30.55	0.89
2:55:30	219.61	189.89	30.91	0.90	30.52	0.89
2:56:30	219.61	189.89	30.91	0.90	30.52	0.89
2:57:30	219.61	189.89	30.91	0.90	30.52	0.89
2:58:30	219.61	189.89	30.91	0.90	30.52	0.89
2:59:30	219.61	189.89	30.91	0.90	30.52	0.89
3:00:30	219.58	190.10	30.65	0.89	30.49	0.89
3:01:30	219.60	190.10	30.67	0.89	30.51	0.89
3:02:30	219.56	190.10	30.63	0.89	30.47	0.89

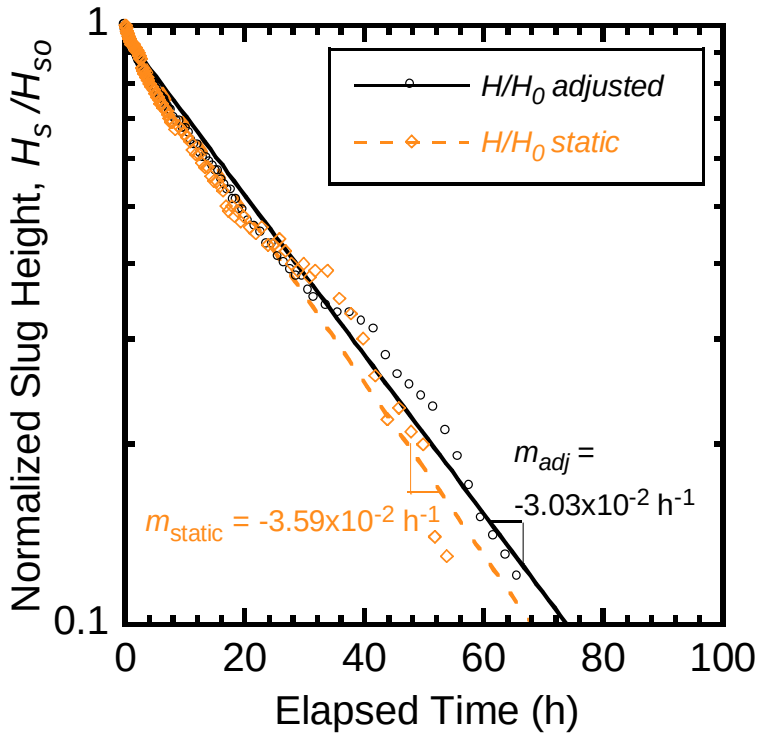
0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:03:30	219.55	190.10	30.62	0.89	30.45	0.89
3:04:30	219.58	190.10	30.65	0.89	30.49	0.89
3:05:30	219.52	190.10	30.59	0.89	30.43	0.89
3:06:30	219.52	190.10	30.59	0.89	30.43	0.89
3:07:30	219.52	190.10	30.59	0.89	30.43	0.89
3:08:30	219.50	190.10	30.57	0.89	30.41	0.89
3:09:30	219.49	190.10	30.56	0.89	30.40	0.88
3:10:30	219.49	190.10	30.56	0.89	30.40	0.88
3:11:30	219.47	190.10	30.54	0.89	30.37	0.88
3:12:30	219.41	190.10	30.48	0.89	30.32	0.88
3:13:30	219.39	190.10	30.46	0.89	30.29	0.88
3:14:30	219.36	190.10	30.42	0.89	30.26	0.88
3:15:30	219.36	190.10	30.42	0.89	30.26	0.88
3:16:30	219.33	190.10	30.39	0.88	30.22	0.88
3:17:30	219.28	190.10	30.34	0.88	30.18	0.88
3:18:30	219.30	190.10	30.36	0.88	30.20	0.88
3:19:30	219.28	190.10	30.34	0.88	30.18	0.88
3:20:30	219.27	190.10	30.33	0.88	30.17	0.88
3:21:30	219.28	190.10	30.34	0.88	30.18	0.88
3:22:30	219.25	190.10	30.31	0.88	30.14	0.88
3:23:30	219.25	190.10	30.31	0.88	30.14	0.88
3:24:30	219.23	190.10	30.28	0.88	30.12	0.88
3:25:30	219.23	190.10	30.28	0.88	30.12	0.88
3:26:30	219.23	190.10	30.28	0.88	30.12	0.88
3:27:30	219.22	190.10	30.27	0.88	30.11	0.88
3:28:30	219.22	190.10	30.27	0.88	30.11	0.88
3:29:30	219.23	190.10	30.28	0.88	30.12	0.88
3:30:30	219.22	190.10	30.27	0.88	30.11	0.88
3:31:30	219.23	190.10	30.28	0.88	30.12	0.88
3:32:30	219.23	190.10	30.28	0.88	30.12	0.88
3:33:30	219.23	190.10	30.28	0.88	30.12	0.88
3:34:30	219.22	190.10	30.27	0.88	30.11	0.88
3:35:30	219.17	190.10	30.23	0.88	30.06	0.88
3:36:30	219.17	190.10	30.23	0.88	30.06	0.88
3:37:30	219.19	190.10	30.25	0.88	30.09	0.88
3:38:30	219.17	190.10	30.23	0.88	30.06	0.88
3:39:30	219.17	190.10	30.23	0.88	30.06	0.88
3:40:30	219.14	190.10	30.19	0.88	30.03	0.87
3:41:30	219.14	190.10	30.19	0.88	30.03	0.87
3:42:30	219.10	190.10	30.16	0.88	29.99	0.87
3:52:30	219.00	190.10	30.05	0.87	29.89	0.87
4:02:30	217.85	189.44	29.54	0.86	28.69	0.84
4:12:30	217.76	189.44	29.45	0.86	28.60	0.83
4:22:30	217.68	189.44	29.37	0.85	28.52	0.83
4:32:30	217.57	189.44	29.25	0.85	28.40	0.83
4:42:30	217.38	189.44	29.06	0.85	28.20	0.82
4:52:30	217.44	189.44	29.11	0.85	28.26	0.82
5:02:30	217.33	189.79	28.64	0.83	28.15	0.82

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
5:12:30	217.33	189.79	28.64	0.83	28.15	0.82
5:22:30	217.13	189.79	28.43	0.83	27.94	0.81
5:32:30	217.02	189.79	28.31	0.82	27.83	0.81
5:42:30	216.96	189.79	28.26	0.82	27.77	0.81
5:52:30	216.85	189.79	28.14	0.82	27.65	0.81
6:02:30	215.85	189.23	27.67	0.81	26.61	0.77
6:12:30	215.82	189.23	27.64	0.80	26.58	0.77
6:22:30	215.78	189.23	27.61	0.80	26.54	0.77
6:32:30	215.78	189.23	27.61	0.80	26.54	0.77
6:42:30	215.65	189.23	27.47	0.80	26.40	0.77
6:52:30	215.60	189.23	27.41	0.80	26.35	0.77
7:02:30	215.56	189.56	27.03	0.79	26.31	0.77
7:12:30	215.64	189.56	27.11	0.79	26.39	0.77
7:22:30	215.45	189.56	29.72	0.78	26.20	0.76
7:32:30	215.37	189.56	26.84	0.78	26.12	0.76
7:42:30	215.34	189.56	26.80	0.78	26.08	0.76
8:12:30	214.14	188.89	26.25	0.76	24.83	0.72
8:42:30	214.00	188.89	26.10	0.76	24.68	0.72
9:12:30	213.66	189.00	25.65	0.75	24.34	0.71
9:42:30	213.44	189.00	25.42	0.74	24.11	0.70
10:12:30	213.06	189.12	24.89	0.72	23.71	0.69
10:42:30	212.86	189.12	24.68	0.72	23.50	0.68
11:12:30	212.55	189.41	24.06	0.70	23.18	0.67
11:42:30	212.22	189.41	23.71	0.69	22.83	0.66
12:12:30	211.19	188.91	23.17	0.67	21.77	0.63
12:42:30	211.16	188.91	23.13	0.67	21.73	0.63
13:12:30	211.12	189.35	22.64	0.66	21.70	0.63
13:42:30	210.97	189.35	22.48	0.65	21.54	0.63
14:12:30	209.84	189.05	21.62	0.63	20.37	0.59
14:42:30	210.07	189.05	21.85	0.64	20.60	0.60
15:12:30	209.16	188.47	21.52	0.63	19.66	0.57
15:42:30	209.09	188.47	21.44	0.62	19.58	0.57
16:12:30	208.97	188.45	21.34	0.62	19.46	0.57
16:42:30	208.75	188.45	21.11	0.61	19.23	0.56
17:12:30	208.39	188.25	20.94	0.61	18.85	0.55
17:42:30	207.76	188.25	20.29	0.59	18.20	0.53
18:12:30	208.43	188.92	20.29	0.59	18.90	0.55
18:42:30	207.88	188.92	19.71	0.57	18.32	0.53
19:12:30	207.49	188.39	19.86	0.58	17.92	0.52
19:42:30	206.83	188.39	19.17	0.56	17.23	0.50
20:42:30	206.47	188.81	18.36	0.53	16.86	0.49
21:42:30	206.39	189.52	17.54	0.51	16.77	0.49
22:42:30	205.95	189.46	17.14	0.50	16.31	0.47
23:42:30	205.54	189.51	16.67	0.49	15.89	0.46
24:42:30	204.22	188.57	16.28	0.47	14.52	0.42
25:42:30	203.92	188.83	15.68	0.46	14.20	0.41
26:42:30	203.81	189.03	15.36	0.45	14.09	0.41
27:42:30	202.69	188.22	15.05	0.44	12.93	0.38

0+33.0	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
28:42:30	202.33	188.40	14.48	0.42	12.55	0.37
29:42:30	202.24	188.54	14.25	0.41	12.46	0.36
30:42:30	201.88	188.37	14.05	0.41	12.09	0.35
31:42:30	201.00	188.23	13.28	0.39	11.17	0.33
33:42:30	200.45	188.24	12.69	0.37	10.60	0.31
35:42:30	200.08	188.82	11.71	0.34	10.22	0.30
37:42:30	199.02	188.39	11.05	0.32	9.12	0.27
39:42:30	197.86	187.60	10.66	0.31	7.90	0.23
41:42:30	197.85	188.09	10.15	0.30	7.90	0.23
43:42:30	197.95	189.03	9.27	0.27	8.00	0.23
45:42:30	196.90	188.86	8.36	0.24	6.91	0.20
47:42:30	196.71	189.34	7.67	0.22	6.71	0.20
49:42:30	196.41	189.39	7.30	0.21	6.40	0.19
51:42:30	195.74	189.04	6.97	0.20	5.71	0.17
53:42:30	195.36	188.74	6.88	0.20	5.30	0.15
55:42:30	194.36	188.14	6.47	0.19	4.27	0.12
57:42:30	194.78	188.88	6.14	0.18	4.70	0.14
59:42:30	194.07	188.46	5.84	0.17	3.97	0.12
61:42:30	193.80	188.85	5.15	0.15	3.69	0.11
63:42:30	193.23	188.55	4.86	0.14	3.09	0.09
65:42:30	192.53	188.33	4.36	0.13	2.36	0.07
67:42:30	192.55	188.67	4.04	0.12	2.39	0.07
69:42:30	192.66	189.68	3.09	0.09	2.50	0.07
71:42:30	192.15	189.83	2.41	0.07	1.97	0.06
73:42:30	191.98	190.31	1.74	0.05	1.79	0.05
75:42:30	192.54	191.03	1.57	0.05	2.37	0.07
77:42:30	192.57	191.11	1.52	0.04	2.40	0.07
79:42:30	192.14	190.87	1.32	0.04	1.96	0.06
81:42:30	193.15	192.38	0.80	0.02	3.01	0.09
83:42:30	192.74	192.69	0.05	0.00	2.58	0.08
85:42:30	192.94	191.95	1.03	0.03	2.79	0.08
87:42:30	193.63	191.42	2.29	0.07	3.51	0.10
89:42:30	192.84	191.11	1.80	0.05	2.69	0.08
91:42:30	193.33	191.57	1.83	0.05	3.19	0.09
93:42:30	192.44	191.07	1.42	0.04	2.27	0.07

Test Location (m)	**0+33.0**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	2
Well #	3	**Test Type**	Rate of Fall
Start Date of Test	11/8/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	204.0
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	41.3/39.2
k_{adj} (cm/s)	2.48E-07	**k_{static} (cm/s)**	2.95E-07





0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	241.71	202.02	41.26	1.00	39.22	1.00
0:00:10	241.69	202.02	41.24	1.00	39.20	1.00
0:00:20	241.69	202.02	41.24	1.00	39.20	1.00
0:00:30	241.69	202.02	41.24	1.00	39.20	1.00
0:00:40	241.66	202.02	41.21	1.00	39.17	1.00
0:00:50	241.66	202.02	41.21	1.00	39.17	1.00
0:01:00	241.68	202.02	41.23	1.00	39.19	1.00
0:01:10	241.63	202.02	41.18	1.00	39.15	1.00
0:01:20	241.62	202.02	41.17	1.00	39.13	1.00
0:01:30	241.60	202.02	41.15	1.00	39.11	1.00
0:01:40	241.60	202.02	41.15	1.00	39.11	1.00
0:01:50	241.60	202.02	41.15	1.00	39.11	1.00
0:02:00	241.59	202.02	41.14	1.00	39.10	1.00
0:02:10	241.57	202.02	41.12	1.00	39.08	1.00
0:02:20	241.55	202.02	41.09	1.00	39.05	1.00
0:02:30	241.55	202.02	41.09	1.00	39.05	1.00
0:02:40	241.55	202.02	41.09	1.00	39.05	1.00
0:02:50	241.54	202.02	41.08	1.00	39.04	1.00
0:03:00	241.55	202.02	41.09	1.00	39.05	1.00
0:03:10	241.51	202.02	41.06	1.00	39.02	0.99
0:03:20	241.49	202.02	41.04	0.99	39.00	0.99
0:03:30	241.49	202.02	41.04	0.99	39.00	0.99
0:03:40	241.49	202.02	41.04	0.99	39.00	0.99
0:03:50	241.46	202.02	41.00	0.99	38.96	0.99
0:04:00	241.48	202.02	41.03	0.99	38.99	0.99
0:04:10	241.46	202.02	41.00	0.99	38.96	0.99
0:04:20	241.44	202.02	40.98	0.99	38.94	0.99
0:04:30	241.44	202.02	40.98	0.99	38.94	0.99
0:04:40	241.43	202.02	40.97	0.99	38.93	0.99
0:04:50	241.43	202.02	40.97	0.99	38.93	0.99
0:05:00	241.43	202.02	40.97	0.99	38.93	0.99
0:05:10	241.38	202.02	40.92	0.99	38.88	0.99
0:05:20	241.38	202.02	40.92	0.99	38.88	0.99
0:05:30	241.37	202.02	40.91	0.99	38.87	0.99
0:05:40	241.37	202.02	40.91	0.99	38.87	0.99
0:05:50	241.37	202.02	40.91	0.99	38.87	0.99
0:06:00	241.35	202.02	40.89	0.99	38.85	0.99
0:06:10	241.33	202.02	40.86	0.99	38.83	0.99
0:06:20	241.33	202.02	40.86	0.99	38.83	0.99
0:06:30	241.32	202.02	40.85	0.99	38.81	0.99
0:06:40	241.33	202.02	40.86	0.99	38.83	0.99
0:06:50	241.29	202.02	40.83	0.99	38.79	0.99
0:07:00	241.32	202.02	40.85	0.99	38.81	0.99
0:07:10	241.29	202.02	40.83	0.99	38.79	0.99
0:07:20	241.29	202.02	40.83	0.99	38.79	0.99
0:07:30	241.26	202.02	40.80	0.99	38.76	0.99
0:07:40	241.24	202.02	40.77	0.99	38.73	0.99
0:07:50	241.24	202.02	40.77	0.99	38.73	0.99

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:00	241.23	202.02	40.76	0.99	38.72	0.99
0:08:10	241.24	202.02	40.77	0.99	38.73	0.99
0:08:20	241.23	202.02	40.76	0.99	38.72	0.99
0:08:30	241.18	202.02	40.72	0.99	38.68	0.99
0:08:40	241.17	202.02	40.71	0.99	38.67	0.99
0:08:50	241.21	202.02	40.74	0.99	38.70	0.99
0:09:00	241.18	202.02	40.72	0.99	38.68	0.99
0:09:10	241.18	202.02	40.72	0.99	38.68	0.99
0:09:20	241.18	202.02	40.72	0.99	38.68	0.99
0:09:30	241.15	202.02	40.68	0.99	38.64	0.99
0:09:40	241.17	202.02	40.71	0.99	38.67	0.99
0:09:50	241.13	202.02	40.66	0.99	38.62	0.98
0:10:00	241.13	202.02	40.66	0.99	38.62	0.98
0:10:10	241.13	202.02	40.66	0.99	38.62	0.98
0:10:20	241.12	202.02	40.65	0.99	38.61	0.98
0:10:30	241.12	202.02	40.65	0.99	38.61	0.98
0:10:40	241.10	202.02	40.62	0.98	38.59	0.98
0:10:50	241.10	202.02	40.62	0.98	38.59	0.98
0:11:00	241.10	202.02	40.62	0.98	38.59	0.98
0:11:10	241.12	202.02	40.65	0.99	38.61	0.98
0:11:20	241.07	202.02	40.60	0.98	38.56	0.98
0:11:30	241.06	202.02	40.59	0.98	38.55	0.98
0:11:40	241.06	202.02	40.59	0.98	38.55	0.98
0:11:50	241.04	202.02	40.57	0.98	38.53	0.98
0:12:00	241.04	202.02	40.57	0.98	38.53	0.98
0:12:10	241.04	202.02	40.57	0.98	38.53	0.98
0:12:20	241.04	202.02	40.57	0.98	38.53	0.98
0:12:30	241.02	202.02	40.55	0.98	38.51	0.98
0:12:40	241.01	202.02	40.53	0.98	38.49	0.98
0:12:50	241.01	202.02	40.53	0.98	38.49	0.98
0:13:00	241.01	202.02	40.53	0.98	38.49	0.98
0:13:10	240.99	202.02	40.51	0.98	38.47	0.98
0:13:20	240.96	202.02	40.49	0.98	38.45	0.98
0:13:30	240.96	202.02	40.49	0.98	38.45	0.98
0:13:40	240.99	202.02	40.51	0.98	38.47	0.98
0:13:50	240.96	202.02	40.49	0.98	38.45	0.98
0:14:00	240.95	202.02	40.48	0.98	38.44	0.98
0:14:10	240.95	202.02	40.48	0.98	38.44	0.98
0:14:20	240.93	202.02	40.45	0.98	38.42	0.98
0:14:30	240.93	202.02	40.45	0.98	38.42	0.98
0:14:40	240.91	202.02	40.43	0.98	38.39	0.98
0:14:50	240.91	202.02	40.43	0.98	38.39	0.98
0:15:00	240.91	202.02	40.43	0.98	38.39	0.98
0:15:10	240.91	202.02	40.43	0.98	38.39	0.98
0:15:20	240.90	202.02	40.42	0.98	38.38	0.98
0:15:30	240.85	202.02	40.37	0.98	38.33	0.98
0:15:40	240.88	202.02	40.40	0.98	38.36	0.98
0:15:50	240.85	202.02	40.37	0.98	38.33	0.98

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:00	240.88	202.02	40.40	0.98	38.36	0.98
0:16:10	240.84	202.02	40.36	0.98	38.32	0.98
0:16:20	240.85	202.02	40.37	0.98	38.33	0.98
0:16:30	240.82	202.02	40.34	0.98	38.30	0.98
0:16:40	240.82	202.02	40.34	0.98	38.30	0.98
0:16:50	240.84	202.02	40.36	0.98	38.32	0.98
0:17:00	240.82	202.02	40.34	0.98	38.30	0.98
0:17:30	240.80	202.02	40.32	0.98	38.28	0.98
0:18:00	240.76	202.02	40.27	0.98	38.23	0.97
0:18:30	240.73	202.02	40.25	0.98	38.21	0.97
0:19:00	240.71	202.02	40.23	0.97	38.19	0.97
0:19:30	240.70	202.02	40.21	0.97	38.18	0.97
0:20:00	240.66	202.02	40.17	0.97	38.13	0.97
0:20:30	240.65	202.02	40.16	0.97	38.12	0.97
0:21:00	240.60	202.02	40.11	0.97	38.07	0.97
0:21:30	240.60	202.02	40.11	0.97	38.07	0.97
0:22:00	240.57	202.02	40.08	0.97	38.04	0.97
0:22:30	240.55	202.02	40.05	0.97	38.01	0.97
0:23:00	240.54	202.02	40.04	0.97	38.00	0.97
0:23:30	240.54	202.02	40.04	0.97	38.00	0.97
0:24:00	240.48	202.02	39.99	0.97	37.95	0.97
0:24:30	240.48	202.02	39.99	0.97	37.95	0.97
0:25:00	240.44	202.02	39.94	0.97	37.90	0.97
0:25:30	240.44	202.02	39.94	0.97	37.90	0.97
0:26:00	240.40	202.02	39.90	0.97	37.87	0.97
0:26:30	240.40	202.02	39.90	0.97	37.87	0.97
0:27:00	240.35	202.02	39.85	0.97	37.81	0.96
0:27:30	240.33	202.02	39.82	0.97	37.78	0.96
0:28:00	240.33	202.02	39.82	0.97	37.78	0.96
0:28:30	240.29	202.02	39.79	0.96	37.75	0.96
0:29:00	240.24	202.02	39.73	0.96	37.69	0.96
0:29:30	240.24	202.02	39.73	0.96	37.69	0.96
0:30:00	240.22	202.02	39.71	0.96	37.67	0.96
0:30:30	240.22	202.02	39.71	0.96	37.67	0.96
0:31:00	240.18	202.02	39.68	0.96	37.64	0.96
0:31:30	240.16	202.02	39.65	0.96	37.61	0.96
0:32:00	240.13	202.02	39.62	0.96	37.58	0.96
0:32:30	240.13	202.02	39.62	0.96	37.58	0.96
0:33:00	240.09	202.02	39.58	0.96	37.54	0.96
0:33:30	240.09	202.02	39.58	0.96	37.54	0.96
0:34:00	240.07	202.02	39.56	0.96	37.52	0.96
0:34:30	240.04	202.02	39.53	0.96	37.49	0.96
0:35:00	240.02	202.02	39.50	0.96	37.46	0.96
0:35:30	240.02	202.02	39.50	0.96	37.46	0.96
0:36:00	240.01	202.02	39.49	0.96	37.45	0.95
0:36:30	240.02	202.02	39.50	0.96	37.46	0.96
0:37:00	240.01	202.02	39.49	0.96	37.45	0.95
0:37:30	239.96	202.02	39.45	0.96	37.41	0.95

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:38:00	239.93	202.02	39.41	0.96	37.37	0.95
0:38:30	239.93	202.02	39.41	0.96	37.37	0.95
0:39:00	239.93	202.02	39.41	0.96	37.37	0.95
0:39:30	239.91	202.02	39.39	0.95	37.35	0.95
0:40:00	239.90	202.21	39.18	0.95	37.34	0.95
0:40:30	239.85	202.21	39.14	0.95	37.29	0.95
0:41:00	239.84	202.21	39.13	0.95	37.28	0.95
0:41:30	239.82	202.21	39.10	0.95	37.26	0.95
0:42:00	239.80	202.21	39.08	0.95	37.23	0.95
0:42:30	239.79	202.21	39.07	0.95	37.22	0.95
0:43:00	239.76	202.21	39.05	0.95	37.20	0.95
0:43:30	239.74	202.21	39.02	0.95	37.18	0.95
0:44:00	239.73	202.21	39.01	0.95	37.17	0.95
0:44:30	239.70	202.21	38.98	0.94	37.13	0.95
0:45:00	239.70	202.21	38.98	0.94	37.13	0.95
0:45:30	239.68	202.21	38.95	0.94	37.11	0.95
0:46:00	239.65	202.21	38.93	0.94	37.09	0.95
0:46:30	239.65	202.21	38.93	0.94	37.09	0.95
0:47:00	239.63	202.21	38.91	0.94	37.06	0.94
0:47:30	239.62	202.21	38.90	0.94	37.05	0.94
0:48:00	239.58	202.21	38.85	0.94	37.00	0.94
0:48:30	239.56	202.21	38.84	0.94	36.99	0.94
0:49:00	239.56	202.21	38.84	0.94	36.99	0.94
0:49:30	239.56	202.21	38.84	0.94	36.99	0.94
0:50:00	239.52	202.21	38.79	0.94	36.95	0.94
0:50:30	239.49	202.21	38.76	0.94	36.91	0.94
0:51:00	239.51	202.21	38.78	0.94	36.94	0.94
0:51:30	239.46	202.21	38.72	0.94	36.88	0.94
0:52:00	239.43	202.21	38.70	0.94	36.86	0.94
0:52:30	239.46	202.21	38.72	0.94	36.88	0.94
0:53:00	239.40	202.21	38.67	0.94	36.82	0.94
0:53:30	239.40	202.21	38.67	0.94	36.82	0.94
0:54:00	239.37	202.21	38.63	0.94	36.79	0.94
0:54:30	239.37	202.21	38.63	0.94	36.79	0.94
0:55:00	239.37	202.21	38.63	0.94	36.79	0.94
0:55:30	239.37	202.21	38.63	0.94	36.79	0.94
0:56:00	239.31	202.21	38.57	0.93	36.73	0.94
0:56:30	239.34	202.21	38.61	0.94	36.76	0.94
0:57:00	239.32	202.21	38.59	0.94	36.74	0.94
0:57:30	239.32	202.21	38.59	0.94	36.74	0.94
0:58:00	239.31	202.21	38.57	0.93	36.73	0.94
0:58:30	239.29	202.21	38.55	0.93	36.71	0.94
0:59:00	239.29	202.21	38.55	0.93	36.71	0.94
0:59:30	239.29	202.21	38.55	0.93	36.71	0.94
1:00:00	239.27	202.21	38.53	0.93	36.68	0.94
1:00:30	239.27	202.21	38.53	0.93	36.68	0.94
1:01:00	239.26	202.21	38.52	0.93	36.67	0.93
1:01:30	239.26	202.21	38.52	0.93	36.67	0.93

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:02:00	239.23	202.21	38.49	0.93	36.65	0.93
1:02:30	239.23	202.21	38.49	0.93	36.65	0.93
1:03:00	239.21	202.21	38.47	0.93	36.63	0.93
1:03:30	239.23	202.21	38.49	0.93	36.65	0.93
1:04:00	239.20	202.21	38.46	0.93	36.61	0.93
1:04:30	239.20	202.21	38.46	0.93	36.61	0.93
1:05:00	239.18	202.21	38.44	0.93	36.59	0.93
1:05:30	239.18	202.21	38.44	0.93	36.59	0.93
1:06:00	239.18	202.21	38.44	0.93	36.59	0.93
1:06:30	239.18	202.21	38.44	0.93	36.59	0.93
1:07:00	239.16	202.21	38.41	0.93	36.57	0.93
1:07:30	239.15	202.21	38.40	0.93	36.56	0.93
1:08:00	239.15	202.21	38.40	0.93	36.56	0.93
1:08:30	239.10	202.21	38.36	0.93	36.51	0.93
1:09:00	239.09	202.21	38.35	0.93	36.50	0.93
1:09:30	239.09	202.21	38.35	0.93	36.50	0.93
1:10:00	239.07	202.21	38.32	0.93	36.48	0.93
1:10:30	239.07	202.21	38.32	0.93	36.48	0.93
1:11:00	239.06	202.21	38.31	0.93	36.47	0.93
1:11:30	239.03	202.21	38.29	0.93	36.44	0.93
1:12:00	239.03	202.21	38.29	0.93	36.44	0.93
1:12:30	238.99	202.21	38.24	0.93	36.40	0.93
1:13:00	238.99	202.21	38.24	0.93	36.40	0.93
1:13:30	238.99	202.21	38.24	0.93	36.40	0.93
1:14:00	238.98	202.21	38.23	0.93	36.38	0.93
1:14:30	238.98	202.21	38.23	0.93	36.38	0.93
1:15:00	238.98	202.21	38.23	0.93	36.38	0.93
1:15:30	238.93	202.21	38.18	0.93	36.34	0.93
1:16:00	238.96	202.21	38.21	0.93	36.36	0.93
1:16:30	238.96	202.21	38.21	0.93	36.36	0.93
1:17:00	238.92	202.21	38.17	0.93	36.33	0.93
1:17:30	238.96	202.21	38.21	0.93	36.36	0.93
1:18:00	238.93	202.21	38.18	0.93	36.34	0.93
1:18:30	238.92	202.21	38.17	0.93	36.33	0.93
1:19:00	238.92	202.21	38.17	0.93	36.33	0.93
1:19:30	238.90	202.21	38.15	0.92	36.30	0.93
1:20:00	238.90	202.21	38.15	0.92	36.30	0.93
1:20:30	238.92	202.21	38.17	0.93	36.33	0.93
1:21:00	238.92	202.21	38.17	0.93	36.33	0.93
1:21:30	238.89	202.21	38.14	0.92	36.29	0.93
1:22:00	238.87	202.21	38.12	0.92	36.27	0.92
1:22:30	238.89	202.21	38.14	0.92	36.29	0.93
1:23:00	238.87	202.21	38.12	0.92	36.27	0.92
1:23:30	238.85	202.21	38.09	0.92	36.25	0.92
1:24:00	238.81	202.21	38.06	0.92	36.21	0.92
1:24:30	238.79	202.21	38.03	0.92	36.19	0.92
1:25:00	238.76	202.21	38.00	0.92	36.16	0.92
1:25:30	238.78	202.21	38.02	0.92	36.18	0.92

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:26:00	238.78	202.21	38.02	0.92	36.18	0.92
1:26:30	238.76	202.21	38.00	0.92	36.16	0.92
1:27:00	238.73	202.21	37.97	0.92	36.12	0.92
1:27:30	238.73	202.21	37.97	0.92	36.12	0.92
1:28:00	238.70	202.21	37.94	0.92	36.10	0.92
1:28:30	238.70	202.21	37.94	0.92	36.10	0.92
1:29:00	238.68	202.21	37.92	0.92	36.08	0.92
1:29:30	238.68	202.21	37.92	0.92	36.08	0.92
1:30:00	238.67	202.21	37.91	0.92	36.06	0.92
1:30:30	238.65	202.21	37.89	0.92	36.04	0.92
1:31:00	238.61	202.21	37.85	0.92	36.01	0.92
1:31:30	238.63	202.21	37.86	0.92	36.02	0.92
1:32:00	238.61	202.21	37.85	0.92	36.01	0.92
1:32:30	238.59	202.21	37.83	0.92	35.98	0.92
1:33:00	238.59	202.21	37.83	0.92	35.98	0.92
1:33:30	238.57	202.21	37.80	0.92	35.96	0.92
1:34:00	238.57	202.21	37.80	0.92	35.96	0.92
1:34:30	238.56	202.21	37.79	0.92	35.95	0.92
1:35:00	238.52	202.21	37.75	0.91	35.90	0.92
1:35:30	238.54	202.21	37.77	0.92	35.93	0.92
1:36:00	238.54	202.21	37.77	0.92	35.93	0.92
1:36:30	238.52	202.21	37.75	0.91	35.90	0.92
1:37:00	238.50	202.21	37.74	0.91	35.89	0.92
1:37:30	238.50	202.21	37.74	0.91	35.89	0.92
1:38:00	238.48	202.21	37.71	0.91	35.87	0.91
1:38:30	238.52	202.21	37.75	0.91	35.90	0.92
1:39:00	238.48	202.21	37.71	0.91	35.87	0.91
1:39:30	238.50	202.21	37.74	0.91	35.89	0.92
1:40:00	238.46	202.64	37.24	0.90	35.85	0.91
1:40:30	238.46	202.64	37.24	0.90	35.85	0.91
1:41:00	238.45	202.64	37.23	0.90	35.83	0.91
1:41:30	238.45	202.64	37.23	0.90	35.83	0.91
1:42:00	238.46	202.64	37.24	0.90	35.85	0.91
1:42:30	238.45	202.64	37.23	0.90	35.83	0.91
1:43:00	238.45	202.64	37.23	0.90	35.83	0.91
1:43:30	238.43	202.64	37.21	0.90	35.81	0.91
1:44:00	238.39	202.64	37.17	0.90	35.78	0.91
1:44:30	238.39	202.64	37.17	0.90	35.78	0.91
1:45:00	238.41	202.64	37.19	0.90	35.79	0.91
1:45:30	238.39	202.64	37.17	0.90	35.78	0.91
1:46:00	238.41	202.64	37.19	0.90	35.79	0.91
1:46:30	238.39	202.64	37.17	0.90	35.78	0.91
1:47:00	238.39	202.64	37.17	0.90	35.78	0.91
1:48:00	238.36	202.64	37.14	0.90	35.74	0.91
1:49:00	238.36	202.64	37.14	0.90	35.74	0.91
1:50:00	238.32	202.64	37.09	0.90	35.70	0.91
1:51:00	238.28	202.64	37.06	0.90	35.66	0.91
1:52:00	238.25	202.64	37.02	0.90	35.63	0.91

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:53:00	238.23	202.64	37.00	0.90	35.60	0.91
1:54:00	238.23	202.64	37.00	0.90	35.60	0.91
1:55:00	238.17	202.64	36.94	0.90	35.55	0.91
1:56:00	238.17	202.64	36.94	0.90	35.55	0.91
1:57:00	238.17	202.64	36.94	0.90	35.55	0.91
1:58:00	238.14	202.64	36.91	0.89	35.51	0.91
1:59:00	238.14	202.64	36.91	0.89	35.51	0.91
2:00:00	238.12	202.64	36.89	0.89	35.49	0.90
2:01:00	238.10	202.64	36.86	0.89	35.47	0.90
2:02:00	238.04	202.64	36.81	0.89	35.41	0.90
2:03:00	238.03	202.64	36.80	0.89	35.40	0.90
2:04:00	237.99	202.64	36.75	0.89	35.35	0.90
2:05:00	237.97	202.64	36.74	0.89	35.34	0.90
2:06:00	237.95	202.64	36.71	0.89	35.32	0.90
2:07:00	237.94	202.64	36.70	0.89	35.31	0.90
2:08:00	237.94	202.64	36.70	0.89	35.31	0.90
2:09:00	237.92	202.64	36.68	0.89	35.28	0.90
2:10:00	237.89	202.64	36.65	0.89	35.25	0.90
2:11:00	237.83	202.64	36.59	0.89	35.19	0.90
2:12:00	237.77	202.64	36.53	0.89	35.13	0.90
2:13:00	237.73	202.64	36.48	0.88	35.09	0.89
2:14:00	237.72	202.64	36.47	0.88	35.08	0.89
2:15:00	237.70	202.64	36.45	0.88	35.05	0.89
2:16:00	237.66	202.64	36.42	0.88	35.02	0.89
2:17:00	237.64	202.64	36.39	0.88	34.99	0.89
2:18:00	237.62	202.64	36.37	0.88	34.97	0.89
2:19:00	237.56	202.64	36.31	0.88	34.91	0.89
2:20:00	237.53	202.64	36.28	0.88	34.88	0.89
2:21:00	237.53	202.64	36.28	0.88	34.88	0.89
2:22:00	237.50	202.64	36.24	0.88	34.85	0.89
2:23:00	237.45	202.64	36.20	0.88	34.80	0.89
2:24:00	237.42	202.64	36.16	0.88	34.76	0.89
2:25:00	237.40	202.64	36.14	0.88	34.74	0.89
2:26:00	237.34	202.64	36.08	0.87	34.69	0.88
2:27:00	237.34	202.64	36.08	0.87	34.69	0.88
2:28:00	237.33	202.64	36.07	0.87	34.67	0.88
2:29:00	237.33	202.64	36.07	0.87	34.67	0.88
2:30:00	237.34	202.64	36.08	0.87	34.69	0.88
2:31:00	237.33	202.64	36.07	0.87	34.67	0.88
2:32:00	237.31	202.64	36.05	0.87	34.65	0.88
2:33:00	237.28	202.64	36.01	0.87	34.62	0.88
2:34:00	237.25	202.64	35.98	0.87	34.58	0.88
2:35:00	237.19	202.64	35.92	0.87	34.52	0.88
2:36:00	237.19	202.64	35.92	0.87	34.52	0.88
2:37:00	237.15	202.64	35.88	0.87	34.48	0.88
2:38:00	237.13	202.64	35.86	0.87	34.47	0.88
2:39:00	237.09	202.64	35.82	0.87	34.42	0.88
2:40:00	236.13	201.79	35.71	0.87	33.42	0.85

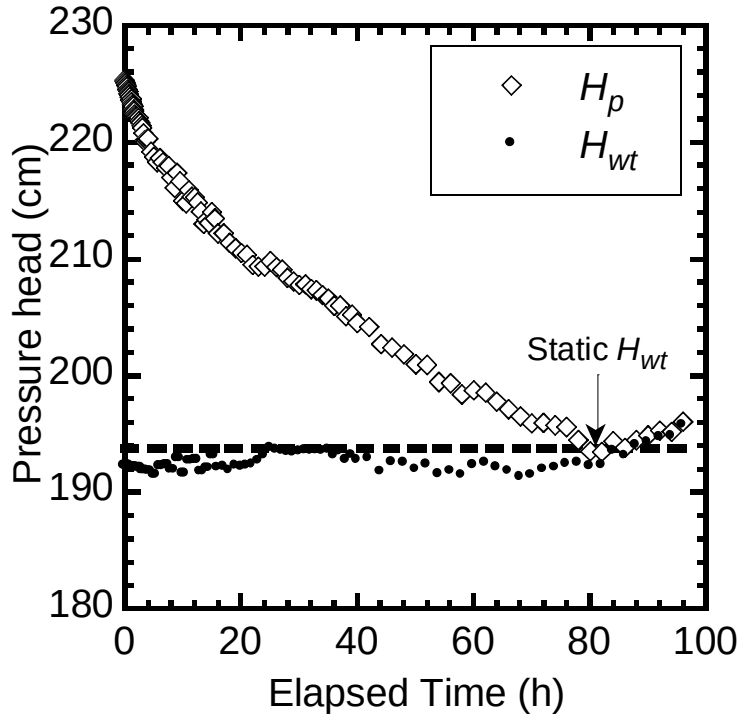
0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:41:00	236.10	201.79	35.68	0.86	33.39	0.85
2:42:00	236.08	201.79	35.65	0.86	33.37	0.85
2:43:00	236.10	201.79	35.68	0.86	33.39	0.85
2:44:00	236.08	201.79	35.65	0.86	33.37	0.85
2:45:00	236.05	201.79	35.63	0.86	33.34	0.85
2:46:00	236.04	201.79	35.62	0.86	33.33	0.85
2:47:00	236.00	201.79	35.57	0.86	33.29	0.85
2:48:00	236.00	201.79	35.57	0.86	33.29	0.85
2:49:00	235.97	201.79	35.54	0.86	33.25	0.85
2:50:00	235.95	201.79	35.53	0.86	33.24	0.85
2:51:00	235.93	201.79	35.50	0.86	33.22	0.85
2:52:00	235.89	201.79	35.46	0.86	33.17	0.85
2:53:00	235.88	201.79	35.45	0.86	33.16	0.85
2:54:00	235.83	201.79	35.40	0.86	33.11	0.84
2:55:00	235.83	201.79	35.40	0.86	33.11	0.84
2:56:00	235.78	201.79	35.34	0.86	33.06	0.84
2:57:00	235.74	201.79	35.31	0.86	33.02	0.84
2:58:00	235.73	201.79	35.30	0.86	33.01	0.84
2:59:00	235.69	201.79	35.25	0.85	32.96	0.84
3:00:00	235.68	201.79	35.24	0.85	32.95	0.84
3:01:00	235.66	201.79	35.22	0.85	32.93	0.84
3:02:00	235.58	201.79	35.14	0.85	32.85	0.84
3:03:00	235.57	201.79	35.12	0.85	32.84	0.84
3:04:00	235.52	201.79	35.08	0.85	32.79	0.84
3:05:00	235.55	201.79	35.10	0.85	32.81	0.84
3:06:00	235.49	201.79	35.04	0.85	32.76	0.84
3:07:00	235.49	201.79	35.04	0.85	32.76	0.84
3:08:00	235.46	201.79	35.01	0.85	32.72	0.83
3:09:00	235.47	201.79	35.02	0.85	32.73	0.83
3:10:00	235.46	201.79	35.01	0.85	32.72	0.83
3:11:00	235.44	201.79	34.99	0.85	32.70	0.83
3:12:00	235.44	201.79	34.99	0.85	32.70	0.83
3:13:00	235.41	201.79	34.96	0.85	32.68	0.83
3:14:00	235.38	201.79	34.93	0.85	32.64	0.83
3:15:00	235.36	201.79	34.91	0.85	32.62	0.83
3:16:00	235.31	201.79	34.86	0.84	32.57	0.83
3:17:00	235.25	201.79	34.79	0.84	32.50	0.83
3:18:00	235.25	201.79	34.79	0.84	32.50	0.83
3:19:00	235.16	201.79	34.70	0.84	32.41	0.83
3:20:00	235.16	201.79	34.70	0.84	32.41	0.83
3:21:00	235.13	201.79	34.66	0.84	32.38	0.83
3:22:00	235.14	201.79	34.68	0.84	32.39	0.83
3:23:00	235.10	201.79	34.64	0.84	32.35	0.82
3:24:00	235.09	201.79	34.63	0.84	32.34	0.82
3:25:00	235.05	201.79	34.58	0.84	32.30	0.82
3:26:00	235.04	201.79	34.57	0.84	32.29	0.82
3:27:00	234.99	201.79	34.53	0.84	32.24	0.82
3:28:00	234.98	201.79	34.52	0.84	32.23	0.82

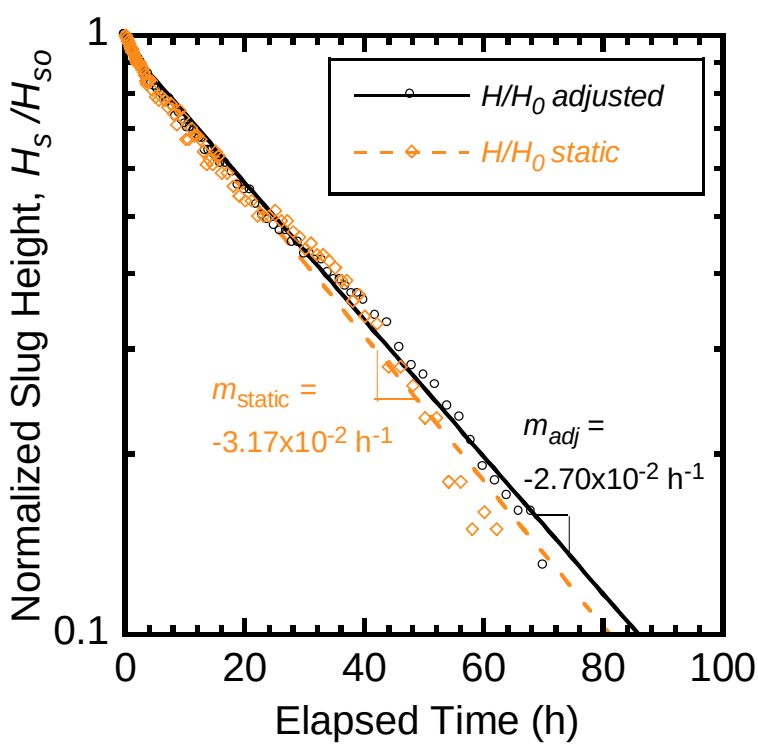
0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:29:00	234.96	201.79	34.49	0.84	32.20	0.82
3:30:00	234.94	201.79	34.47	0.84	32.18	0.82
3:31:00	234.94	201.79	34.47	0.84	32.18	0.82
3:32:00	234.90	201.79	34.43	0.83	32.15	0.82
3:33:00	234.90	201.79	34.43	0.83	32.15	0.82
3:34:00	234.85	201.79	34.38	0.83	32.09	0.82
3:35:00	234.87	201.79	34.40	0.83	32.11	0.82
3:36:00	234.83	201.79	34.35	0.83	32.07	0.82
3:37:00	234.85	201.79	34.38	0.83	32.09	0.82
3:38:00	234.82	201.79	34.34	0.83	32.06	0.82
3:39:00	234.82	201.79	34.34	0.83	32.06	0.82
3:40:00	234.79	201.74	34.37	0.83	32.03	0.82
3:41:00	234.76	201.74	34.33	0.83	32.00	0.82
3:42:00	234.74	201.74	34.31	0.83	31.97	0.82
3:43:00	234.66	201.74	34.23	0.83	31.89	0.81
3:44:00	234.65	201.74	34.22	0.83	31.88	0.81
3:45:00	234.62	201.74	34.18	0.83	31.85	0.81
3:46:00	234.57	201.74	34.14	0.83	31.80	0.81
3:47:00	234.52	201.74	34.08	0.83	31.75	0.81
3:57:00	234.35	201.74	33.91	0.82	31.57	0.80
4:07:00	234.10	201.74	33.64	0.82	31.31	0.80
4:17:00	233.88	201.74	33.42	0.81	31.08	0.79
4:27:00	233.71	201.74	33.24	0.81	30.91	0.79
4:37:00	233.53	201.74	33.06	0.80	30.72	0.78
4:47:00	233.27	201.68	32.85	0.80	30.45	0.78
4:57:00	233.01	201.68	32.58	0.79	30.18	0.77
5:07:00	232.93	201.68	32.49	0.79	30.09	0.77
5:17:00	232.65	201.68	32.21	0.78	29.80	0.76
5:27:00	232.53	201.68	32.08	0.78	29.68	0.76
5:37:00	232.31	201.68	31.85	0.77	29.45	0.75
5:47:00	232.06	201.63	31.65	0.77	29.19	0.74
5:57:00	231.95	201.63	31.53	0.76	29.08	0.74
6:07:00	231.81	201.63	31.38	0.76	28.93	0.74
6:17:00	231.68	201.63	31.25	0.76	28.79	0.73
6:27:00	231.57	201.63	31.13	0.75	28.68	0.73
6:37:00	231.39	201.63	30.95	0.75	28.49	0.73
6:47:00	231.22	201.64	30.76	0.75	28.32	0.72
6:57:00	231.06	201.64	30.59	0.74	28.15	0.72
7:07:00	230.80	201.64	30.32	0.73	27.88	0.71
7:17:00	230.56	201.64	30.07	0.73	27.63	0.70
7:27:00	230.22	201.64	29.71	0.72	27.27	0.70
7:37:00	230.11	201.64	29.60	0.72	27.16	0.69
7:47:00	229.97	201.41	29.70	0.72	27.02	0.69
8:17:00	229.32	201.41	29.02	0.70	26.34	0.67
8:47:00	229.58	202.18	28.50	0.69	26.62	0.68
9:17:00	229.36	202.18	28.27	0.69	26.39	0.67
9:47:00	228.79	202.11	27.73	0.67	25.79	0.66
10:17:00	228.53	202.11	27.47	0.67	25.52	0.65

0+33.0	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
10:47:00	228.08	202.05	27.07	0.66	25.05	0.64
11:17:00	227.38	202.05	26.34	0.64	24.33	0.62
11:47:00	227.05	201.96	26.09	0.63	23.98	0.61
12:17:00	226.85	201.96	25.89	0.63	23.78	0.61
12:47:00	226.30	201.94	25.33	0.61	23.20	0.59
13:17:00	225.94	201.94	24.95	0.60	22.82	0.58
13:47:00	225.69	201.91	24.73	0.60	22.57	0.58
14:17:00	225.16	201.91	24.18	0.59	22.02	0.56
14:47:00	224.80	201.84	23.87	0.58	21.64	0.55
15:17:00	224.60	201.84	23.66	0.57	21.43	0.55
15:47:00	224.38	201.95	23.32	0.57	21.20	0.54
16:17:00	223.94	201.95	22.86	0.55	20.74	0.53
16:47:00	223.03	201.46	22.42	0.54	19.80	0.50
17:17:00	222.47	201.46	21.84	0.53	19.22	0.49
17:47:00	222.97	201.97	21.83	0.53	19.74	0.50
18:17:00	222.23	201.97	21.06	0.51	18.97	0.48
18:47:00	222.65	202.31	21.14	0.51	19.40	0.49
19:17:00	221.84	202.31	20.30	0.49	18.56	0.47
19:47:00	221.99	202.50	20.27	0.49	18.72	0.48
20:47:00	221.45	202.63	19.57	0.47	18.16	0.46
21:47:00	221.11	202.98	18.86	0.46	17.81	0.45
22:47:00	221.39	203.60	18.49	0.45	18.09	0.46
23:47:00	220.27	203.24	17.71	0.43	16.93	0.43
24:47:00	220.21	203.28	17.60	0.43	16.87	0.43
25:47:00	220.46	204.04	17.07	0.41	17.12	0.44
26:47:00	219.69	203.78	16.54	0.40	16.33	0.42
27:47:00	219.21	203.62	16.21	0.39	15.83	0.40
28:47:00	218.73	203.49	15.84	0.38	15.33	0.39
29:47:00	219.10	204.18	15.51	0.38	15.72	0.40
30:47:00	218.21	203.83	14.95	0.36	14.79	0.38
31:47:00	218.60	204.59	14.57	0.35	15.20	0.39
33:47:00	218.52	204.90	14.17	0.34	15.11	0.39
35:47:00	217.05	203.76	13.81	0.33	13.58	0.35
37:47:00	216.59	203.36	13.76	0.33	13.11	0.33
39:47:00	215.28	202.62	13.16	0.32	11.74	0.30
41:47:00	213.86	201.65	12.70	0.31	10.27	0.26
43:47:00	212.32	201.12	11.64	0.28	8.66	0.22
45:47:00	212.77	202.46	10.72	0.26	9.13	0.23
47:47:00	211.81	201.95	10.25	0.25	8.14	0.21
49:47:00	211.46	201.90	9.95	0.24	7.78	0.20
51:47:00	209.38	200.36	9.38	0.23	5.61	0.14
53:47:00	208.72	200.31	8.75	0.21	4.93	0.13
55:47:00	207.65	200.13	7.82	0.19	3.81	0.10
57:47:00	207.40	200.49	7.19	0.17	3.55	0.09
59:47:00	206.72	200.61	6.36	0.15	2.85	0.07
61:47:00	206.79	201.10	5.92	0.14	2.92	0.07
63:47:00	205.72	200.62	5.31	0.13	1.81	0.05
65:47:00	205.78	200.90	5.07	0.12	1.86	0.05

0+33.0	**4.5 m**					**Test #2**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
67:47:00	205.05	201.16	4.05	0.10	1.11	0.03
69:47:00	204.90	201.88	3.15	0.08	0.95	0.02
71:47:00	204.41	201.57	2.95	0.07	0.44	0.01
73:47:00	204.57	201.79	2.89	0.07	0.61	0.02
75:47:00	204.56	202.24	2.42	0.06	0.60	0.02
77:47:00	203.36	201.00	2.45	0.06	-0.65	-0.02
79:47:00	204.03	201.81	2.31	0.06	0.04	0.00
81:47:00	204.24	202.37	1.94	0.05	0.26	0.01
83:47:00	204.02	202.28	1.80	0.04	0.03	0.00
85:47:00	203.24	201.48	1.84	0.04	-0.77	-0.02
87:47:00	203.37	201.71	1.73	0.04	-0.64	-0.02
89:47:00	203.85	202.46	1.44	0.03	-0.14	0.00
91:47:00	203.47	202.43	1.08	0.03	-0.53	-0.01
93:47:00	203.51	202.45	1.10	0.03	-0.49	-0.01
95:47:00	203.94	203.27	0.70	0.02	-0.05	0.00
97:47:00	203.28	202.51	0.80	0.02	-0.73	-0.02
99:47:00	203.26	202.56	0.73	0.02	-0.75	-0.02
101:47:00	203.06	202.37	0.72	0.02	-0.96	-0.02

Test Location (m)	**0+33.0**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	3
Well #	3	**Test Type**	Rate of Fall
Start Date of Test	12/8/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	193.7
R_e (cm)	29.7	**Adjusted/ Static Initial Slug Height, H_{S0} (cm)**	34.4/32.9
k_{adj} (cm/s)	2.22E-07	**k_{static} (cm/s)**	2.61E-07



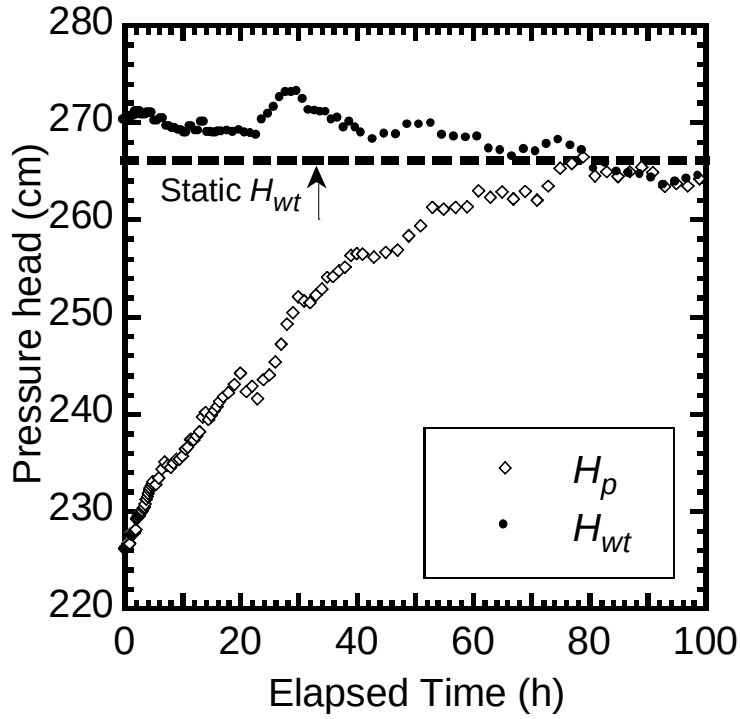


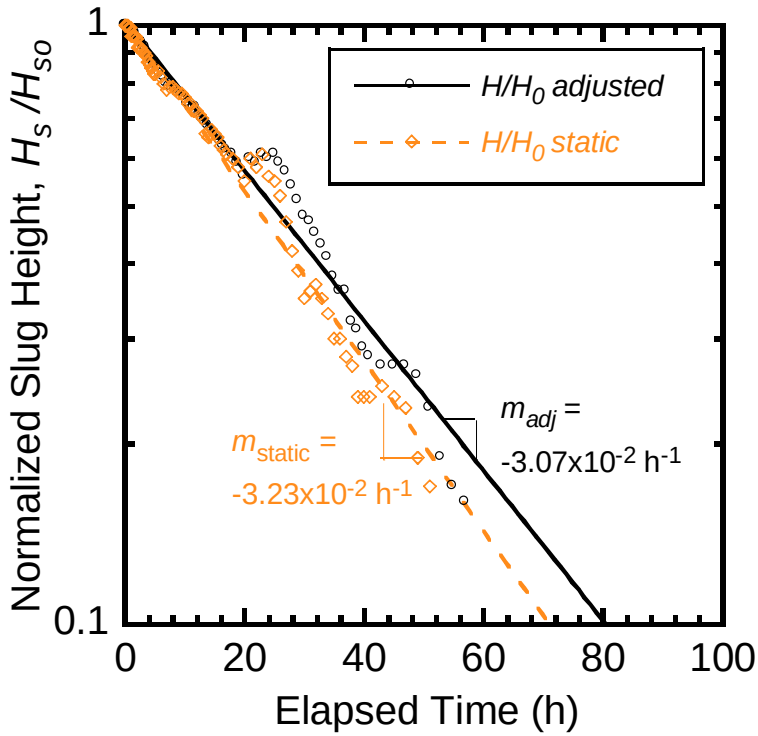
0+33.0	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	225.32	192.22	34.42	1.00	32.89	1.00
0:01:00	225.24	192.22	34.34	1.00	32.81	1.00
0:02:00	225.17	192.22	34.26	1.00	32.73	1.00
0:03:00	225.16	192.22	34.25	1.00	32.72	1.00
0:04:00	225.16	192.22	34.25	1.00	32.72	1.00
0:09:00	225.07	192.22	34.16	0.99	32.63	0.99
0:14:00	224.93	192.22	34.01	0.99	32.48	0.99
0:19:00	224.86	192.22	33.94	0.99	32.41	0.99
0:24:00	224.76	192.22	33.83	0.98	32.30	0.98
0:29:00	224.53	192.22	33.59	0.98	32.06	0.98
0:34:00	224.46	192.22	33.53	0.97	32.00	0.97
0:39:00	224.36	192.22	33.42	0.97	31.89	0.97
0:44:00	224.18	192.22	33.23	0.97	31.70	0.96
0:49:00	224.07	192.22	33.12	0.96	31.59	0.96
0:54:00	223.86	192.22	32.90	0.96	31.37	0.95
0:59:00	223.59	192.22	32.62	0.95	31.09	0.95
1:04:00	223.55	192.09	32.71	0.95	31.05	0.94
1:09:00	223.73	192.09	32.89	0.96	31.23	0.95
1:14:00	223.46	192.09	32.62	0.95	30.96	0.94
1:19:00	223.27	192.09	32.42	0.94	30.76	0.94
1:24:00	223.20	192.09	32.35	0.94	30.68	0.93
1:29:00	223.09	192.09	32.24	0.94	30.57	0.93
1:34:00	222.80	192.09	31.93	0.93	30.27	0.92
1:39:00	222.63	192.09	31.75	0.92	30.09	0.92
1:44:00	222.37	192.09	31.48	0.91	29.82	0.91
1:49:00	222.29	192.09	31.40	0.91	29.74	0.90
1:54:00	222.27	192.09	31.38	0.91	29.72	0.90
1:59:00	222.19	192.09	31.29	0.91	29.63	0.90
2:04:00	222.03	192.02	31.20	0.91	29.47	0.90
2:14:00	222.05	192.02	31.22	0.91	29.49	0.90
2:24:00	222.08	192.02	31.25	0.91	29.52	0.90
2:34:00	221.86	192.02	31.02	0.90	29.29	0.89
2:44:00	221.66	192.02	30.82	0.90	29.08	0.88
2:54:00	221.44	192.02	30.59	0.89	28.85	0.88
3:04:00	221.21	191.82	30.56	0.89	28.61	0.87
3:14:00	220.78	191.82	30.11	0.87	28.16	0.86
3:24:00	220.17	191.82	29.49	0.86	27.54	0.84
3:34:00	220.06	191.82	29.37	0.85	27.42	0.83
3:44:00	220.23	191.82	29.54	0.86	27.59	0.84
3:54:00	220.30	191.82	29.62	0.86	27.67	0.84
4:04:00	220.30	191.78	29.65	0.86	27.67	0.84
4:34:00	219.19	191.78	28.50	0.83	26.52	0.81
5:04:00	218.73	191.48	28.33	0.82	26.04	0.79
5:34:00	218.31	191.48	27.89	0.81	25.60	0.78
6:04:00	218.66	192.20	27.51	0.80	25.96	0.79
6:34:00	218.31	192.20	27.15	0.79	25.60	0.78
7:04:00	217.83	192.27	26.58	0.77	25.11	0.76
7:34:00	217.96	192.27	26.72	0.78	25.24	0.77

0+33.0	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
8:04:00	216.95	191.89	26.05	0.76	24.19	0.74
8:34:00	216.12	191.89	25.19	0.73	23.32	0.71
9:04:00	217.36	192.88	25.45	0.74	24.61	0.75
9:34:00	216.64	192.88	24.71	0.72	23.87	0.73
10:04:00	214.99	191.58	24.34	0.71	22.15	0.67
10:34:00	214.79	191.58	24.13	0.70	21.94	0.67
11:04:00	215.87	192.63	24.17	0.70	23.07	0.70
11:34:00	215.34	192.63	23.61	0.69	22.51	0.68
12:04:00	215.30	192.74	23.45	0.68	22.47	0.68
12:34:00	214.84	192.74	22.98	0.67	21.99	0.67
13:04:00	214.06	191.74	23.21	0.67	21.18	0.64
13:34:00	213.01	191.74	22.12	0.64	20.09	0.61
14:04:00	213.36	192.01	22.20	0.64	20.45	0.62
14:34:00	213.04	192.01	21.87	0.64	20.12	0.61
15:04:00	214.01	193.13	21.71	0.63	21.13	0.64
15:34:00	213.48	193.13	21.17	0.62	20.58	0.63
16:04:00	212.21	192.06	20.95	0.61	19.26	0.59
17:04:00	212.21	192.13	20.87	0.61	19.26	0.59
18:04:00	211.37	191.84	20.31	0.59	18.39	0.56
19:04:00	210.91	192.26	19.40	0.56	17.91	0.54
20:04:00	210.49	192.15	19.07	0.55	17.47	0.53
21:04:00	210.34	192.26	18.80	0.55	17.32	0.53
22:04:00	209.49	192.34	17.83	0.52	16.43	0.50
23:04:00	209.37	192.66	17.37	0.50	16.30	0.50
24:04:00	209.34	193.10	16.89	0.49	16.28	0.50
25:04:00	209.80	193.75	16.68	0.48	16.75	0.51
26:04:00	209.31	193.62	16.32	0.47	16.25	0.49
27:04:00	209.08	193.50	16.20	0.47	16.01	0.49
28:04:00	208.40	193.41	15.59	0.45	15.29	0.47
29:04:00	208.08	193.33	15.34	0.45	14.96	0.46
30:04:00	207.75	193.47	14.85	0.43	14.62	0.44
31:04:00	207.85	193.56	14.86	0.43	14.72	0.45
32:04:00	207.39	193.51	14.44	0.42	14.25	0.43
33:04:00	207.34	193.56	14.33	0.42	14.20	0.43
34:04:00	206.92	193.53	13.92	0.40	13.76	0.42
35:04:00	206.59	193.62	13.49	0.39	13.42	0.41
36:04:00	205.98	193.08	13.42	0.39	12.78	0.39
37:04:00	206.01	193.46	13.06	0.38	12.81	0.39
38:04:00	205.11	192.77	12.83	0.37	11.87	0.36
39:04:00	205.26	193.15	12.59	0.37	12.04	0.37
40:04:00	204.55	192.74	12.28	0.36	11.29	0.34
42:04:00	204.18	192.90	11.73	0.34	10.90	0.33
44:04:00	202.69	191.72	11.40	0.33	9.36	0.28
46:04:00	202.40	192.53	10.27	0.30	9.06	0.28
48:04:00	201.85	192.51	9.71	0.28	8.48	0.26
50:04:00	200.97	191.94	9.39	0.27	7.57	0.23
52:04:00	200.92	192.35	8.90	0.26	7.52	0.23
54:04:00	199.44	191.55	8.20	0.24	5.98	0.18

0+33.0	**4.5 m**					**Test #3**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
56:04:00	199.33	191.80	7.84	0.23	5.87	0.18
58:04:00	198.41	191.41	7.28	0.21	4.91	0.15
60:04:00	198.73	192.31	6.68	0.19	5.25	0.16
62:04:00	198.52	192.49	6.27	0.18	5.03	0.15
64:04:00	197.78	192.09	5.92	0.17	4.26	0.13
66:04:00	197.14	191.78	5.57	0.16	3.59	0.11
68:04:00	196.50	191.28	5.43	0.16	2.92	0.09
70:04:00	195.90	191.43	4.64	0.13	2.30	0.07
72:04:00	195.96	191.92	4.20	0.12	2.36	0.07
74:04:00	195.75	192.05	3.85	0.11	2.14	0.07
76:04:00	195.57	192.37	3.33	0.10	1.96	0.06
78:04:00	194.47	192.52	2.02	0.06	0.81	0.02
80:04:00	193.53	192.20	1.38	0.04	-0.16	-0.01
82:04:00	193.46	192.32	1.18	0.03	-0.24	-0.01
84:04:00	194.38	193.51	0.90	0.03	0.72	0.02
86:04:00	193.79	193.11	0.71	0.02	0.10	0.00
88:04:00	194.46	194.00	0.49	0.01	0.81	0.02
90:04:00	194.87	194.25	0.64	0.02	1.22	0.04
92:04:00	195.29	194.69	0.62	0.02	1.66	0.05
94:04:00	195.19	194.76	0.45	0.01	1.57	0.05
96:04:00	196.05	195.76	0.30	0.01	2.45	0.07

Test Location (m)	**0+33.0**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	4
Well #	3	**Test Type**	Rate of Rise
Start Date of Test	4/11/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	266.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	44.0/39.9
k_{adj} (cm/s)	2.52E-07	**k_{static} (cm/s)**	2.65E-07



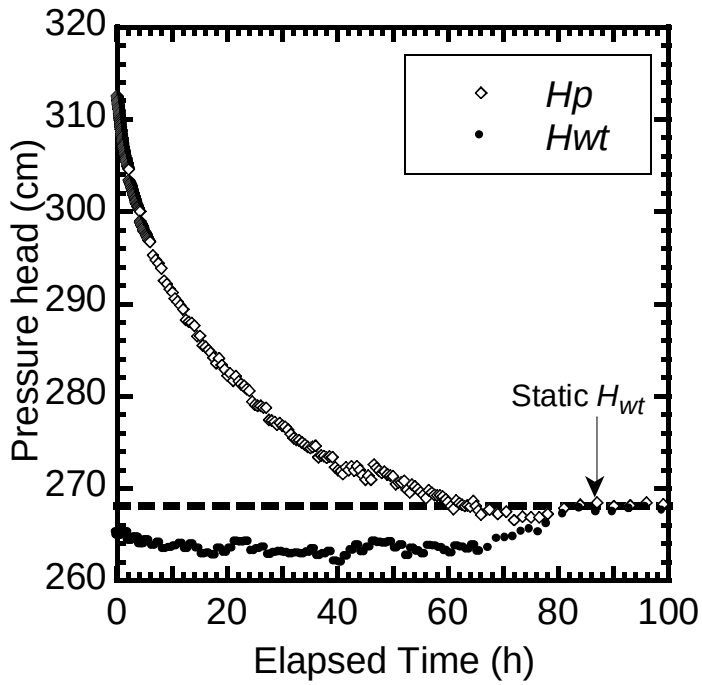


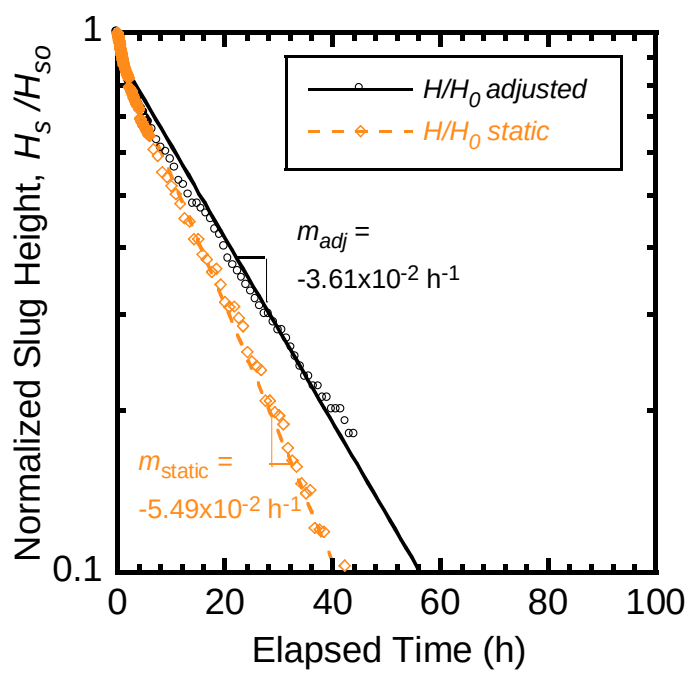
0+33.0	4.5 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	226.25	270.22	43.97	1.00	39.89	1.00
0:03:00	226.15	270.22	44.07	1.00	39.99	1.00
0:06:00	226.23	270.22	43.99	1.00	39.91	1.00
0:09:00	226.26	270.22	43.96	1.00	39.88	1.00
0:12:00	226.33	270.22	43.88	1.00	39.80	1.00
0:15:00	226.36	270.22	43.86	1.00	39.78	1.00
0:18:00	226.44	270.22	43.77	1.00	39.69	1.00
0:21:00	226.45	270.22	43.77	1.00	39.69	1.00
0:24:00	226.41	270.22	43.80	1.00	39.72	1.00
0:27:00	226.50	270.22	43.72	0.99	39.64	0.99
0:30:00	226.53	270.22	43.68	0.99	39.60	0.99
0:33:00	226.63	270.22	43.58	0.99	39.51	0.99
0:36:00	226.77	270.22	43.44	0.99	39.36	0.99
0:39:00	226.77	270.22	43.44	0.99	39.36	0.99
0:42:00	226.70	270.22	43.52	0.99	39.44	0.99
0:45:00	226.75	270.22	43.46	0.99	39.39	0.99
0:48:00	226.73	270.22	43.49	0.99	39.41	0.99
0:51:00	226.77	270.22	43.44	0.99	39.36	0.99
0:54:00	226.72	270.22	43.50	0.99	39.42	0.99
0:59:00	227.72	270.56	42.84	0.97	38.42	0.96
1:04:00	227.74	270.56	42.82	0.97	38.40	0.96
1:09:00	227.77	270.56	42.79	0.97	38.37	0.96
1:14:00	227.72	270.56	42.84	0.97	38.42	0.96
1:19:00	227.83	270.56	42.73	0.97	38.31	0.96
1:24:00	227.80	270.56	42.75	0.97	38.33	0.96
1:29:00	227.79	270.56	42.76	0.97	38.34	0.96
1:34:00	227.80	270.56	42.75	0.97	38.33	0.96
1:39:00	227.94	270.56	42.62	0.97	38.20	0.96
1:44:00	227.99	270.56	42.57	0.97	38.15	0.96
1:49:00	228.12	270.56	42.44	0.97	38.01	0.95
1:54:00	228.19	270.56	42.37	0.96	37.95	0.95
1:59:00	229.26	271.04	41.78	0.95	36.87	0.92
2:04:00	229.31	271.04	41.73	0.95	36.83	0.92
2:09:00	229.34	271.04	41.70	0.95	36.80	0.92
2:14:00	229.40	271.04	41.63	0.95	36.73	0.92
2:19:00	229.56	271.04	41.48	0.94	36.58	0.92
2:24:00	229.59	271.04	41.45	0.94	36.55	0.92
2:29:00	229.59	271.04	41.45	0.94	36.55	0.92
2:34:00	229.78	271.04	41.26	0.94	36.36	0.91
2:39:00	229.86	271.04	41.17	0.94	36.27	0.91
2:44:00	229.89	271.04	41.15	0.94	36.25	0.91
2:49:00	229.95	271.04	41.09	0.93	36.18	0.91
2:54:00	230.08	271.04	40.95	0.93	36.05	0.90
3:04:00	230.14	270.75	40.61	0.92	36.00	0.90
3:14:00	230.36	270.75	40.39	0.92	35.78	0.90
3:24:00	230.47	270.75	40.28	0.92	35.67	0.89
3:34:00	230.81	270.75	39.94	0.91	35.33	0.89
3:44:00	231.30	270.75	39.45	0.90	34.84	0.87

0+33.0	4.5 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:54:00	231.60	270.75	39.15	0.89	34.54	0.87
4:04:00	231.90	270.92	39.01	0.89	34.23	0.86
4:14:00	232.19	270.92	38.73	0.88	33.95	0.85
4:24:00	232.41	270.92	38.51	0.88	33.73	0.85
4:34:00	232.70	270.92	38.21	0.87	33.43	0.84
4:44:00	232.87	270.92	38.05	0.87	33.27	0.83
4:54:00	233.10	270.92	37.82	0.86	33.04	0.83
5:24:00	232.79	270.08	37.29	0.85	33.35	0.84
5:54:00	233.45	270.08	36.63	0.83	32.69	0.82
6:24:00	234.40	270.33	35.93	0.82	31.74	0.80
6:54:00	235.13	270.33	35.19	0.80	31.00	0.78
7:24:00	234.76	269.55	34.79	0.79	31.38	0.79
7:54:00	234.59	269.55	34.97	0.80	31.55	0.79
8:24:00	235.01	269.35	34.34	0.78	31.12	0.78
8:54:00	235.42	269.35	33.93	0.77	30.72	0.77
9:24:00	235.44	269.12	33.67	0.77	30.70	0.77
9:54:00	235.75	269.12	33.37	0.76	30.39	0.76
10:24:00	236.47	268.83	32.36	0.74	29.67	0.74
10:54:00	236.64	268.83	32.19	0.73	29.49	0.74
11:24:00	237.46	269.56	32.10	0.73	28.68	0.72
11:54:00	237.35	269.56	32.21	0.73	28.79	0.72
12:24:00	237.77	269.07	31.30	0.71	28.36	0.71
12:54:00	238.23	269.07	30.84	0.70	27.90	0.70
13:24:00	239.73	269.98	30.25	0.69	26.41	0.66
13:54:00	240.25	269.98	29.72	0.68	25.88	0.65
14:24:00	239.51	268.95	29.44	0.67	26.63	0.67
14:54:00	239.90	268.95	29.05	0.66	26.24	0.66
15:24:00	240.39	268.88	28.49	0.65	25.74	0.65
15:54:00	240.83	268.88	28.05	0.64	25.31	0.63
16:24:00	241.34	268.97	27.63	0.63	24.80	0.62
16:54:00	241.83	268.97	27.14	0.62	24.31	0.61
17:54:00	242.22	269.07	26.85	0.61	23.91	0.60
18:54:00	243.11	268.92	25.81	0.59	23.03	0.58
19:54:00	244.27	269.09	24.82	0.56	21.87	0.55
20:54:00	242.35	268.86	26.50	0.60	23.78	0.60
21:54:00	242.90	268.80	25.90	0.59	23.23	0.58
22:54:00	241.65	268.61	29.76	0.61	24.48	0.61
23:54:00	243.61	270.19	26.58	0.60	22.53	0.56
24:54:00	244.07	270.84	26.77	0.61	22.07	0.55
25:54:00	245.42	271.50	26.08	0.59	20.72	0.52
26:54:00	247.24	272.52	25.28	0.57	18.90	0.47
27:54:00	249.31	273.00	23.69	0.54	16.83	0.42
28:54:00	250.48	272.99	22.51	0.51	15.66	0.39
29:54:00	252.13	273.11	20.98	0.48	14.00	0.35
30:54:00	251.66	272.31	20.65	0.47	14.47	0.36
31:54:00	251.48	271.17	19.69	0.45	14.66	0.37
32:54:00	252.29	271.10	18.81	0.43	13.85	0.35
33:54:00	252.92	271.01	18.08	0.41	13.21	0.33

0+33.0	4.5 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
34:54:00	254.13	271.01	16.88	0.38	12.01	0.30
35:54:00	254.19	270.20	16.01	0.36	11.94	0.30
36:54:00	254.77	270.40	15.62	0.36	11.36	0.28
37:54:00	255.18	269.39	14.22	0.32	10.96	0.27
38:54:00	256.39	269.95	13.55	0.31	9.74	0.24
39:54:00	256.57	269.43	12.86	0.29	9.57	0.24
40:54:00	256.51	268.88	12.36	0.28	9.62	0.24
42:54:00	256.18	268.18	12.00	0.27	9.95	0.25
44:54:00	256.66	268.71	12.06	0.27	9.48	0.24
46:54:00	256.90	268.66	11.77	0.27	9.24	0.23
48:54:00	258.41	269.69	11.28	0.26	7.73	0.19
50:54:00	259.45	269.69	10.23	0.23	6.68	0.17
52:54:00	261.34	269.81	8.47	0.19	4.80	0.12
54:54:00	261.11	268.61	7.50	0.17	5.03	0.13
56:54:00	261.29	268.42	7.13	0.16	4.84	0.12
58:54:00	261.39	268.29	6.90	0.16	4.75	0.12
60:54:00	263.01	268.44	5.43	0.12	3.12	0.08
62:54:00	262.34	267.23	4.89	0.11	3.79	0.10
64:54:00	262.90	267.04	4.14	0.09	3.24	0.08
66:54:00	262.17	266.44	4.28	0.10	3.97	0.10
68:54:00	262.93	267.16	4.23	0.10	3.20	0.08
70:54:00	262.03	266.93	4.90	0.11	4.10	0.10
72:54:00	263.47	267.71	4.24	0.10	2.66	0.07
74:54:00	265.32	268.14	2.82	0.06	0.81	0.02
76:54:00	265.83	267.55	1.72	0.04	0.31	0.01
78:54:00	266.52	267.05	0.54	0.01	-0.38	-0.01
80:54:00	264.54	265.14	0.60	0.01	1.60	0.04
82:54:00	264.94	265.72	0.78	0.02	1.20	0.03
84:54:00	264.48	264.82	0.35	0.01	1.66	0.04
86:54:00	264.98	264.70	-0.28	-0.01	1.16	0.03
88:54:00	265.47	264.61	-0.86	-0.02	0.66	0.02
90:54:00	264.92	264.24	-0.68	-0.02	1.21	0.03
92:54:00	263.46	263.51	0.04	0.00	2.67	0.07
94:54:00	263.75	263.80	0.05	0.00	2.39	0.06
96:54:00	263.47	264.14	0.67	0.02	2.67	0.07
98:54:00	264.20	264.39	0.19	0.00	1.94	0.05
100:54:00	263.12	263.67	0.56	0.01	3.02	0.08

Test Location (m)	**0+56.3**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	1
Well #	4	**Test Type**	Rate of Fall
Start Date of Test	10/20/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	265.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	47.5/44.4
k_{adj} (cm/s)	2.97E-07	**k_{static} (cm/s)**	4.50E-07





0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	312.59	265.12	47.47	1.00	47.47	1.00
0:00:13	312.58	265.12	47.46	1.00	47.46	1.00
0:00:22	312.58	265.12	47.46	1.00	47.46	1.00
0:00:32	312.55	265.12	47.44	1.00	47.44	1.00
0:00:42	312.53	265.12	47.42	1.00	47.42	1.00
0:00:52	312.53	265.12	47.42	1.00	47.42	1.00
0:01:02	312.52	265.12	47.40	1.00	47.40	1.00
0:01:12	312.50	265.12	47.38	1.00	47.38	1.00
0:01:22	312.58	265.12	47.47	1.00	47.47	1.00
0:01:32	312.50	265.12	47.38	1.00	47.38	1.00
0:01:42	312.47	265.12	47.36	1.00	47.36	1.00
0:01:52	312.47	265.12	47.36	1.00	47.36	1.00
0:02:02	312.46	265.12	47.35	1.00	47.35	1.00
0:02:12	312.44	265.12	47.33	1.00	47.33	1.00
0:02:22	312.44	265.12	47.33	1.00	47.33	1.00
0:02:32	312.42	265.12	47.30	1.00	47.30	1.00
0:02:42	312.42	265.12	47.30	1.00	47.30	1.00
0:02:52	312.41	265.12	47.29	1.00	47.29	1.00
0:03:02	312.41	265.12	47.29	1.00	47.29	1.00
0:03:12	312.38	265.12	47.26	1.00	47.26	1.00
0:03:22	312.35	265.12	47.24	1.00	47.24	1.00
0:03:32	312.35	265.12	47.24	1.00	47.24	1.00
0:03:42	312.33	265.12	47.21	0.99	47.21	0.99
0:03:52	312.32	265.12	47.20	0.99	47.20	0.99
0:04:02	312.30	265.12	47.18	0.99	47.18	0.99
0:04:12	312.28	265.12	47.16	0.99	47.16	0.99
0:04:22	312.28	265.12	47.16	0.99	47.16	0.99
0:04:32	312.30	265.12	47.18	0.99	47.18	0.99
0:04:42	312.27	265.12	47.15	0.99	47.15	0.99
0:04:52	312.24	265.12	47.13	0.99	47.13	0.99
0:05:02	312.24	265.12	47.13	0.99	47.13	0.99
0:05:12	312.23	265.12	47.12	0.99	47.12	0.99
0:05:22	312.21	265.12	47.09	0.99	47.09	0.99
0:05:32	312.21	265.12	47.10	0.99	47.10	0.99
0:05:42	312.19	265.12	47.07	0.99	47.07	0.99
0:05:52	312.18	265.12	47.06	0.99	47.06	0.99
0:06:02	312.18	265.12	47.06	0.99	47.06	0.99
0:06:12	312.16	265.12	47.04	0.99	47.04	0.99
0:06:22	312.13	265.12	47.02	0.99	47.02	0.99
0:06:32	312.12	265.12	47.01	0.99	47.01	0.99
0:06:42	312.12	265.12	47.01	0.99	47.01	0.99
0:06:52	312.10	265.12	46.98	0.99	46.98	0.99
0:07:02	312.08	265.12	46.96	0.99	46.96	0.99
0:07:12	312.08	265.12	46.96	0.99	46.96	0.99
0:07:22	312.07	265.12	46.95	0.99	46.95	0.99
0:07:32	312.05	265.12	46.93	0.99	46.93	0.99
0:07:42	312.05	265.13	46.92	0.99	46.93	0.99
0:07:52	312.04	265.13	46.90	0.99	46.92	0.99

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:02	312.01	265.13	46.88	0.99	46.90	0.99
0:08:12	311.99	265.13	46.86	0.99	46.88	0.99
0:08:22	311.98	265.13	46.85	0.99	46.87	0.99
0:08:32	311.98	265.13	46.85	0.99	46.87	0.99
0:08:42	311.96	265.13	46.83	0.99	46.84	0.99
0:08:52	311.93	265.13	46.79	0.99	46.81	0.99
0:09:02	311.94	265.13	46.81	0.99	46.82	0.99
0:09:12	311.93	265.13	46.79	0.99	46.81	0.99
0:09:22	311.88	265.13	46.75	0.98	46.77	0.99
0:09:32	311.88	265.13	46.75	0.98	46.77	0.99
0:09:42	311.88	265.13	46.75	0.98	46.77	0.99
0:09:52	311.85	265.13	46.72	0.98	46.73	0.98
0:10:02	311.85	265.13	46.72	0.98	46.73	0.98
0:10:12	311.83	265.13	46.70	0.98	46.71	0.98
0:10:22	311.83	265.13	46.70	0.98	46.71	0.98
0:10:32	311.82	265.13	46.69	0.98	46.70	0.98
0:10:42	311.82	265.13	46.69	0.98	46.70	0.98
0:10:52	311.80	265.13	46.66	0.98	46.68	0.98
0:11:02	311.78	265.13	46.65	0.98	46.67	0.98
0:11:12	311.78	265.13	46.65	0.98	46.67	0.98
0:11:22	311.76	265.13	46.63	0.98	46.65	0.98
0:11:32	311.74	265.13	46.61	0.98	46.62	0.98
0:11:42	311.73	265.13	46.60	0.98	46.61	0.98
0:11:52	311.71	265.13	46.58	0.98	46.59	0.98
0:12:02	311.73	265.13	46.60	0.98	46.61	0.98
0:12:12	311.71	265.13	46.58	0.98	46.59	0.98
0:12:22	311.69	265.13	46.55	0.98	46.57	0.98
0:12:32	311.69	265.13	46.55	0.98	46.57	0.98
0:12:42	311.67	265.13	46.54	0.98	46.56	0.98
0:12:52	311.67	265.13	46.54	0.98	46.56	0.98
0:13:02	311.63	265.13	46.50	0.98	46.51	0.98
0:13:12	311.62	265.13	46.49	0.98	46.50	0.98
0:13:22	311.62	265.13	46.49	0.98	46.50	0.98
0:13:32	311.60	265.13	46.47	0.98	46.48	0.98
0:13:42	311.60	265.13	46.47	0.98	46.48	0.98
0:13:52	311.59	265.13	46.45	0.98	46.47	0.98
0:14:02	311.56	265.13	46.43	0.98	46.45	0.98
0:14:12	311.54	265.13	46.41	0.98	46.43	0.98
0:14:22	311.53	265.13	46.40	0.98	46.42	0.98
0:14:32	311.53	265.13	46.40	0.98	46.42	0.98
0:14:42	311.53	265.13	46.40	0.98	46.42	0.98
0:14:52	311.49	265.13	46.36	0.98	46.37	0.98
0:15:02	311.49	265.13	46.36	0.98	46.37	0.98
0:15:12	311.48	265.13	46.35	0.98	46.36	0.98
0:15:22	311.46	265.13	46.32	0.98	46.34	0.98
0:15:32	311.44	265.13	46.31	0.98	46.33	0.98
0:15:42	311.46	265.13	46.32	0.98	46.34	0.98
0:15:52	311.46	265.13	46.32	0.98	46.34	0.98

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:02	311.44	265.13	46.31	0.98	46.33	0.98
0:16:12	311.40	265.13	46.27	0.97	46.28	0.97
0:16:22	311.37	265.13	46.24	0.97	46.25	0.97
0:16:32	311.39	265.13	46.26	0.97	46.27	0.97
0:16:42	311.39	265.13	46.26	0.97	46.27	0.97
0:16:52	311.35	265.13	46.21	0.97	46.23	0.97
0:17:02	311.33	265.13	46.20	0.97	46.22	0.97
0:17:12	311.31	265.13	46.18	0.97	46.20	0.97
0:17:22	311.28	265.13	46.15	0.97	46.16	0.97
0:17:32	311.31	265.13	46.18	0.97	46.20	0.97
0:17:42	311.29	265.13	46.16	0.97	46.17	0.97
0:17:52	311.28	265.13	46.15	0.97	46.16	0.97
0:18:02	311.23	265.13	46.09	0.97	46.11	0.97
0:18:12	311.23	265.13	46.09	0.97	46.11	0.97
0:18:22	311.26	265.13	46.13	0.97	46.14	0.97
0:18:32	311.20	265.13	46.07	0.97	46.09	0.97
0:18:42	311.19	265.13	46.06	0.97	46.08	0.97
0:18:52	311.17	265.13	46.04	0.97	46.05	0.97
0:19:02	311.17	265.13	46.04	0.97	46.05	0.97
0:19:12	311.14	265.13	46.01	0.97	46.02	0.97
0:19:22	311.14	265.13	46.01	0.97	46.02	0.97
0:19:32	311.09	265.13	45.96	0.97	45.98	0.97
0:19:42	311.12	265.13	45.98	0.97	46.00	0.97
0:19:52	311.08	265.13	45.95	0.97	45.97	0.97
0:20:02	311.06	265.13	45.93	0.97	45.94	0.97
0:20:12	311.06	265.13	45.93	0.97	45.94	0.97
0:20:22	311.04	265.13	45.91	0.97	45.92	0.97
0:20:32	311.03	265.13	45.90	0.97	45.91	0.97
0:20:42	311.01	265.13	45.87	0.97	45.89	0.97
0:20:52	310.99	265.13	45.86	0.97	45.88	0.97
0:21:02	310.97	265.13	45.84	0.97	45.86	0.97
0:21:12	310.95	265.13	45.82	0.97	45.83	0.97
0:21:22	310.94	265.13	45.81	0.96	45.82	0.97
0:21:32	310.94	265.13	45.81	0.96	45.82	0.97
0:21:42	310.90	265.13	45.76	0.96	45.78	0.96
0:21:52	310.90	265.13	45.76	0.96	45.78	0.96
0:22:02	310.89	265.13	45.75	0.96	45.77	0.96
0:22:12	310.85	265.13	45.72	0.96	45.74	0.96
0:22:22	310.85	265.13	45.72	0.96	45.74	0.96
0:22:32	310.81	265.13	45.68	0.96	45.69	0.96
0:22:42	310.81	265.13	45.68	0.96	45.69	0.96
0:22:52	310.80	265.13	45.67	0.96	45.68	0.96
0:23:02	310.75	265.13	45.62	0.96	45.64	0.96
0:23:12	310.75	265.13	45.62	0.96	45.64	0.96
0:23:22	310.72	265.13	45.59	0.96	45.60	0.96
0:23:32	310.72	265.13	45.59	0.96	45.60	0.96
0:23:42	310.72	265.13	45.59	0.96	45.60	0.96
0:23:52	310.67	265.13	45.53	0.96	45.55	0.96

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:24:02	310.70	265.13	45.57	0.96	45.58	0.96
0:24:12	310.64	265.13	45.51	0.96	45.53	0.96
0:24:22	310.64	265.13	45.51	0.96	45.53	0.96
0:24:32	310.61	265.13	45.48	0.96	45.49	0.96
0:24:42	310.61	265.13	45.48	0.96	45.49	0.96
0:24:52	310.58	265.13	45.45	0.96	45.46	0.96
0:25:02	310.55	265.13	45.41	0.96	45.43	0.96
0:25:12	310.56	265.13	45.42	0.96	45.44	0.96
0:25:22	310.55	265.13	45.41	0.96	45.43	0.96
0:25:32	310.52	265.13	45.39	0.96	45.41	0.96
0:25:42	310.49	265.13	45.36	0.96	45.37	0.96
0:25:52	310.50	265.13	45.37	0.96	45.38	0.96
0:26:02	310.47	265.13	45.34	0.96	45.35	0.96
0:26:12	310.45	265.13	45.31	0.95	45.33	0.95
0:26:22	310.45	265.13	45.31	0.95	45.33	0.95
0:26:32	310.41	265.13	45.28	0.95	45.30	0.95
0:26:42	310.38	265.13	45.25	0.95	45.26	0.95
0:26:52	310.38	265.13	45.25	0.95	45.26	0.95
0:27:02	310.36	265.13	45.23	0.95	45.24	0.95
0:27:12	310.35	265.13	45.22	0.95	45.23	0.95
0:27:22	310.36	265.13	45.23	0.95	45.24	0.95
0:27:32	310.33	265.13	45.19	0.95	45.21	0.95
0:27:42	310.33	265.13	45.19	0.95	45.21	0.95
0:27:52	310.29	265.13	45.16	0.95	45.18	0.95
0:28:02	310.27	265.13	45.14	0.95	45.15	0.95
0:28:12	310.27	265.13	45.14	0.95	45.15	0.95
0:28:22	310.24	265.13	45.11	0.95	45.12	0.95
0:28:32	310.22	265.13	45.08	0.95	45.10	0.95
0:28:42	310.19	265.13	45.06	0.95	45.08	0.95
0:28:52	310.22	265.13	45.08	0.95	45.10	0.95
0:29:02	310.19	265.13	45.06	0.95	45.08	0.95
0:29:12	310.16	265.13	45.03	0.95	45.05	0.95
0:29:22	310.16	265.13	45.03	0.95	45.05	0.95
0:29:32	310.15	265.13	45.02	0.95	45.03	0.95
0:29:42	310.12	265.13	44.99	0.95	45.00	0.95
0:30:12	310.05	265.13	44.92	0.95	44.93	0.95
0:30:42	310.01	265.13	44.88	0.95	44.89	0.95
0:31:12	309.96	265.13	44.83	0.94	44.85	0.94
0:31:42	309.93	265.13	44.80	0.94	44.81	0.94
0:32:12	309.88	265.13	44.74	0.94	44.76	0.94
0:32:42	309.84	265.13	44.71	0.94	44.73	0.94
0:33:12	309.77	265.13	44.63	0.94	44.65	0.94
0:33:42	309.76	265.13	44.62	0.94	44.64	0.94
0:34:12	309.70	265.13	44.57	0.94	44.58	0.94
0:34:42	309.65	265.13	44.51	0.94	44.53	0.94
0:35:12	309.61	265.13	44.48	0.94	44.50	0.94
0:35:42	309.56	265.13	44.43	0.94	44.44	0.94
0:36:12	309.50	265.13	44.37	0.93	44.39	0.94

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:36:42	309.46	265.13	44.33	0.93	44.34	0.93
0:37:12	309.45	265.13	44.32	0.93	44.33	0.93
0:37:42	309.39	265.13	44.26	0.93	44.28	0.93
0:38:12	309.36	265.13	44.23	0.93	44.24	0.93
0:38:42	309.31	265.13	44.17	0.93	44.19	0.93
0:39:12	309.28	265.13	44.15	0.93	44.17	0.93
0:39:42	309.23	265.13	44.10	0.93	44.11	0.93
0:40:12	309.20	265.13	44.07	0.93	44.08	0.93
0:40:42	309.17	265.13	44.04	0.93	44.06	0.93
0:41:12	309.12	265.13	43.99	0.93	44.00	0.93
0:41:42	309.09	265.13	43.95	0.93	43.97	0.93
0:42:12	309.05	265.13	43.92	0.93	43.94	0.93
0:42:42	309.00	265.13	43.87	0.92	43.88	0.92
0:43:12	308.94	265.13	43.81	0.92	43.83	0.92
0:43:42	308.92	265.13	43.79	0.92	43.81	0.92
0:44:12	308.89	265.13	43.76	0.92	43.77	0.92
0:44:42	308.86	265.13	43.72	0.92	43.74	0.92
0:45:12	308.81	265.13	43.68	0.92	43.70	0.92
0:45:42	308.78	265.13	43.65	0.92	43.66	0.92
0:46:12	308.72	265.13	43.59	0.92	43.61	0.92
0:46:42	308.71	265.13	43.58	0.92	43.60	0.92
0:47:12	308.67	265.13	43.54	0.92	43.55	0.92
0:47:42	308.66	265.13	43.53	0.92	43.54	0.92
0:48:12	308.62	265.13	43.48	0.92	43.50	0.92
0:48:42	308.58	265.13	43.45	0.92	43.47	0.92
0:49:12	308.53	265.13	43.40	0.91	43.41	0.91
0:49:42	308.49	265.13	43.36	0.91	43.38	0.91
0:50:12	308.47	265.13	43.34	0.91	43.36	0.91
0:50:42	308.43	265.13	43.30	0.91	43.31	0.91
0:51:12	308.38	265.13	43.25	0.91	43.27	0.91
0:51:42	308.35	265.13	43.22	0.91	43.23	0.91
0:52:12	308.33	265.13	43.20	0.91	43.21	0.91
0:52:42	308.27	265.13	43.14	0.91	43.16	0.91
0:53:12	308.24	265.13	43.11	0.91	43.13	0.91
0:53:42	308.21	265.13	43.08	0.91	43.09	0.91
0:54:12	308.18	265.13	43.04	0.91	43.06	0.91
0:54:42	308.13	265.13	43.00	0.91	43.02	0.91
0:55:12	308.12	265.13	42.99	0.91	43.00	0.91
0:55:42	308.08	265.13	42.95	0.90	42.96	0.90
0:56:12	308.07	265.13	42.94	0.90	42.95	0.90
0:56:42	308.01	265.13	42.88	0.90	42.90	0.90
0:57:12	307.98	265.13	42.85	0.90	42.86	0.90
0:57:42	307.94	265.13	42.80	0.90	42.82	0.90
0:58:12	307.90	265.13	42.77	0.90	42.79	0.90
0:58:42	307.85	265.13	42.72	0.90	42.73	0.90
0:59:12	307.84	265.13	42.70	0.90	42.72	0.90
0:59:42	307.77	265.13	42.64	0.90	42.65	0.90
1:00:12	307.73	265.13	42.59	0.90	42.61	0.90

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:00:42	307.71	265.13	42.57	0.90	42.59	0.90
1:01:12	307.65	265.13	42.52	0.90	42.53	0.90
1:01:42	307.63	265.13	42.50	0.90	42.51	0.90
1:02:12	307.60	265.13	42.46	0.89	42.48	0.89
1:02:42	307.54	265.13	42.41	0.89	42.42	0.89
1:03:12	307.49	265.13	42.35	0.89	42.37	0.89
1:03:42	307.45	265.13	42.32	0.89	42.34	0.89
1:04:12	307.43	265.13	42.30	0.89	42.31	0.89
1:04:42	307.40	265.13	42.27	0.89	42.28	0.89
1:05:12	307.34	265.13	42.21	0.89	42.23	0.89
1:05:42	307.31	265.13	42.18	0.89	42.19	0.89
1:06:12	307.28	265.13	42.15	0.89	42.16	0.89
1:06:42	307.26	265.13	42.12	0.89	42.14	0.89
1:07:12	307.22	265.13	42.09	0.89	42.11	0.89
1:07:42	307.15	265.47	41.68	0.88	42.03	0.89
1:08:12	307.15	265.47	41.68	0.88	42.03	0.89
1:08:42	307.11	265.47	41.64	0.88	42.00	0.88
1:09:12	307.06	265.47	41.59	0.88	41.94	0.88
1:09:42	307.06	265.47	41.59	0.88	41.94	0.88
1:10:12	307.00	265.47	41.53	0.87	41.89	0.88
1:10:42	306.99	265.47	41.52	0.87	41.88	0.88
1:11:12	306.99	265.47	41.52	0.87	41.88	0.88
1:11:42	306.95	265.47	41.48	0.87	41.83	0.88
1:12:12	306.89	265.47	41.42	0.87	41.78	0.88
1:12:42	306.88	265.47	41.41	0.87	41.77	0.88
1:13:12	306.86	265.47	41.39	0.87	41.74	0.88
1:13:42	306.86	265.47	41.39	0.87	41.74	0.88
1:14:12	306.83	265.47	41.36	0.87	41.71	0.88
1:14:42	306.78	265.47	41.31	0.87	41.67	0.88
1:15:12	306.77	265.47	41.30	0.87	41.66	0.88
1:15:42	306.74	265.47	41.27	0.87	41.62	0.88
1:16:12	306.72	265.47	41.25	0.87	41.60	0.88
1:16:42	306.74	265.47	41.27	0.87	41.62	0.88
1:17:12	306.72	265.47	41.25	0.87	41.60	0.88
1:17:42	306.69	265.47	41.22	0.87	41.57	0.88
1:18:12	306.66	265.47	41.19	0.87	41.55	0.88
1:18:42	306.61	265.47	41.14	0.87	41.49	0.87
1:19:12	306.58	265.47	41.11	0.87	41.46	0.87
1:19:42	306.55	265.47	41.08	0.87	41.44	0.87
1:20:12	306.55	265.47	41.08	0.87	41.44	0.87
1:20:42	306.53	265.47	41.06	0.86	41.41	0.87
1:21:12	306.47	265.47	41.00	0.86	41.35	0.87
1:21:42	306.47	265.47	41.00	0.86	41.35	0.87
1:22:12	306.44	265.47	40.97	0.86	41.33	0.87
1:22:42	306.43	265.47	40.96	0.86	41.32	0.87
1:23:12	306.38	265.47	40.91	0.86	41.26	0.87
1:23:42	306.36	265.47	40.89	0.86	41.24	0.87
1:24:12	306.33	265.47	40.86	0.86	41.22	0.87

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:24:42	306.30	265.47	40.83	0.86	41.18	0.87
1:25:12	306.27	265.47	40.80	0.86	41.15	0.87
1:25:42	306.25	265.47	40.78	0.86	41.13	0.87
1:26:12	306.19	265.47	40.72	0.86	41.08	0.87
1:26:42	306.18	265.47	40.71	0.86	41.06	0.87
1:27:12	306.16	265.47	40.69	0.86	41.04	0.86
1:27:42	306.14	265.47	40.67	0.86	41.02	0.86
1:28:12	306.10	265.47	40.63	0.86	40.99	0.86
1:28:42	306.09	265.47	40.62	0.86	40.98	0.86
1:29:12	306.05	265.47	40.58	0.85	40.93	0.86
1:29:42	306.04	265.47	40.57	0.85	40.92	0.86
1:30:12	306.02	265.47	40.55	0.85	40.90	0.86
1:30:42	306.00	265.47	40.53	0.85	40.88	0.86
1:31:12	305.95	265.47	40.48	0.85	40.83	0.86
1:31:42	305.96	265.47	40.49	0.85	40.85	0.86
1:32:12	305.93	265.47	40.46	0.85	40.81	0.86
1:32:42	305.93	265.47	40.46	0.85	40.81	0.86
1:33:12	305.90	265.47	40.43	0.85	40.78	0.86
1:33:42	305.85	265.47	40.38	0.85	40.73	0.86
1:34:12	305.82	265.47	40.35	0.85	40.70	0.86
1:34:42	305.80	265.47	40.33	0.85	40.68	0.86
1:35:12	305.79	265.47	40.32	0.85	40.67	0.86
1:35:42	305.79	265.47	40.32	0.85	40.67	0.86
1:36:12	305.75	265.47	40.28	0.85	40.64	0.86
1:36:42	305.71	265.47	40.24	0.85	40.59	0.86
1:37:12	305.70	265.47	40.23	0.85	40.58	0.85
1:37:42	305.70	265.47	40.23	0.85	40.58	0.85
1:38:12	305.64	265.47	40.17	0.85	40.53	0.85
1:38:42	305.62	265.47	40.15	0.85	40.50	0.85
1:39:12	305.62	265.47	40.15	0.85	40.50	0.85
1:39:42	305.57	265.47	40.10	0.84	40.45	0.85
1:40:12	305.55	265.47	40.08	0.84	40.43	0.85
1:40:42	305.55	265.47	40.08	0.84	40.43	0.85
1:41:12	305.51	265.47	40.04	0.84	40.40	0.85
1:41:42	305.51	265.47	40.04	0.84	40.40	0.85
1:42:12	305.50	265.47	40.03	0.84	40.38	0.85
1:42:42	305.48	265.47	40.01	0.84	40.36	0.85
1:43:12	305.45	265.47	39.98	0.84	40.33	0.85
1:43:42	305.45	265.47	39.98	0.84	40.33	0.85
1:44:12	305.40	265.47	39.93	0.84	40.29	0.85
1:44:42	305.37	265.47	39.90	0.84	40.25	0.85
1:45:12	305.37	265.47	39.90	0.84	40.25	0.85
1:45:42	305.34	265.47	39.87	0.84	40.22	0.85
1:46:12	305.32	265.47	39.85	0.84	40.20	0.85
1:46:42	305.28	265.47	39.81	0.84	40.17	0.85
1:47:12	305.28	265.47	39.81	0.84	40.17	0.85
1:47:42	305.26	265.47	39.79	0.84	40.14	0.85
1:48:12	305.25	265.47	39.78	0.84	40.13	0.85

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:48:42	305.23	265.47	39.76	0.84	40.11	0.84
1:49:12	305.19	265.47	39.72	0.84	40.08	0.84
1:49:42	305.19	265.47	39.72	0.84	40.08	0.84
1:50:12	305.17	265.47	39.70	0.84	40.06	0.84
1:50:42	305.14	265.47	39.67	0.84	40.02	0.84
1:51:12	305.12	265.47	39.65	0.84	40.00	0.84
1:51:42	305.10	265.47	39.63	0.83	39.98	0.84
1:52:12	305.06	265.47	39.59	0.83	39.95	0.84
1:52:42	305.06	265.47	39.59	0.83	39.95	0.84
1:53:12	305.03	265.47	39.56	0.83	39.91	0.84
1:53:42	305.01	265.47	39.54	0.83	39.89	0.84
1:54:12	305.01	265.47	39.54	0.83	39.89	0.84
1:54:42	305.00	265.47	39.53	0.83	39.88	0.84
1:55:12	304.97	265.47	39.51	0.83	39.86	0.84
1:55:42	304.95	265.47	39.48	0.83	39.84	0.84
1:56:12	304.94	265.47	39.47	0.83	39.83	0.84
1:56:42	304.92	265.47	39.45	0.83	39.80	0.84
1:57:12	304.91	265.47	39.44	0.83	39.79	0.84
1:57:42	304.89	265.47	39.42	0.83	39.77	0.84
1:58:12	304.87	265.47	39.40	0.83	39.75	0.84
1:58:42	304.87	265.47	39.40	0.83	39.75	0.84
1:59:12	304.87	265.47	39.40	0.83	39.75	0.84
1:59:42	304.85	265.47	39.39	0.83	39.74	0.84
2:00:42	304.80	265.47	39.33	0.83	39.68	0.84
2:01:42	304.74	265.47	39.27	0.83	39.63	0.83
2:02:42	304.70	265.47	39.23	0.83	39.58	0.83
2:03:42	304.69	265.47	39.22	0.83	39.57	0.83
2:04:42	304.64	265.47	39.17	0.83	39.52	0.83
2:05:42	304.60	265.47	39.13	0.82	39.49	0.83
2:06:42	304.55	265.47	39.08	0.82	39.43	0.83
2:07:42	303.48	264.71	38.78	0.82	38.37	0.81
2:08:42	303.45	264.71	38.74	0.82	38.33	0.81
2:09:42	303.40	264.71	38.69	0.81	38.28	0.81
2:10:42	303.39	264.71	38.68	0.81	38.27	0.81
2:11:42	303.34	264.71	38.63	0.81	38.22	0.81
2:12:42	303.31	264.71	38.60	0.81	38.19	0.80
2:13:42	303.31	264.71	38.60	0.81	38.19	0.80
2:14:42	303.28	264.71	38.57	0.81	38.16	0.80
2:15:42	303.23	264.71	38.52	0.81	38.11	0.80
2:16:42	303.23	264.71	38.52	0.81	38.11	0.80
2:17:42	303.20	264.71	38.49	0.81	38.08	0.80
2:18:42	303.17	264.71	38.46	0.81	38.05	0.80
2:19:42	303.14	264.71	38.44	0.81	38.03	0.80
2:20:42	303.11	264.71	38.40	0.81	37.99	0.80
2:21:42	303.09	264.71	38.38	0.81	37.97	0.80
2:22:42	303.09	264.71	38.38	0.81	37.97	0.80
2:23:42	303.03	264.71	38.33	0.81	37.92	0.80
2:24:42	303.02	264.71	38.32	0.81	37.91	0.80

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:25:42	303.03	264.71	38.33	0.81	37.92	0.80
2:26:42	303.02	264.71	38.32	0.81	37.91	0.80
2:27:42	302.98	264.71	38.27	0.81	37.86	0.80
2:28:42	302.97	264.71	38.26	0.81	37.85	0.80
2:29:42	302.94	264.71	38.23	0.81	37.82	0.80
2:30:42	302.88	264.71	38.17	0.80	37.76	0.80
2:31:42	302.88	264.71	38.17	0.80	37.76	0.80
2:32:42	302.83	264.71	38.12	0.80	37.71	0.79
2:33:42	302.79	264.71	38.09	0.80	37.68	0.79
2:34:42	302.77	264.71	38.06	0.80	37.65	0.79
2:35:42	302.77	264.71	38.06	0.80	37.65	0.79
2:36:42	302.74	264.71	38.03	0.80	37.62	0.79
2:37:42	302.68	264.71	37.98	0.80	37.57	0.79
2:38:42	302.66	264.71	37.95	0.80	37.54	0.79
2:39:42	302.63	264.71	37.92	0.80	37.51	0.79
2:40:42	302.60	264.71	37.89	0.80	37.48	0.79
2:41:42	302.55	264.71	37.84	0.80	37.44	0.79
2:42:42	302.52	264.71	37.81	0.80	37.40	0.79
2:43:42	302.52	264.71	37.81	0.80	37.40	0.79
2:44:42	302.46	264.71	37.76	0.80	37.35	0.79
2:45:42	302.43	264.71	37.72	0.79	37.31	0.79
2:46:42	302.41	264.71	37.70	0.79	37.29	0.79
2:47:42	302.35	264.71	37.65	0.79	37.24	0.78
2:48:42	302.34	264.71	37.64	0.79	37.23	0.78
2:49:42	302.30	264.71	37.59	0.79	37.18	0.78
2:50:42	302.25	264.71	37.54	0.79	37.13	0.78
2:51:42	302.19	264.71	37.48	0.79	37.07	0.78
2:52:42	302.16	264.71	37.45	0.79	37.04	0.78
2:53:42	302.12	264.71	37.42	0.79	37.01	0.78
2:54:42	302.09	264.71	37.38	0.79	36.97	0.78
2:55:42	302.05	264.71	37.34	0.79	36.93	0.78
2:56:42	302.04	264.71	37.33	0.79	36.92	0.78
2:57:42	301.99	264.71	37.28	0.79	36.88	0.78
2:58:42	301.94	264.71	37.23	0.78	36.82	0.78
2:59:42	301.94	264.71	37.23	0.78	36.82	0.78
3:00:42	301.85	264.71	37.14	0.78	36.73	0.77
3:01:42	301.82	264.71	37.11	0.78	36.70	0.77
3:02:42	301.80	264.71	37.09	0.78	36.68	0.77
3:03:42	301.76	264.71	37.05	0.78	36.65	0.77
3:04:42	301.76	264.71	37.05	0.78	36.65	0.77
3:05:42	301.73	264.71	37.02	0.78	36.61	0.77
3:06:42	301.70	264.71	36.99	0.78	36.58	0.77
3:07:42	301.67	264.92	36.75	0.77	36.56	0.77
3:08:42	301.65	264.92	36.73	0.77	36.54	0.77
3:09:42	301.62	264.92	36.70	0.77	36.50	0.77
3:10:42	301.59	264.92	36.66	0.77	36.47	0.77
3:11:42	301.59	264.92	36.66	0.77	36.47	0.77
3:12:42	301.53	264.92	36.61	0.77	36.42	0.77

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:13:42	301.51	264.92	36.59	0.77	36.39	0.77
3:14:42	301.48	264.92	36.55	0.77	36.36	0.77
3:15:42	301.44	264.92	36.52	0.77	36.33	0.77
3:16:42	301.42	264.92	36.50	0.77	36.31	0.76
3:17:42	301.39	264.92	36.47	0.77	36.27	0.76
3:18:42	301.31	264.92	36.39	0.77	36.20	0.76
3:19:42	301.30	264.92	36.38	0.77	36.19	0.76
3:20:42	301.25	264.92	36.32	0.77	36.13	0.76
3:21:42	301.19	264.92	36.27	0.76	36.08	0.76
3:22:42	301.15	264.92	36.22	0.76	36.03	0.76
3:23:42	301.14	264.92	36.21	0.76	36.02	0.76
3:24:42	301.11	264.92	36.18	0.76	35.99	0.76
3:25:42	301.05	264.92	36.13	0.76	35.93	0.76
3:26:42	301.03	264.92	36.10	0.76	35.91	0.76
3:27:42	301.01	264.92	36.08	0.76	35.89	0.76
3:28:42	300.97	264.92	36.05	0.76	35.86	0.76
3:29:42	300.95	264.92	36.03	0.76	35.83	0.75
3:30:42	300.94	264.92	36.02	0.76	35.82	0.75
3:31:42	300.92	264.92	35.99	0.76	35.80	0.75
3:32:42	300.86	264.92	35.94	0.76	35.75	0.75
3:33:42	300.86	264.92	35.94	0.76	35.75	0.75
3:34:42	300.83	264.92	35.91	0.76	35.71	0.75
3:35:42	300.83	264.92	35.91	0.76	35.71	0.75
3:36:42	300.80	264.92	35.87	0.76	35.68	0.75
3:37:42	300.80	264.92	35.87	0.76	35.68	0.75
3:38:42	300.80	264.92	35.87	0.76	35.68	0.75
3:39:42	300.80	264.92	35.87	0.76	35.68	0.75
3:40:42	300.74	264.92	35.82	0.75	35.63	0.75
3:41:42	300.72	264.92	35.80	0.75	35.60	0.75
3:42:42	300.70	264.92	35.78	0.75	35.58	0.75
3:43:42	300.69	264.92	35.76	0.75	35.57	0.75
3:44:42	300.67	264.92	35.74	0.75	35.55	0.75
3:45:42	300.64	264.92	35.72	0.75	35.53	0.75
3:46:42	300.61	264.92	35.69	0.75	35.49	0.75
3:47:42	300.58	264.92	35.65	0.75	35.46	0.75
3:48:42	300.56	264.92	35.63	0.75	35.44	0.75
3:49:42	300.52	264.92	35.60	0.75	35.41	0.75
3:50:42	300.49	264.92	35.57	0.75	35.37	0.75
3:51:42	300.47	264.92	35.54	0.75	35.35	0.74
3:52:42	300.44	264.92	35.51	0.75	35.32	0.74
3:53:42	300.41	264.92	35.49	0.75	35.30	0.74
3:54:42	300.41	264.92	35.49	0.75	35.30	0.74
3:55:42	300.38	264.92	35.46	0.75	35.26	0.74
3:56:42	300.38	264.92	35.46	0.75	35.26	0.74
3:57:42	300.35	264.92	35.42	0.75	35.23	0.74
3:58:42	300.33	264.92	35.40	0.75	35.21	0.74
3:59:42	300.27	264.92	35.35	0.74	35.16	0.74
4:00:42	300.27	264.92	35.35	0.74	35.16	0.74

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:01:42	300.22	264.92	35.29	0.74	35.10	0.74
4:02:42	300.18	264.92	35.26	0.74	35.07	0.74
4:03:42	300.16	264.92	35.24	0.74	35.05	0.74
4:04:42	300.11	264.92	35.18	0.74	34.99	0.74
4:05:42	300.05	264.92	35.13	0.74	34.94	0.74
4:06:42	300.02	264.92	35.10	0.74	34.90	0.74
4:07:42	298.99	264.23	34.76	0.73	33.87	0.71
4:08:42	298.97	264.23	34.73	0.73	33.85	0.71
4:09:42	298.95	264.23	34.71	0.73	33.83	0.71
4:10:42	298.93	264.23	34.70	0.73	33.82	0.71
4:11:42	298.89	264.23	34.66	0.73	33.77	0.71
4:12:42	298.88	264.23	34.65	0.73	33.76	0.71
4:13:42	298.88	264.23	34.65	0.73	33.76	0.71
4:14:42	298.83	264.23	34.60	0.73	33.72	0.71
4:15:42	298.80	264.23	34.57	0.73	33.69	0.71
4:16:42	298.77	264.23	34.54	0.73	33.65	0.71
4:17:42	298.75	264.23	34.52	0.73	33.63	0.71
4:18:42	298.75	264.23	34.52	0.73	33.63	0.71
4:19:42	298.69	264.23	34.46	0.73	33.58	0.71
4:20:42	298.66	264.23	34.43	0.73	33.54	0.71
4:21:42	298.63	264.23	34.39	0.72	33.51	0.71
4:22:42	298.60	264.23	34.37	0.72	33.49	0.71
4:23:42	298.57	264.23	34.34	0.72	33.46	0.70
4:24:42	298.53	264.23	34.30	0.72	33.41	0.70
4:25:42	298.53	264.23	34.30	0.72	33.41	0.70
4:26:42	298.53	264.23	34.30	0.72	33.41	0.70
4:27:42	298.52	264.23	34.29	0.72	33.40	0.70
4:28:42	298.50	264.23	34.26	0.72	33.38	0.70
4:29:42	298.53	264.23	34.30	0.72	33.41	0.70
4:30:42	298.53	264.23	34.30	0.72	33.41	0.70
4:31:42	298.52	264.23	34.29	0.72	33.40	0.70
4:32:42	298.48	264.23	34.25	0.72	33.37	0.70
4:33:42	298.46	264.23	34.23	0.72	33.35	0.70
4:34:42	298.44	264.23	34.21	0.72	33.32	0.70
4:35:42	298.40	264.23	34.16	0.72	33.28	0.70
4:36:42	298.37	264.23	34.14	0.72	33.26	0.70
4:37:42	298.35	264.23	34.12	0.72	33.24	0.70
4:38:42	298.30	264.23	34.07	0.72	33.18	0.70
4:39:42	298.27	264.23	34.03	0.72	33.15	0.70
4:40:42	298.24	264.23	34.01	0.72	33.13	0.70
4:41:42	298.23	264.23	34.00	0.72	33.12	0.70
4:42:42	298.16	264.23	33.92	0.71	33.04	0.70
4:43:42	298.12	264.23	33.89	0.71	33.01	0.70
4:44:42	298.10	264.23	33.87	0.71	32.98	0.69
4:45:42	298.10	264.23	33.87	0.71	32.98	0.69
4:46:42	298.05	264.23	33.81	0.71	32.93	0.69
4:47:42	297.99	264.23	33.76	0.71	32.87	0.69
4:48:42	297.98	264.23	33.75	0.71	32.86	0.69

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:49:42	297.94	264.23	33.70	0.71	32.82	0.69
4:50:42	297.96	264.23	33.73	0.71	32.84	0.69
4:51:42	297.94	264.23	33.70	0.71	32.82	0.69
4:52:42	297.90	264.23	33.67	0.71	32.79	0.69
4:53:42	297.93	264.23	33.69	0.71	32.81	0.69
4:54:42	297.90	264.23	33.67	0.71	32.79	0.69
4:55:42	297.93	264.23	33.69	0.71	32.81	0.69
4:56:42	297.89	264.23	33.66	0.71	32.78	0.69
4:57:42	297.89	264.23	33.66	0.71	32.78	0.69
4:58:42	297.89	264.23	33.66	0.71	32.78	0.69
4:59:42	297.89	264.23	33.66	0.71	32.78	0.69
5:00:42	297.89	264.23	33.66	0.71	32.78	0.69
5:01:42	297.87	264.23	33.64	0.71	32.75	0.69
5:02:42	297.84	264.23	33.61	0.71	32.72	0.69
5:03:42	297.82	264.23	33.58	0.71	32.70	0.69
5:04:42	297.79	264.23	33.56	0.71	32.68	0.69
5:05:42	297.79	264.23	33.56	0.71	32.68	0.69
5:06:42	297.78	264.23	33.55	0.71	32.67	0.69
5:07:42	297.76	264.59	33.17	0.70	32.64	0.69
5:08:42	297.73	264.59	33.13	0.70	32.61	0.69
5:09:42	297.71	264.59	33.11	0.70	32.59	0.69
5:10:42	297.67	264.59	33.08	0.70	32.56	0.69
5:11:42	297.65	264.59	33.06	0.70	32.54	0.69
5:12:42	297.62	264.59	33.02	0.70	32.50	0.68
5:13:42	297.59	264.59	32.99	0.69	32.47	0.68
5:14:42	297.59	264.59	32.99	0.69	32.47	0.68
5:15:42	297.59	264.59	32.99	0.69	32.47	0.68
5:16:42	297.60	264.59	33.00	0.70	32.48	0.68
5:17:42	297.59	264.59	32.99	0.69	32.47	0.68
5:18:42	297.56	264.59	32.97	0.69	32.45	0.68
5:19:42	297.53	264.59	32.94	0.69	32.41	0.68
5:20:42	297.53	264.59	32.94	0.69	32.41	0.68
5:21:42	297.49	264.59	32.89	0.69	32.37	0.68
5:22:42	297.43	264.59	32.84	0.69	32.32	0.68
5:23:42	297.42	264.59	32.83	0.69	32.30	0.68
5:24:42	297.37	264.59	32.77	0.69	32.25	0.68
5:25:42	297.34	264.59	32.75	0.69	32.23	0.68
5:26:42	297.31	264.59	32.72	0.69	32.19	0.68
5:27:42	297.30	264.59	32.71	0.69	32.18	0.68
5:28:42	297.28	264.59	32.68	0.69	32.16	0.68
5:29:42	297.26	264.59	32.66	0.69	32.14	0.68
5:30:42	297.22	264.59	32.63	0.69	32.11	0.68
5:31:42	297.23	264.59	32.64	0.69	32.12	0.68
5:32:42	297.23	264.59	32.64	0.69	32.12	0.68
5:33:42	297.20	264.59	32.61	0.69	32.09	0.68
5:34:42	297.20	264.59	32.61	0.69	32.09	0.68
5:35:42	297.18	264.59	32.59	0.69	32.06	0.68
5:36:42	297.15	264.59	32.55	0.69	32.03	0.67

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
5:37:42	297.11	264.59	32.52	0.69	32.00	0.67
5:38:42	297.06	264.59	32.47	0.68	31.94	0.67
5:39:42	297.04	264.59	32.44	0.68	31.92	0.67
5:40:42	297.00	264.59	32.41	0.68	31.89	0.67
5:41:42	296.97	264.59	32.38	0.68	31.86	0.67
5:42:42	296.94	264.59	32.34	0.68	31.82	0.67
5:43:42	296.95	264.59	32.35	0.68	31.83	0.67
5:44:42	296.92	264.59	32.32	0.68	31.80	0.67
5:45:42	296.89	264.59	32.30	0.68	31.78	0.67
5:46:42	296.92	264.59	32.32	0.68	31.80	0.67
5:47:42	296.89	264.59	32.30	0.68	31.78	0.67
5:48:42	296.88	264.59	32.29	0.68	31.77	0.67
5:49:42	296.88	264.59	32.29	0.68	31.77	0.67
5:50:42	296.88	264.59	32.29	0.68	31.77	0.67
5:51:42	296.84	264.59	32.25	0.68	31.72	0.67
5:52:42	296.84	264.59	32.25	0.68	31.72	0.67
5:53:42	296.84	264.59	32.25	0.68	31.72	0.67
5:54:42	296.77	264.59	32.18	0.68	31.66	0.67
5:55:42	296.75	264.59	32.16	0.68	31.64	0.67
5:56:42	296.75	264.59	32.16	0.68	31.64	0.67
5:57:42	296.72	264.59	32.12	0.68	31.60	0.67
5:58:42	296.74	264.59	32.15	0.68	31.63	0.67
5:59:42	296.72	264.59	32.12	0.68	31.60	0.67
6:09:42	295.52	264.03	31.49	0.66	30.41	0.64
6:19:42	295.37	264.03	31.34	0.66	30.25	0.64
6:29:42	295.27	264.03	31.24	0.66	30.16	0.64
6:39:42	295.20	264.03	31.16	0.66	30.08	0.63
6:49:42	294.94	264.03	30.91	0.65	29.83	0.63
6:59:42	294.80	264.03	30.77	0.65	29.68	0.63
7:09:42	294.69	264.39	30.30	0.64	29.57	0.62
7:19:42	294.67	264.39	30.28	0.64	29.55	0.62
7:29:42	294.42	264.39	30.03	0.63	29.30	0.62
7:39:42	294.26	264.39	29.88	0.63	29.15	0.61
7:49:42	294.13	264.39	29.75	0.63	29.02	0.61
7:59:42	293.87	264.39	29.48	0.62	28.75	0.61
8:09:42	292.70	263.70	29.00	0.61	27.58	0.58
8:19:42	292.65	263.70	28.95	0.61	27.54	0.58
8:29:42	292.51	263.70	28.81	0.61	27.39	0.58
8:39:42	292.51	263.70	28.81	0.61	27.39	0.58
8:49:42	292.32	263.70	28.62	0.60	27.21	0.57
8:59:42	292.18	263.70	28.48	0.60	27.06	0.57
9:09:42	292.10	263.83	28.27	0.60	29.79	0.57
9:19:42	291.82	263.83	27.98	0.59	26.70	0.56
9:29:42	291.65	263.83	27.82	0.59	26.54	0.56
9:39:42	291.64	263.83	27.81	0.59	26.53	0.56
9:49:42	291.42	263.83	27.59	0.58	26.31	0.55
9:59:42	291.26	263.83	27.43	0.58	26.14	0.55
10:09:42	291.08	263.97	27.12	0.57	25.97	0.55

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
10:19:42	290.83	263.97	26.87	0.57	25.72	0.54
10:29:42	290.61	263.97	26.65	0.56	25.50	0.54
10:39:42	290.55	263.97	26.58	0.56	25.43	0.54
10:49:42	290.49	263.97	26.53	0.56	25.38	0.53
10:59:42	290.29	263.97	26.33	0.55	25.18	0.53
11:09:42	290.13	264.26	25.87	0.54	25.01	0.53
11:19:42	289.99	264.26	25.72	0.54	24.87	0.52
11:29:42	289.85	264.26	25.58	0.54	24.73	0.52
11:39:42	289.63	264.26	25.36	0.53	24.51	0.52
11:49:42	289.52	264.26	25.25	0.53	24.40	0.51
11:59:42	289.45	264.26	25.19	0.53	24.33	0.51
12:09:42	288.30	263.71	24.59	0.52	23.18	0.49
12:19:42	288.35	263.71	24.65	0.52	23.24	0.49
12:29:42	288.28	263.71	24.57	0.52	23.16	0.49
12:39:42	288.18	263.71	24.47	0.52	23.06	0.49
12:49:42	288.16	263.71	24.45	0.52	23.04	0.49
12:59:42	288.08	263.71	24.37	0.51	22.96	0.48
13:09:42	288.03	264.17	23.86	0.50	22.91	0.48
13:19:42	288.03	264.17	23.86	0.50	22.91	0.48
13:29:42	287.96	264.17	23.79	0.50	22.84	0.48
13:39:42	287.87	264.17	23.71	0.50	22.75	0.48
13:49:42	287.72	264.17	23.55	0.50	22.60	0.48
13:59:42	287.66	264.17	23.50	0.50	22.55	0.47
14:09:42	286.56	263.80	22.76	0.48	21.44	0.45
14:19:42	286.49	263.80	22.69	0.48	21.37	0.45
14:29:42	286.52	263.80	22.72	0.48	21.41	0.45
14:39:42	286.56	263.80	22.76	0.48	21.44	0.45
14:49:42	286.60	263.80	22.80	0.48	21.48	0.45
14:59:42	286.55	263.80	22.75	0.48	21.43	0.45
15:09:42	285.54	263.16	22.38	0.47	20.42	0.43
15:19:42	285.58	263.16	22.42	0.47	20.46	0.43
15:29:42	285.56	263.16	22.40	0.47	20.44	0.43
15:39:42	285.54	263.16	22.38	0.47	20.42	0.43
15:49:42	285.39	263.16	22.23	0.47	20.28	0.43
15:59:42	285.34	263.16	22.18	0.47	20.22	0.43
16:09:42	285.34	263.19	22.15	0.47	20.22	0.43
16:19:42	285.20	263.19	22.01	0.46	20.08	0.42
16:29:42	285.08	263.19	21.88	0.46	19.96	0.42
16:39:42	285.05	263.19	21.86	0.46	19.94	0.42
16:49:42	284.89	263.19	21.70	0.46	19.77	0.42
16:59:42	284.75	263.19	21.56	0.45	19.63	0.41
17:09:42	284.53	263.02	21.51	0.45	19.41	0.41
17:19:42	284.43	263.02	21.41	0.45	19.31	0.41
17:29:42	284.16	263.02	21.14	0.45	19.04	0.40
17:39:42	283.93	263.02	20.91	0.44	18.81	0.40
17:49:42	283.71	263.02	20.69	0.44	18.59	0.39
17:59:42	283.60	263.02	20.58	0.43	18.48	0.39
18:09:42	284.47	263.79	20.68	0.44	19.36	0.41

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
18:19:42	284.36	263.79	20.57	0.43	19.25	0.41
18:29:42	284.14	263.79	20.35	0.43	19.03	0.40
18:39:42	284.05	263.79	20.26	0.43	18.93	0.40
18:49:42	283.72	263.79	19.93	0.42	18.60	0.39
18:59:42	283.39	263.79	19.60	0.41	18.27	0.38
19:09:42	283.30	263.31	19.99	0.42	18.18	0.38
19:19:42	283.21	263.31	19.90	0.42	18.10	0.38
19:29:42	282.93	263.31	19.62	0.41	17.81	0.38
19:39:42	282.76	263.31	19.45	0.41	17.65	0.37
19:49:42	282.48	263.31	19.17	0.40	17.36	0.37
19:59:42	282.26	263.31	18.95	0.40	17.14	0.36
20:09:42	282.97	263.77	19.20	0.40	17.86	0.38
20:19:42	282.75	263.77	18.98	0.40	17.64	0.37
20:29:42	282.50	263.77	18.73	0.39	17.38	0.37
20:39:42	282.25	263.77	18.48	0.39	17.13	0.36
20:49:42	281.96	263.77	18.19	0.38	16.85	0.35
20:59:42	281.68	263.77	17.91	0.38	16.56	0.35
21:09:42	282.53	264.52	18.01	0.38	17.42	0.37
21:19:42	282.35	264.52	17.83	0.38	17.23	0.36
21:29:42	282.17	264.52	17.65	0.37	17.06	0.36
21:39:42	282.01	264.52	17.49	0.37	16.89	0.36
21:49:42	281.78	264.52	17.26	0.36	16.66	0.35
21:59:42	281.61	264.52	17.09	0.36	16.50	0.35
22:09:42	281.47	264.45	17.02	0.36	16.35	0.34
22:19:42	281.42	264.45	16.97	0.36	16.30	0.34
22:29:42	281.33	264.45	16.88	0.36	16.21	0.34
22:39:42	281.33	264.45	16.88	0.36	16.21	0.34
22:49:42	281.24	264.45	16.79	0.35	16.12	0.34
22:59:42	281.14	264.45	16.69	0.35	16.03	0.34
23:09:42	280.97	264.48	16.48	0.35	15.85	0.33
23:19:42	280.89	264.48	16.41	0.35	15.77	0.33
23:29:42	280.80	264.48	16.32	0.34	15.69	0.33
23:39:42	280.80	264.48	16.32	0.34	15.69	0.33
23:49:42	280.69	264.48	16.21	0.34	15.58	0.33
23:59:42	280.59	264.48	16.11	0.34	15.48	0.33
24:09:42	279.53	263.50	16.03	0.34	14.41	0.30
24:19:42	279.41	263.50	15.91	0.34	14.29	0.30
24:29:42	279.42	263.50	15.92	0.34	14.30	0.30
24:39:42	279.28	263.50	15.78	0.33	14.16	0.30
24:49:42	279.27	263.50	15.77	0.33	14.15	0.30
24:59:42	279.10	263.50	15.60	0.33	13.99	0.29
25:09:42	278.99	263.72	15.27	0.32	13.88	0.29
25:19:42	278.94	263.72	15.22	0.32	13.82	0.29
25:29:42	278.92	263.72	15.19	0.32	13.80	0.29
25:39:42	278.92	263.72	15.19	0.32	13.80	0.29
25:49:42	278.88	263.72	15.16	0.32	13.77	0.29
25:59:42	278.96	263.72	15.24	0.32	13.84	0.29
26:09:42	278.97	263.90	15.07	0.32	13.86	0.29

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
26:19:42	278.85	263.90	14.95	0.31	13.73	0.29
26:29:42	278.77	263.90	14.87	0.31	13.66	0.29
26:39:42	278.69	263.90	14.78	0.31	13.57	0.29
26:49:42	278.69	263.90	14.78	0.31	13.57	0.29
26:59:42	278.80	263.90	14.89	0.31	13.68	0.29
27:09:42	277.59	263.06	14.53	0.31	12.47	0.26
27:19:42	277.56	263.06	14.49	0.31	12.44	0.26
27:29:42	277.43	263.06	14.36	0.30	12.31	0.26
27:39:42	277.45	263.06	14.39	0.30	12.33	0.26
27:49:42	277.47	263.06	14.41	0.30	12.35	0.26
27:59:42	277.36	263.06	14.30	0.30	12.24	0.26
28:09:42	277.42	263.26	14.16	0.30	12.30	0.26
28:19:42	277.42	263.26	14.16	0.30	12.30	0.26
28:29:42	277.28	263.26	14.03	0.30	12.17	0.26
28:39:42	277.16	263.26	13.91	0.29	12.05	0.25
28:49:42	277.07	263.26	13.82	0.29	11.96	0.25
28:59:42	276.94	263.26	13.69	0.29	11.83	0.25
29:09:42	276.98	263.40	13.58	0.29	11.86	0.25
29:19:42	277.03	263.40	13.63	0.29	11.91	0.25
29:29:42	277.13	263.40	13.73	0.29	12.01	0.25
29:39:42	277.05	263.40	13.65	0.29	11.94	0.25
29:49:42	276.92	263.40	13.52	0.28	11.80	0.25
29:59:42	276.83	263.40	13.43	0.28	11.72	0.25
30:09:42	276.75	263.26	13.48	0.28	11.63	0.24
30:19:42	276.78	263.26	13.52	0.28	11.66	0.25
30:29:42	276.71	263.26	13.45	0.28	11.60	0.24
30:39:42	276.60	263.26	13.34	0.28	11.49	0.24
30:49:42	276.53	263.26	13.26	0.28	11.41	0.24
30:59:42	276.41	263.26	13.14	0.28	11.29	0.24
31:09:42	276.24	263.14	13.11	0.28	11.13	0.23
31:19:42	275.99	263.14	12.85	0.27	10.87	0.23
31:29:42	275.93	263.14	12.80	0.27	10.82	0.23
31:39:42	275.72	263.14	12.58	0.27	10.60	0.22
31:49:42	275.60	263.14	12.46	0.26	10.48	0.22
31:59:42	275.49	263.14	12.35	0.26	10.37	0.22
32:09:42	275.40	263.19	12.21	0.26	10.28	0.22
32:19:42	275.29	263.19	12.10	0.25	10.17	0.21
32:29:42	275.32	263.19	12.13	0.26	10.20	0.21
32:39:42	275.40	263.19	12.21	0.26	10.28	0.22
32:49:42	275.21	263.19	12.02	0.25	10.10	0.21
32:59:42	275.23	263.19	12.04	0.25	10.12	0.21
33:09:42	275.18	263.15	12.03	0.25	10.06	0.21
33:19:42	275.15	263.15	12.00	0.25	10.03	0.21
33:29:42	274.99	263.15	11.85	0.25	9.88	0.21
33:39:42	274.95	263.15	11.80	0.25	9.83	0.21
33:49:42	274.93	263.15	11.78	0.25	9.81	0.21
33:59:42	274.73	263.15	11.58	0.24	9.61	0.20
34:09:42	274.64	263.37	11.28	0.24	9.53	0.20

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
34:19:42	274.54	263.37	11.18	0.24	9.43	0.20
34:29:42	274.48	263.37	11.11	0.23	9.36	0.20
34:39:42	274.48	263.37	11.11	0.23	9.36	0.20
34:49:42	274.49	263.37	11.12	0.23	9.37	0.20
34:59:42	274.40	263.37	11.04	0.23	9.28	0.20
35:09:42	274.44	263.70	10.75	0.23	9.33	0.20
35:19:42	274.51	263.70	10.82	0.23	9.39	0.20
35:29:42	274.48	263.70	10.78	0.23	9.36	0.20
35:39:42	274.48	263.70	10.78	0.23	9.36	0.20
35:49:42	274.49	263.70	10.79	0.23	9.37	0.20
35:59:42	274.64	263.70	10.95	0.23	9.53	0.20
36:09:42	273.46	262.94	10.51	0.22	8.34	0.18
36:19:42	273.47	262.94	10.53	0.22	8.35	0.18
36:29:42	273.43	262.94	10.48	0.22	8.31	0.18
36:39:42	273.55	262.94	10.60	0.22	8.43	0.18
36:49:42	273.60	262.94	10.66	0.22	8.48	0.18
36:59:42	273.62	262.94	10.68	0.22	8.51	0.18
37:09:42	273.58	263.19	10.39	0.22	8.46	0.18
37:19:42	273.58	263.19	10.39	0.22	8.46	0.18
37:29:42	273.52	263.19	10.34	0.22	8.41	0.18
37:39:42	273.52	263.19	10.34	0.22	8.41	0.18
37:49:42	273.38	263.19	10.19	0.21	8.26	0.17
37:59:42	273.37	263.19	10.18	0.21	8.25	0.17
38:09:42	273.49	263.40	10.09	0.21	8.37	0.18
38:19:42	273.46	263.40	10.06	0.21	8.34	0.18
38:29:42	273.47	263.40	10.07	0.21	8.35	0.18
38:39:42	273.31	263.40	9.91	0.21	8.20	0.17
38:49:42	273.35	263.40	9.95	0.21	8.23	0.17
38:59:42	273.40	263.40	10.00	0.21	8.29	0.17
39:09:42	272.36	262.39	9.97	0.21	7.24	0.15
39:19:42	272.24	262.39	9.85	0.21	7.12	0.15
39:29:42	272.31	262.39	9.91	0.21	7.19	0.15
39:39:42	272.22	262.39	9.83	0.21	7.10	0.15
39:49:42	272.13	262.39	9.74	0.21	7.02	0.15
39:59:42	271.99	262.39	9.60	0.20	6.87	0.14
40:09:42	271.91	262.26	9.65	0.20	6.80	0.14
40:19:42	271.84	262.26	9.58	0.20	6.72	0.14
40:29:42	271.86	262.26	9.60	0.20	6.74	0.14
40:39:42	271.86	262.26	9.60	0.20	6.74	0.14
40:49:42	271.77	262.26	9.51	0.20	6.65	0.14
40:59:42	271.55	262.26	9.29	0.20	6.43	0.14
41:09:42	272.41	262.94	9.47	0.20	7.29	0.15
41:19:42	272.37	262.94	9.43	0.20	7.26	0.15
41:29:42	272.34	262.94	9.40	0.20	7.22	0.15
41:39:42	272.26	262.94	9.32	0.20	7.15	0.15
41:49:42	272.09	262.94	9.15	0.19	6.97	0.15
41:59:42	272.00	262.94	9.06	0.19	6.88	0.15
42:09:42	272.75	263.57	9.18	0.19	7.63	0.16

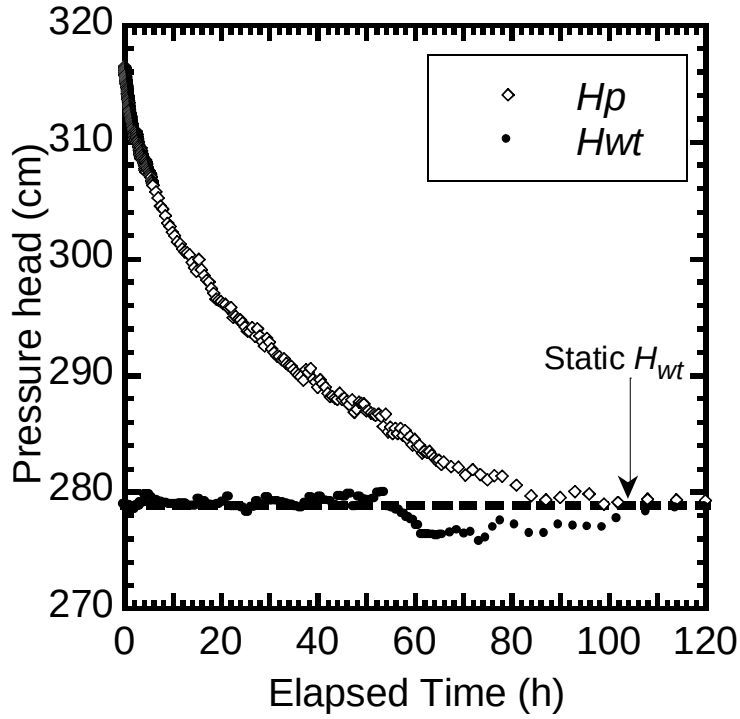
0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
42:19:42	272.60	263.57	9.04	0.19	7.49	0.16
42:29:42	272.41	263.57	8.84	0.19	7.29	0.15
42:39:42	272.31	263.57	8.74	0.18	7.19	0.15
42:49:42	272.25	263.57	8.69	0.18	7.14	0.15
42:59:42	271.97	263.57	8.40	0.18	6.85	0.14
43:09:42	272.84	264.07	8.77	0.18	7.73	0.16
43:19:42	272.63	264.07	8.55	0.18	7.51	0.16
43:29:42	272.45	264.07	8.38	0.18	7.33	0.15
43:39:42	272.34	264.07	8.27	0.17	7.22	0.15
43:49:42	272.18	264.07	8.10	0.17	7.06	0.15
43:59:42	272.01	264.07	7.94	0.17	6.90	0.15
44:09:42	271.95	263.41	8.54	0.18	6.83	0.14
44:19:42	271.80	263.41	8.39	0.18	6.69	0.14
44:29:42	271.45	263.41	8.04	0.17	6.34	0.13
44:39:42	271.31	263.41	7.90	0.17	6.19	0.13
44:49:42	271.09	263.41	7.68	0.16	5.97	0.13
44:59:42	270.95	263.41	7.54	0.16	5.83	0.12
45:09:42	271.79	263.92	7.87	0.17	6.68	0.14
45:19:42	271.51	263.92	7.59	0.16	6.39	0.13
45:29:42	271.41	263.92	7.49	0.16	6.29	0.13
45:39:42	271.30	263.92	7.38	0.16	6.18	0.13
45:49:42	271.09	263.92	7.17	0.15	5.98	0.13
45:59:42	270.99	263.92	7.07	0.15	5.88	0.12
46:09:42	272.85	264.51	8.34	0.18	7.73	0.16
46:19:42	272.67	264.51	8.16	0.17	7.55	0.16
46:29:42	272.59	264.51	8.09	0.17	7.48	0.16
46:39:42	272.48	264.51	7.98	0.17	7.37	0.16
46:49:42	272.41	264.51	7.90	0.17	7.29	0.15
46:59:42	272.25	264.51	7.75	0.16	7.14	0.15
47:09:42	272.07	264.40	7.67	0.16	6.95	0.15
47:19:42	271.93	264.40	7.53	0.16	6.81	0.14
47:29:42	271.95	264.40	7.55	0.16	6.83	0.14
47:39:42	271.80	264.40	7.41	0.16	6.69	0.14
47:49:42	271.71	264.40	7.31	0.15	6.59	0.14
47:59:42	271.71	264.40	7.31	0.15	6.59	0.14
48:09:42	271.75	264.31	7.44	0.16	6.63	0.14
48:19:42	271.82	264.31	7.50	0.16	6.70	0.14
48:29:42	271.82	264.31	7.50	0.16	6.70	0.14
48:39:42	271.73	264.31	7.42	0.16	6.61	0.14
48:49:42	271.62	264.31	7.31	0.15	6.50	0.14
48:59:42	271.53	264.31	7.22	0.15	6.41	0.14
49:09:42	271.53	264.45	7.08	0.15	6.41	0.14
49:19:42	271.42	264.45	6.98	0.15	6.30	0.13
49:29:42	271.40	264.45	6.95	0.15	6.28	0.13
49:39:42	271.37	264.45	6.92	0.15	6.25	0.13
49:49:42	271.42	264.45	6.98	0.15	6.30	0.13
49:59:42	271.37	264.45	6.92	0.15	6.25	0.13
50:09:42	270.35	263.79	6.55	0.14	5.23	0.11

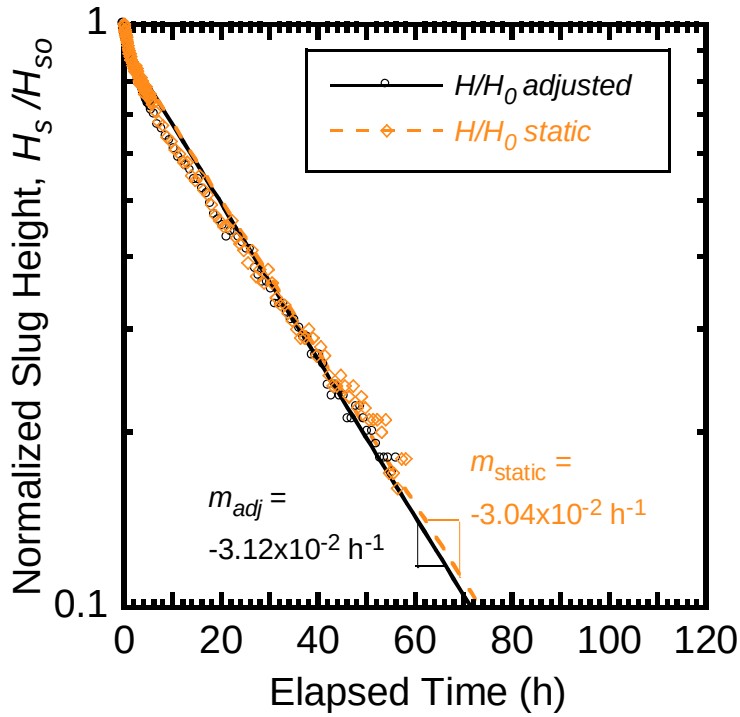
0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
50:19:42	270.43	263.79	6.64	0.14	5.32	0.11
50:29:42	270.46	263.79	6.66	0.14	5.34	0.11
50:39:42	270.47	263.79	6.67	0.14	5.35	0.11
50:49:42	270.57	263.79	6.77	0.14	5.45	0.11
50:59:42	270.69	263.79	6.89	0.15	5.57	0.12
51:09:42	270.71	264.05	6.66	0.14	5.59	0.12
51:19:42	270.74	264.05	6.69	0.14	5.62	0.12
51:29:42	270.69	264.05	6.64	0.14	5.57	0.12
51:39:42	270.80	264.05	6.75	0.14	5.68	0.12
51:49:42	270.68	264.05	6.63	0.14	5.56	0.12
51:59:42	270.87	264.05	6.82	0.14	5.76	0.12
52:09:42	269.85	262.94	6.91	0.15	4.74	0.10
52:19:42	269.96	262.94	7.02	0.15	4.85	0.10
52:29:42	269.89	262.94	6.94	0.15	4.77	0.10
52:39:42	269.67	262.94	6.72	0.14	4.55	0.10
52:49:42	269.61	262.94	6.67	0.14	4.50	0.09
52:59:42	269.56	262.94	6.61	0.14	4.44	0.09
53:09:42	270.60	263.77	6.83	0.14	5.48	0.12
53:19:42	270.47	263.77	6.70	0.14	5.35	0.11
53:29:42	270.43	263.77	6.66	0.14	5.32	0.11
53:39:42	270.37	263.77	6.60	0.14	5.25	0.11
53:49:42	270.31	263.77	6.54	0.14	5.20	0.11
53:59:42	270.23	263.77	6.46	0.14	5.11	0.11
54:09:42	270.13	263.45	6.68	0.14	5.01	0.11
54:19:42	270.09	263.45	6.65	0.14	4.98	0.10
54:29:42	269.93	263.45	6.48	0.14	4.81	0.10
54:39:42	269.84	263.45	6.40	0.13	4.73	0.10
54:49:42	269.70	263.45	6.25	0.13	4.58	0.10
54:59:42	269.60	263.45	6.16	0.13	4.48	0.09
55:09:42	269.48	263.18	6.30	0.13	4.36	0.09
55:19:42	269.45	263.18	6.27	0.13	4.33	0.09
55:29:42	269.34	263.18	6.16	0.13	4.22	0.09
55:39:42	269.14	263.18	5.96	0.13	4.02	0.08
55:49:42	268.95	263.18	5.78	0.12	3.84	0.08
55:59:42	268.94	263.18	5.77	0.12	3.83	0.08
56:09:42	269.85	264.01	5.84	0.12	4.74	0.10
56:19:42	269.89	264.01	5.87	0.12	4.77	0.10
56:29:42	269.81	264.01	5.80	0.12	4.69	0.10
56:39:42	269.78	264.01	5.76	0.12	4.66	0.10
56:49:42	269.66	264.01	5.64	0.12	4.54	0.10
56:59:42	269.55	264.01	5.53	0.12	4.43	0.09
57:09:42	269.42	263.94	5.48	0.12	4.30	0.09
57:19:42	269.36	263.94	5.42	0.11	4.24	0.09
57:29:42	269.30	263.94	5.36	0.11	4.18	0.09
57:39:42	269.42	263.94	5.48	0.12	4.30	0.09
57:49:42	269.42	263.94	5.48	0.12	4.30	0.09
57:59:42	269.25	263.94	5.32	0.11	4.13	0.09
58:09:42	269.15	263.83	5.32	0.11	4.04	0.09

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
58:19:42	269.15	263.83	5.32	0.11	4.04	0.09
58:29:42	269.25	263.83	5.42	0.11	4.13	0.09
58:39:42	269.30	263.83	5.46	0.12	4.18	0.09
58:49:42	269.11	263.83	5.28	0.11	3.99	0.08
58:59:42	269.13	263.83	5.30	0.11	4.01	0.08
59:09:42	269.04	263.53	5.52	0.12	3.93	0.08
59:19:42	268.86	263.53	5.33	0.11	3.74	0.08
59:29:42	268.83	263.53	5.31	0.11	3.72	0.08
59:39:42	268.79	263.53	5.26	0.11	3.67	0.08
59:49:42	268.77	263.53	5.24	0.11	3.65	0.08
59:59:42	268.55	263.53	5.02	0.11	3.43	0.07
60:09:42	268.49	263.21	5.28	0.11	3.38	0.07
60:19:42	268.37	263.21	5.16	0.11	3.26	0.07
60:29:42	268.12	263.21	4.91	0.10	3.01	0.06
60:39:42	268.13	263.21	4.92	0.10	3.02	0.06
60:49:42	268.05	263.21	4.83	0.10	2.93	0.06
60:59:42	267.83	263.21	4.61	0.10	2.71	0.06
61:09:42	268.92	263.96	4.97	0.10	3.81	0.08
61:19:42	268.90	263.96	4.95	0.10	3.78	0.08
61:29:42	268.74	263.96	4.78	0.10	3.62	0.08
61:39:42	268.51	263.96	4.55	0.10	3.39	0.07
61:49:42	268.48	263.96	4.53	0.10	3.37	0.07
61:59:42	268.39	263.96	4.43	0.09	3.27	0.07
62:09:42	268.23	263.91	4.32	0.09	3.12	0.07
62:19:42	268.22	263.91	4.31	0.09	3.10	0.07
62:29:42	268.25	263.91	4.35	0.09	3.14	0.07
62:39:42	268.27	263.91	4.36	0.09	3.15	0.07
62:49:42	268.22	263.91	4.31	0.09	3.10	0.07
62:59:42	268.12	263.91	4.21	0.09	3.01	0.06
63:09:42	268.22	263.65	4.57	0.10	3.10	0.07
63:19:42	268.20	263.65	4.55	0.10	3.08	0.06
63:29:42	268.18	263.65	4.53	0.10	3.06	0.06
63:39:42	268.07	263.65	4.42	0.09	2.95	0.06
63:49:42	267.97	263.65	4.32	0.09	2.85	0.06
63:59:42	268.02	263.65	4.38	0.09	2.91	0.06
64:09:42	268.89	264.08	4.81	0.10	3.77	0.08
64:19:42	268.77	264.08	4.69	0.10	3.65	0.08
64:29:42	268.63	264.08	4.55	0.10	3.51	0.07
64:39:42	268.44	264.08	4.36	0.09	3.32	0.07
64:49:42	268.24	264.08	4.17	0.09	3.13	0.07
64:59:42	268.10	264.08	4.02	0.08	2.98	0.06
65:09:42	267.90	263.46	4.45	0.09	2.79	0.06
65:19:42	267.79	263.46	4.34	0.09	2.68	0.06
65:29:42	267.65	263.46	4.19	0.09	2.54	0.05
65:39:42	267.44	263.46	3.99	0.08	2.33	0.05
65:49:42	267.30	263.46	3.84	0.08	2.19	0.05
65:59:42	267.18	263.46	3.72	0.08	2.06	0.04
66:29:42	267.71	263.79	3.91	0.08	2.59	0.05

0+56.3	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
66:59:42	267.09	263.79	3.30	0.07	1.98	0.04
67:29:42	267.77	263.84	3.93	0.08	2.66	0.06
67:59:42	266.94	263.84	3.10	0.07	1.82	0.04
68:29:42	268.17	264.81	3.36	0.07	3.05	0.06
68:59:42	267.28	264.81	2.47	0.05	2.16	0.05
69:29:42	267.80	264.90	2.90	0.06	2.68	0.06
69:59:42	267.11	264.90	2.21	0.05	1.99	0.04
70:29:42	267.53	264.93	2.61	0.05	2.42	0.05
70:59:42	266.81	264.93	1.89	0.04	1.69	0.04
71:29:42	267.11	265.06	2.05	0.04	1.99	0.04
71:59:42	266.61	265.06	1.56	0.03	1.50	0.03
72:29:42	266.84	265.18	1.66	0.04	1.73	0.04
72:59:42	266.46	265.18	1.28	0.03	1.34	0.03
73:29:42	266.94	265.54	1.40	0.03	1.83	0.04
73:59:42	266.53	265.54	0.98	0.02	1.41	0.03
74:29:42	267.23	265.81	1.42	0.03	2.11	0.04
74:59:42	266.87	265.81	1.06	0.02	1.75	0.04
75:29:42	267.32	266.30	1.02	0.02	2.20	0.05
75:59:42	267.13	266.30	0.83	0.02	2.01	0.04
76:29:42	266.90	265.47	1.43	0.03	1.78	0.04
76:59:42	266.50	265.47	1.03	0.02	1.38	0.03
77:29:42	267.75	266.42	1.32	0.03	2.63	0.06
77:59:42	267.25	266.42	0.83	0.02	2.14	0.04
78:59:42	267.30	266.40	0.89	0.02	2.18	0.05
79:59:42	266.62	266.20	0.41	0.01	1.50	0.03
80:59:42	267.87	267.48	0.39	0.01	2.75	0.06
81:59:42	267.79	267.78	0.01	0.00	2.68	0.06
82:59:42	267.58	267.00	0.59	0.01	2.47	0.05
83:59:42	268.21	268.13	0.08	0.00	3.09	0.07
84:59:42	268.37	268.04	0.34	0.01	3.26	0.07
85:59:42	268.09	267.78	0.31	0.01	2.97	0.06
86:59:42	268.45	267.74	0.71	0.01	3.33	0.07
87:59:42	268.68	267.85	0.83	0.02	3.56	0.08
88:59:42	268.00	267.70	0.30	0.01	2.88	0.06
89:59:42	268.12	267.76	0.36	0.01	3.00	0.06
90:59:42	268.12	267.65	0.47	0.01	3.00	0.06
91:59:42	268.60	268.35	0.26	0.01	3.49	0.07
92:59:42	268.19	268.07	0.12	0.00	3.07	0.06
93:59:42	267.98	267.90	0.08	0.00	2.86	0.06
94:59:42	269.36	269.15	0.21	0.00	4.24	0.09
95:59:42	268.50	268.29	0.22	0.00	3.39	0.07
96:59:42	268.94	268.54	0.41	0.01	3.83	0.08
97:59:42	267.95	267.87	0.08	0.00	2.83	0.06
98:59:42	268.30	267.84	0.45	0.01	3.18	0.07
99:59:42	267.84	267.19	0.65	0.01	2.72	0.06
100:59:42	268.00	267.43	0.56	0.01	2.88	0.06

Test Location (m)	**0+56.3**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	2
Well #	4	**Test Type**	Rate of Fall
Start Date of Test	11/1/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	278.9
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	37.6
k_{adj} (cm/s)	2.56E-07	**k_{static} (cm/s)**	2.50E-07





0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	316.52	278.88	37.64	1.00	37.64	1.00
0:00:10	316.49	278.88	37.60	1.00	37.60	1.00
0:00:20	316.51	278.88	37.62	1.00	37.62	1.00
0:00:30	316.47	278.88	37.59	1.00	37.59	1.00
0:00:40	316.45	278.88	37.57	1.00	37.57	1.00
0:00:50	316.45	278.88	37.57	1.00	37.57	1.00
0:01:00	316.47	278.88	37.59	1.00	37.59	1.00
0:01:10	316.45	278.88	37.57	1.00	37.57	1.00
0:01:20	316.43	278.88	37.55	1.00	37.55	1.00
0:01:30	316.42	278.88	37.54	1.00	37.54	1.00
0:01:40	316.42	278.88	37.54	1.00	37.54	1.00
0:01:50	316.40	278.88	37.52	1.00	37.52	1.00
0:02:00	316.40	278.88	37.52	1.00	37.52	1.00
0:02:10	316.38	278.88	37.49	1.00	37.49	1.00
0:02:20	316.36	278.88	37.48	1.00	37.48	1.00
0:02:30	316.34	278.88	37.46	1.00	37.46	1.00
0:02:40	316.31	278.88	37.43	0.99	37.43	0.99
0:02:50	316.31	278.88	37.43	0.99	37.43	0.99
0:03:00	316.31	278.88	37.43	0.99	37.43	0.99
0:03:10	316.29	278.88	37.41	0.99	37.41	0.99
0:03:20	316.28	278.88	37.39	0.99	37.39	0.99
0:03:30	316.28	278.88	37.39	0.99	37.39	0.99
0:03:40	316.22	278.88	37.34	0.99	37.34	0.99
0:03:50	316.23	278.88	37.35	0.99	37.35	0.99
0:04:00	316.20	278.88	37.32	0.99	37.32	0.99
0:04:10	316.20	278.88	37.32	0.99	37.32	0.99
0:04:20	316.20	278.88	37.32	0.99	37.32	0.99
0:04:30	316.18	278.88	37.30	0.99	37.30	0.99
0:04:40	316.17	278.88	37.28	0.99	37.28	0.99
0:04:50	316.15	278.88	37.26	0.99	37.26	0.99
0:05:00	316.12	278.88	37.24	0.99	37.24	0.99
0:05:10	316.12	278.88	37.24	0.99	37.24	0.99
0:05:20	316.09	278.88	37.21	0.99	37.21	0.99
0:05:30	316.09	278.88	37.21	0.99	37.21	0.99
0:05:40	316.08	278.88	37.20	0.99	37.20	0.99
0:05:50	316.06	278.88	37.18	0.99	37.18	0.99
0:06:00	316.04	278.88	37.15	0.99	37.15	0.99
0:06:10	316.00	278.88	37.12	0.99	37.12	0.99
0:06:20	316.00	278.88	37.12	0.99	37.12	0.99
0:06:30	316.00	278.88	37.12	0.99	37.12	0.99
0:06:40	316.00	278.88	37.12	0.99	37.12	0.99
0:06:50	315.97	278.88	37.09	0.99	37.09	0.99
0:07:00	315.95	278.88	37.06	0.98	37.06	0.98
0:07:10	315.95	278.88	37.06	0.98	37.06	0.98
0:07:20	315.92	278.88	37.03	0.98	37.03	0.98
0:07:30	315.89	278.88	37.01	0.98	37.01	0.98
0:07:40	315.88	278.88	37.00	0.98	37.00	0.98
0:07:50	315.86	278.88	36.98	0.98	36.98	0.98

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:00	315.86	278.88	36.98	0.98	36.98	0.98
0:08:10	315.84	278.88	36.96	0.98	36.96	0.98
0:08:20	315.84	278.88	36.96	0.98	36.96	0.98
0:08:30	315.78	278.88	36.90	0.98	36.90	0.98
0:08:40	315.80	278.88	36.92	0.98	36.92	0.98
0:08:50	315.78	278.88	36.90	0.98	36.90	0.98
0:09:00	315.78	278.88	36.90	0.98	36.90	0.98
0:09:10	315.75	278.88	36.87	0.98	36.87	0.98
0:09:20	315.75	278.88	36.87	0.98	36.87	0.98
0:09:30	315.75	278.88	36.87	0.98	36.87	0.98
0:09:40	315.72	278.88	36.83	0.98	36.83	0.98
0:09:50	315.70	278.88	36.81	0.98	36.81	0.98
0:10:00	315.70	278.88	36.81	0.98	36.81	0.98
0:10:10	315.70	278.88	36.81	0.98	36.81	0.98
0:10:20	315.68	278.88	36.80	0.98	36.80	0.98
0:10:30	315.68	278.88	36.80	0.98	36.80	0.98
0:10:40	315.64	278.88	36.76	0.98	36.76	0.98
0:10:50	315.66	278.88	36.78	0.98	36.78	0.98
0:11:00	315.63	278.88	36.75	0.98	36.75	0.98
0:11:10	315.61	278.88	36.72	0.98	36.72	0.98
0:11:20	315.58	278.88	36.70	0.98	36.70	0.98
0:11:30	315.58	278.88	36.70	0.98	36.70	0.98
0:11:40	315.57	278.88	36.69	0.97	36.69	0.97
0:11:50	315.57	278.88	36.69	0.97	36.69	0.97
0:12:00	315.57	278.88	36.69	0.97	36.69	0.97
0:12:10	315.53	278.88	36.65	0.97	36.65	0.97
0:12:20	315.52	278.88	36.64	0.97	36.64	0.97
0:12:30	315.50	278.88	36.61	0.97	36.61	0.97
0:12:40	315.50	278.88	36.61	0.97	36.61	0.97
0:12:50	315.49	278.88	36.60	0.97	36.60	0.97
0:13:00	315.46	278.88	36.58	0.97	36.58	0.97
0:13:10	315.44	278.88	36.56	0.97	36.56	0.97
0:13:20	315.46	278.88	36.58	0.97	36.58	0.97
0:13:30	315.46	278.88	36.58	0.97	36.58	0.97
0:13:40	315.43	278.88	36.55	0.97	36.55	0.97
0:13:50	315.43	278.88	36.55	0.97	36.55	0.97
0:14:00	315.41	278.88	36.53	0.97	36.53	0.97
0:14:10	315.39	278.88	36.51	0.97	36.51	0.97
0:14:20	315.39	278.88	36.51	0.97	36.51	0.97
0:14:30	315.38	278.88	36.49	0.97	36.49	0.97
0:14:40	315.35	278.88	36.47	0.97	36.47	0.97
0:14:50	315.38	278.88	36.49	0.97	36.49	0.97
0:15:00	315.35	278.88	36.47	0.97	36.47	0.97
0:15:10	315.33	278.88	36.45	0.97	36.45	0.97
0:15:20	315.33	278.88	36.45	0.97	36.45	0.97
0:15:30	315.32	278.88	36.44	0.97	36.44	0.97
0:15:40	315.30	278.88	36.42	0.97	36.42	0.97
0:15:50	315.30	278.88	36.42	0.97	36.42	0.97

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:00	315.30	278.88	36.42	0.97	36.42	0.97
0:16:10	315.32	278.88	36.44	0.97	36.44	0.97
0:16:20	315.30	278.88	36.42	0.97	36.42	0.97
0:16:30	315.27	278.88	36.38	0.97	36.38	0.97
0:16:40	315.27	278.88	36.38	0.97	36.38	0.97
0:16:50	315.27	278.88	36.38	0.97	36.38	0.97
0:17:00	315.25	278.88	36.36	0.97	36.36	0.97
0:17:10	315.27	278.88	36.38	0.97	36.38	0.97
0:17:20	315.25	278.88	36.36	0.97	36.36	0.97
0:17:30	315.23	278.88	36.35	0.97	36.35	0.97
0:17:40	315.23	278.88	36.35	0.97	36.35	0.97
0:17:50	315.19	278.88	36.31	0.96	36.31	0.96
0:18:00	315.19	278.88	36.31	0.96	36.31	0.96
0:18:10	315.18	278.88	36.30	0.96	36.30	0.96
0:18:20	315.18	278.88	36.30	0.96	36.30	0.96
0:18:30	315.16	278.88	36.27	0.96	36.27	0.96
0:18:40	315.16	278.88	36.27	0.96	36.27	0.96
0:18:50	315.12	278.88	36.24	0.96	36.24	0.96
0:19:00	315.18	278.88	36.30	0.96	36.30	0.96
0:19:10	315.15	278.88	36.26	0.96	36.26	0.96
0:19:20	315.15	278.88	36.26	0.96	36.26	0.96
0:19:30	315.15	278.88	36.26	0.96	36.26	0.96
0:19:40	315.12	278.88	36.24	0.96	36.24	0.96
0:19:50	315.15	278.88	36.26	0.96	36.26	0.96
0:20:00	315.15	278.88	36.26	0.96	36.26	0.96
0:20:10	315.12	278.88	36.24	0.96	36.24	0.96
0:20:20	315.09	278.88	36.21	0.96	36.21	0.96
0:20:30	315.09	278.88	36.21	0.96	36.21	0.96
0:20:40	315.09	278.88	36.21	0.96	36.21	0.96
0:20:50	315.10	278.88	36.22	0.96	36.22	0.96
0:21:00	315.07	278.88	36.19	0.96	36.19	0.96
0:21:10	315.05	278.88	36.17	0.96	36.17	0.96
0:21:20	315.05	278.88	36.17	0.96	36.17	0.96
0:21:30	315.07	278.88	36.19	0.96	36.19	0.96
0:21:40	315.01	278.88	36.13	0.96	36.13	0.96
0:21:50	315.05	278.88	36.17	0.96	36.17	0.96
0:22:00	315.01	278.88	36.13	0.96	36.13	0.96
0:22:10	314.99	278.88	36.11	0.96	36.11	0.96
0:22:20	314.98	278.88	36.10	0.96	36.10	0.96
0:22:30	314.99	278.88	36.11	0.96	36.11	0.96
0:22:40	314.99	278.78	36.21	0.96	36.11	0.96
0:22:50	314.99	278.78	36.21	0.96	36.11	0.96
0:23:00	314.99	278.78	36.21	0.96	36.11	0.96
0:23:10	314.96	278.78	36.18	0.96	36.08	0.96
0:23:40	314.93	278.78	36.15	0.96	36.04	0.96
0:24:10	314.89	278.78	36.11	0.96	36.01	0.96
0:24:40	314.87	278.78	36.09	0.96	35.99	0.96
0:25:10	314.85	278.78	36.07	0.96	35.97	0.96

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:25:40	314.84	278.78	36.06	0.96	35.96	0.96
0:26:10	314.79	278.78	36.01	0.96	35.91	0.95
0:26:40	314.76	278.78	35.98	0.96	35.88	0.95
0:27:10	314.75	278.78	35.97	0.96	35.87	0.95
0:27:40	314.71	278.78	35.93	0.95	35.82	0.95
0:28:10	314.67	278.78	35.89	0.95	35.79	0.95
0:28:40	314.65	278.78	35.87	0.95	35.77	0.95
0:29:10	314.67	278.78	35.89	0.95	35.79	0.95
0:29:40	314.62	278.78	35.84	0.95	35.74	0.95
0:30:10	314.59	278.78	35.81	0.95	35.70	0.95
0:30:40	314.59	278.78	35.81	0.95	35.70	0.95
0:31:10	314.55	278.78	35.77	0.95	35.67	0.95
0:31:40	314.51	278.78	35.73	0.95	35.63	0.95
0:32:10	314.48	278.78	35.70	0.95	35.59	0.95
0:32:40	314.44	278.78	35.66	0.95	35.56	0.94
0:33:10	314.40	278.78	35.62	0.95	35.52	0.94
0:33:40	314.37	278.78	35.59	0.95	35.48	0.94
0:34:10	314.31	278.78	35.53	0.94	35.43	0.94
0:34:40	314.28	278.78	35.50	0.94	35.40	0.94
0:35:10	314.22	278.78	35.44	0.94	35.34	0.94
0:35:40	314.20	278.78	35.42	0.94	35.32	0.94
0:36:10	314.20	278.78	35.42	0.94	35.32	0.94
0:36:40	314.17	278.78	35.39	0.94	35.29	0.94
0:37:10	314.15	278.78	35.37	0.94	35.27	0.94
0:37:40	314.15	278.78	35.37	0.94	35.27	0.94
0:38:10	314.10	278.78	35.32	0.94	35.22	0.94
0:38:40	314.08	278.78	35.30	0.94	35.20	0.94
0:39:10	314.06	278.78	35.28	0.94	35.18	0.93
0:39:40	314.03	278.78	35.25	0.94	35.14	0.93
0:40:10	313.99	278.78	35.21	0.94	35.11	0.93
0:40:40	313.96	278.78	35.18	0.93	35.08	0.93
0:41:10	313.92	278.78	35.14	0.93	35.03	0.93
0:41:40	313.92	278.78	35.14	0.93	35.03	0.93
0:42:10	313.88	278.78	35.10	0.93	35.00	0.93
0:42:40	313.85	278.78	35.07	0.93	34.97	0.93
0:43:10	313.80	278.78	35.02	0.93	34.91	0.93
0:43:40	313.77	278.78	34.99	0.93	34.89	0.93
0:44:10	313.76	278.78	34.98	0.93	34.88	0.93
0:44:40	313.72	278.78	34.94	0.93	34.84	0.93
0:45:10	313.69	278.78	34.91	0.93	34.80	0.92
0:45:40	313.65	278.78	34.87	0.93	34.77	0.92
0:46:10	313.62	278.78	34.84	0.93	34.74	0.92
0:46:40	313.58	278.78	34.80	0.92	34.69	0.92
0:47:10	313.57	278.78	34.79	0.92	34.68	0.92
0:47:40	313.52	278.78	34.74	0.92	34.64	0.92
0:48:10	313.54	278.78	34.76	0.92	34.66	0.92
0:48:40	313.54	278.78	34.76	0.92	34.66	0.92
0:49:10	313.51	278.78	34.73	0.92	34.63	0.92

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:49:40	313.51	278.78	34.73	0.92	34.63	0.92
0:50:10	313.49	278.78	34.71	0.92	34.61	0.92
0:50:40	313.47	278.78	34.69	0.92	34.59	0.92
0:51:10	313.46	278.78	34.68	0.92	34.57	0.92
0:51:40	313.42	278.78	34.64	0.92	34.54	0.92
0:52:10	313.38	278.78	34.60	0.92	34.50	0.92
0:52:40	313.37	278.78	34.59	0.92	34.49	0.92
0:53:10	313.35	278.78	34.57	0.92	34.46	0.92
0:53:40	313.27	278.78	34.49	0.92	34.39	0.91
0:54:10	313.26	278.78	34.48	0.92	34.38	0.91
0:54:40	313.21	278.78	34.43	0.91	34.33	0.91
0:55:10	313.17	278.78	34.39	0.91	34.29	0.91
0:55:40	313.15	278.78	34.37	0.91	34.27	0.91
0:56:10	313.13	278.78	34.35	0.91	34.25	0.91
0:56:40	313.09	278.78	34.31	0.91	34.21	0.91
0:57:10	313.07	278.78	34.29	0.91	34.19	0.91
0:57:40	313.04	278.78	34.26	0.91	34.16	0.91
0:58:10	313.01	278.78	34.23	0.91	34.12	0.91
0:58:40	312.97	278.78	34.19	0.91	34.09	0.91
0:59:10	312.95	278.78	34.17	0.91	34.07	0.91
0:59:40	312.90	278.78	34.12	0.91	34.02	0.90
1:00:10	312.88	278.78	34.09	0.91	33.99	0.90
1:00:40	312.84	278.78	34.06	0.91	33.96	0.90
1:01:10	312.81	278.78	34.03	0.90	33.93	0.90
1:01:40	312.81	278.78	34.03	0.90	33.93	0.90
1:02:10	312.79	278.78	34.01	0.90	33.90	0.90
1:02:40	312.73	278.78	33.95	0.90	33.85	0.90
1:03:10	312.70	278.78	33.92	0.90	33.82	0.90
1:03:40	312.67	278.78	33.89	0.90	33.78	0.90
1:04:10	312.64	278.78	33.86	0.90	33.76	0.90
1:04:40	312.59	278.78	33.81	0.90	33.71	0.90
1:05:10	312.56	278.78	33.78	0.90	33.67	0.89
1:05:40	312.56	278.78	33.78	0.90	33.67	0.89
1:06:10	312.52	278.78	33.74	0.90	33.64	0.89
1:06:40	312.52	278.78	33.74	0.90	33.64	0.89
1:07:10	312.52	278.78	33.74	0.90	33.64	0.89
1:07:40	312.52	278.78	33.74	0.90	33.64	0.89
1:08:10	312.52	278.78	33.74	0.90	33.64	0.89
1:08:40	312.50	278.78	33.72	0.90	33.62	0.89
1:09:10	312.48	278.78	33.70	0.90	33.60	0.89
1:09:40	312.47	278.78	33.69	0.90	33.59	0.89
1:10:10	312.45	278.78	33.67	0.89	33.57	0.89
1:10:40	312.43	278.78	33.64	0.89	33.54	0.89
1:11:10	312.43	278.78	33.64	0.89	33.54	0.89
1:11:40	312.39	278.78	33.61	0.89	33.51	0.89
1:12:10	312.38	278.78	33.60	0.89	33.50	0.89
1:12:40	312.38	278.78	33.60	0.89	33.50	0.89
1:13:10	312.36	278.78	33.58	0.89	33.48	0.89

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:13:40	312.34	278.78	33.56	0.89	33.46	0.89
1:14:10	312.31	278.78	33.53	0.89	33.42	0.89
1:14:40	312.31	278.78	33.53	0.89	33.42	0.89
1:15:10	312.28	278.78	33.50	0.89	33.40	0.89
1:15:40	312.25	278.78	33.47	0.89	33.37	0.89
1:16:10	312.20	278.78	33.41	0.89	33.31	0.89
1:16:40	312.20	278.78	33.41	0.89	33.31	0.89
1:17:10	312.20	278.78	33.41	0.89	33.31	0.89
1:17:40	312.16	278.78	33.38	0.89	33.28	0.88
1:18:10	312.16	278.78	33.38	0.89	33.28	0.88
1:18:40	312.13	278.78	33.35	0.89	33.25	0.88
1:19:10	312.11	278.78	33.33	0.89	33.22	0.88
1:19:40	312.11	278.78	33.33	0.89	33.22	0.88
1:20:10	312.08	278.78	33.29	0.88	33.19	0.88
1:20:40	312.04	278.78	33.26	0.88	33.16	0.88
1:21:10	312.02	278.78	33.24	0.88	33.14	0.88
1:21:40	312.00	278.78	33.22	0.88	33.12	0.88
1:22:10	311.97	278.78	33.18	0.88	33.08	0.88
1:22:40	311.94	278.42	33.52	0.89	33.06	0.88
1:23:10	311.94	278.42	33.52	0.89	33.06	0.88
1:23:40	311.91	278.42	33.49	0.89	33.03	0.88
1:24:10	311.88	278.42	33.45	0.89	32.99	0.88
1:24:40	311.88	278.42	33.45	0.89	32.99	0.88
1:25:10	311.83	278.42	33.41	0.89	32.95	0.88
1:25:40	311.82	278.42	33.40	0.89	32.94	0.88
1:26:10	311.77	278.42	33.34	0.89	32.89	0.87
1:26:40	311.77	278.42	33.34	0.89	32.89	0.87
1:27:10	311.77	278.42	33.34	0.89	32.89	0.87
1:27:40	311.75	278.42	33.32	0.89	32.86	0.87
1:28:10	311.73	278.42	33.31	0.89	32.85	0.87
1:28:40	311.71	278.42	33.29	0.88	32.83	0.87
1:29:10	311.69	278.42	33.27	0.88	32.81	0.87
1:29:40	311.68	278.42	33.26	0.88	32.80	0.87
1:30:10	311.66	278.42	33.23	0.88	32.78	0.87
1:30:40	311.63	278.42	33.20	0.88	32.74	0.87
1:31:10	311.59	278.42	33.17	0.88	32.71	0.87
1:31:40	311.57	278.42	33.15	0.88	32.69	0.87
1:32:10	311.57	278.42	33.15	0.88	32.69	0.87
1:32:40	311.54	278.42	33.11	0.88	32.66	0.87
1:33:10	311.52	278.42	33.09	0.88	32.63	0.87
1:33:40	311.49	278.42	33.07	0.88	32.61	0.87
1:34:10	311.46	278.42	33.04	0.88	32.58	0.87
1:34:40	311.46	278.42	33.04	0.88	32.58	0.87
1:35:10	311.46	278.42	33.04	0.88	32.58	0.87
1:35:40	311.43	278.42	33.00	0.88	32.55	0.86
1:36:10	311.45	278.42	33.03	0.88	32.57	0.87
1:36:40	311.41	278.42	32.98	0.88	32.52	0.86
1:37:10	311.41	278.42	32.98	0.88	32.52	0.86

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:37:40	311.40	278.42	32.97	0.88	32.51	0.86
1:38:10	311.37	278.42	32.95	0.88	32.49	0.86
1:38:40	311.37	278.42	32.95	0.88	32.49	0.86
1:39:10	311.34	278.42	32.92	0.87	32.46	0.86
1:39:40	311.30	278.42	32.87	0.87	32.41	0.86
1:40:10	311.30	278.42	32.87	0.87	32.41	0.86
1:40:40	311.30	278.42	32.87	0.87	32.41	0.86
1:41:10	311.29	278.42	32.86	0.87	32.40	0.86
1:41:40	311.29	278.42	32.86	0.87	32.40	0.86
1:42:10	311.26	278.42	32.84	0.87	32.38	0.86
1:42:40	311.29	278.42	32.86	0.87	32.40	0.86
1:43:10	311.26	278.42	32.84	0.87	32.38	0.86
1:43:40	311.24	278.42	32.82	0.87	32.36	0.86
1:44:10	311.23	278.42	32.81	0.87	32.35	0.86
1:44:40	311.20	278.42	32.77	0.87	32.31	0.86
1:45:10	311.15	278.42	32.73	0.87	32.27	0.86
1:45:40	311.14	278.42	32.72	0.87	32.26	0.86
1:46:10	311.12	278.42	32.70	0.87	32.24	0.86
1:46:40	311.07	278.42	32.64	0.87	32.18	0.86
1:47:10	311.07	278.42	32.64	0.87	32.18	0.86
1:47:40	311.04	278.42	32.62	0.87	32.16	0.85
1:48:10	311.01	278.42	32.59	0.87	32.13	0.85
1:48:40	311.03	278.42	32.61	0.87	32.15	0.85
1:49:10	311.00	278.42	32.58	0.87	32.12	0.85
1:49:40	311.00	278.42	32.58	0.87	32.12	0.85
1:50:10	310.98	278.42	32.56	0.87	32.10	0.85
1:50:40	310.95	278.42	32.52	0.86	32.06	0.85
1:51:10	310.96	278.42	32.53	0.86	32.07	0.85
1:51:40	310.92	278.42	32.50	0.86	32.04	0.85
1:52:10	310.90	278.42	32.48	0.86	32.02	0.85
1:52:40	310.87	278.42	32.44	0.86	31.99	0.85
1:53:10	310.87	278.42	32.44	0.86	31.99	0.85
1:54:10	310.81	278.42	32.39	0.86	31.93	0.85
1:55:10	310.75	278.42	32.32	0.86	31.87	0.85
1:56:10	310.73	278.42	32.30	0.86	31.84	0.85
1:57:10	310.69	278.42	32.27	0.86	31.81	0.85
1:58:10	310.65	278.42	32.23	0.86	31.77	0.84
1:59:10	310.62	278.42	32.19	0.86	31.73	0.84
2:00:10	310.61	278.42	32.18	0.86	31.72	0.84
2:01:10	310.56	278.42	32.14	0.85	31.68	0.84
2:02:10	310.53	278.42	32.11	0.85	31.65	0.84
2:03:10	310.50	278.42	32.07	0.85	31.61	0.84
2:04:10	310.44	278.42	32.02	0.85	31.56	0.84
2:05:10	310.41	278.42	31.98	0.85	31.53	0.84
2:06:10	310.39	278.42	31.96	0.85	31.50	0.84
2:07:10	310.33	278.42	31.91	0.85	31.45	0.84
2:08:10	310.33	278.42	31.91	0.85	31.45	0.84
2:09:10	310.35	278.42	31.93	0.85	31.47	0.84

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:10:10	310.31	278.42	31.89	0.85	31.43	0.84
2:11:10	310.24	278.42	31.82	0.85	31.36	0.83
2:12:10	310.20	278.42	31.78	0.84	31.32	0.83
2:13:10	310.16	278.42	31.73	0.84	31.27	0.83
2:14:10	310.13	278.42	31.71	0.84	31.25	0.83
2:15:10	310.12	278.42	31.70	0.84	31.24	0.83
2:16:10	310.12	278.42	31.70	0.84	31.24	0.83
2:17:10	310.10	278.42	31.68	0.84	31.22	0.83
2:18:10	310.06	278.42	31.63	0.84	31.17	0.83
2:19:10	310.01	278.42	31.59	0.84	31.13	0.83
2:20:10	309.99	278.42	31.57	0.84	31.11	0.83
2:21:10	309.97	278.42	31.55	0.84	31.09	0.83
2:22:10	309.91	278.42	31.49	0.84	31.03	0.82
2:23:10	310.92	278.73	32.19	0.86	32.04	0.85
2:24:10	310.88	278.73	32.15	0.85	32.00	0.85
2:25:10	310.85	278.73	32.12	0.85	31.96	0.85
2:26:10	310.84	278.73	32.11	0.85	31.95	0.85
2:27:10	310.79	278.73	32.06	0.85	31.91	0.85
2:28:10	310.74	278.73	32.01	0.85	31.85	0.85
2:29:10	310.68	278.73	31.95	0.85	31.80	0.84
2:30:10	310.64	278.73	31.91	0.85	31.76	0.84
2:31:10	310.58	278.73	31.85	0.85	31.70	0.84
2:32:10	310.51	278.73	31.78	0.84	31.62	0.84
2:33:10	310.44	278.73	31.71	0.84	31.56	0.84
2:34:10	310.40	278.73	31.67	0.84	31.51	0.84
2:35:10	310.39	278.73	31.66	0.84	31.50	0.84
2:36:10	310.34	278.73	31.61	0.84	31.46	0.84
2:37:10	310.36	278.73	31.63	0.84	31.48	0.84
2:38:10	310.33	278.73	31.60	0.84	31.45	0.84
2:39:10	310.28	278.73	31.55	0.84	31.39	0.83
2:40:10	310.22	278.73	31.49	0.84	31.34	0.83
2:41:10	310.22	278.73	31.49	0.84	31.34	0.83
2:42:10	310.20	278.73	31.47	0.84	31.32	0.83
2:43:10	310.11	278.73	31.38	0.83	31.23	0.83
2:44:10	310.06	278.73	31.33	0.83	31.17	0.83
2:45:10	309.99	278.73	31.26	0.83	31.11	0.83
2:46:10	309.97	278.73	31.24	0.83	31.09	0.83
2:47:10	309.94	278.73	31.21	0.83	31.05	0.83
2:48:10	309.95	278.73	31.22	0.83	31.07	0.83
2:49:10	309.94	278.73	31.21	0.83	31.05	0.83
2:50:10	309.94	278.73	31.21	0.83	31.05	0.83
2:51:10	309.88	278.73	31.15	0.83	31.00	0.82
2:52:10	309.84	278.73	31.11	0.83	30.96	0.82
2:53:10	309.77	278.73	31.04	0.82	30.89	0.82
2:54:10	309.70	278.73	30.97	0.82	30.81	0.82
2:55:10	309.64	278.73	30.91	0.82	30.76	0.82
2:56:10	309.60	278.73	30.87	0.82	30.71	0.82
2:57:10	309.57	278.73	30.84	0.82	30.69	0.82

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:58:10	309.54	278.73	30.81	0.82	30.66	0.81
2:59:10	309.50	278.73	30.77	0.82	30.62	0.81
3:00:10	309.49	278.73	30.76	0.82	30.60	0.81
3:01:10	309.41	278.73	30.68	0.82	30.53	0.81
3:02:10	309.36	278.73	30.63	0.81	30.47	0.81
3:03:10	309.32	278.73	30.59	0.81	30.44	0.81
3:04:10	309.26	278.73	30.53	0.81	30.37	0.81
3:05:10	309.20	278.73	30.47	0.81	30.32	0.81
3:06:10	309.13	278.73	30.40	0.81	30.24	0.80
3:07:10	309.10	278.73	30.37	0.81	30.22	0.80
3:08:10	309.07	278.73	30.34	0.81	30.19	0.80
3:09:10	309.04	278.73	30.31	0.81	30.16	0.80
3:10:10	309.00	278.73	30.28	0.80	30.12	0.80
3:11:10	308.95	278.73	30.22	0.80	30.07	0.80
3:12:10	308.93	278.73	30.20	0.80	30.04	0.80
3:13:10	308.90	278.73	30.17	0.80	30.01	0.80
3:14:10	308.86	278.73	30.13	0.80	29.98	0.80
3:15:10	308.82	278.73	30.09	0.80	29.94	0.80
3:16:10	308.80	278.73	30.07	0.80	29.91	0.79
3:17:10	308.75	278.73	30.02	0.80	29.87	0.79
3:18:10	308.71	278.73	29.98	0.80	29.83	0.79
3:19:10	308.65	278.73	29.92	0.80	29.77	0.79
3:20:10	308.59	278.73	29.86	0.79	29.71	0.79
3:21:10	308.55	278.73	29.83	0.79	29.67	0.79
3:22:10	308.50	278.73	29.77	0.79	29.62	0.79
3:23:10	309.48	279.04	30.44	0.81	30.59	0.81
3:24:10	309.42	279.04	30.39	0.81	30.54	0.81
3:25:10	309.36	279.04	30.32	0.81	30.47	0.81
3:26:10	309.32	279.04	30.29	0.80	30.44	0.81
3:27:10	309.32	279.04	30.29	0.80	30.44	0.81
3:28:10	309.32	279.04	30.29	0.80	30.44	0.81
3:29:10	309.28	279.04	30.24	0.80	30.40	0.81
3:30:10	309.25	279.04	30.21	0.80	30.36	0.81
3:31:10	309.18	279.04	30.15	0.80	30.30	0.81
3:32:10	309.12	279.04	30.09	0.80	30.24	0.80
3:33:10	309.10	279.04	30.07	0.80	30.22	0.80
3:34:10	309.07	279.04	30.03	0.80	30.19	0.80
3:35:10	309.02	279.04	29.98	0.80	30.13	0.80
3:36:10	308.98	279.04	29.95	0.80	30.10	0.80
3:37:10	308.94	279.04	29.90	0.79	30.06	0.80
3:38:10	308.93	279.04	29.89	0.79	30.05	0.80
3:39:10	308.94	279.04	29.90	0.79	30.06	0.80
3:40:10	308.91	279.04	29.87	0.79	30.02	0.80
3:41:10	308.88	279.04	29.85	0.79	30.00	0.80
3:42:10	308.88	279.04	29.85	0.79	30.00	0.80
3:43:10	308.85	279.04	29.82	0.79	29.97	0.80
3:44:10	308.80	279.04	29.76	0.79	29.91	0.79
3:45:10	308.76	279.04	29.73	0.79	29.88	0.79

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:46:10	308.79	279.04	29.75	0.79	29.90	0.79
3:47:10	308.76	279.04	29.73	0.79	29.88	0.79
3:48:10	308.71	279.04	29.67	0.79	29.83	0.79
3:49:10	308.68	279.04	29.64	0.79	29.79	0.79
3:50:10	308.65	279.04	29.62	0.79	29.77	0.79
3:51:10	308.64	279.04	29.61	0.79	29.76	0.79
3:52:10	308.60	279.04	29.56	0.79	29.72	0.79
3:53:10	308.57	279.04	29.53	0.78	29.68	0.79
3:54:10	308.54	279.04	29.51	0.78	29.66	0.79
3:55:10	308.48	279.04	29.44	0.78	29.60	0.79
3:56:10	308.48	279.04	29.44	0.78	29.60	0.79
3:57:10	308.42	279.04	29.39	0.78	29.54	0.78
3:58:10	308.37	279.04	29.33	0.78	29.49	0.78
3:59:10	308.34	279.04	29.30	0.78	29.45	0.78
4:00:10	308.31	279.04	29.28	0.78	29.43	0.78
4:01:10	308.29	279.04	29.26	0.78	29.41	0.78
4:02:10	308.24	279.04	29.20	0.78	29.35	0.78
4:03:10	308.23	279.04	29.19	0.78	29.34	0.78
4:04:10	308.20	279.04	29.17	0.78	29.32	0.78
4:05:10	308.15	279.04	29.11	0.77	29.27	0.78
4:06:10	308.12	279.04	29.08	0.77	29.23	0.78
4:07:10	308.06	279.04	29.03	0.77	29.18	0.78
4:08:10	308.06	279.04	29.03	0.77	29.18	0.78
4:09:10	308.06	279.04	29.03	0.77	29.18	0.78
4:10:10	308.01	279.04	28.97	0.77	29.12	0.77
4:11:10	307.97	279.04	28.94	0.77	29.09	0.77
4:12:10	307.92	279.04	28.88	0.77	29.04	0.77
4:13:10	307.84	279.04	28.81	0.77	28.96	0.77
4:14:10	307.78	279.04	28.74	0.76	28.89	0.77
4:15:10	307.74	279.04	28.71	0.76	28.86	0.77
4:16:10	307.67	279.04	28.63	0.76	28.78	0.76
4:17:10	307.61	279.04	28.58	0.76	28.73	0.76
4:18:10	307.56	279.04	28.52	0.76	28.67	0.76
4:19:10	307.55	279.04	28.51	0.76	28.66	0.76
4:20:10	307.49	279.04	28.46	0.76	28.61	0.76
4:21:10	307.47	279.04	28.43	0.76	28.59	0.76
4:22:10	307.45	279.04	28.41	0.75	28.57	0.76
4:23:10	308.46	279.70	28.76	0.76	29.57	0.79
4:24:10	308.38	279.70	28.68	0.76	29.50	0.78
4:25:10	308.35	279.70	28.65	0.76	29.46	0.78
4:26:10	308.31	279.70	28.62	0.76	29.43	0.78
4:27:10	308.32	279.70	28.63	0.76	29.44	0.78
4:28:10	308.35	279.70	28.65	0.76	29.46	0.78
4:29:10	308.32	279.70	28.63	0.76	29.44	0.78
4:30:10	308.29	279.70	28.59	0.76	29.41	0.78
4:31:10	308.27	279.70	28.57	0.76	29.39	0.78
4:32:10	308.24	279.70	28.54	0.76	29.36	0.78
4:33:10	308.20	279.70	28.51	0.76	29.32	0.78

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:34:10	308.16	279.70	28.46	0.76	29.28	0.78
4:35:10	308.12	279.70	28.42	0.76	29.23	0.78
4:36:10	308.07	279.70	28.37	0.75	29.19	0.78
4:37:10	308.02	279.70	28.32	0.75	29.14	0.77
4:38:10	307.95	279.70	28.25	0.75	29.07	0.77
4:39:10	307.92	279.70	28.22	0.75	29.04	0.77
4:40:10	307.90	279.70	28.20	0.75	29.01	0.77
4:41:10	307.90	279.70	28.20	0.75	29.01	0.77
4:42:10	307.88	279.70	28.18	0.75	28.99	0.77
4:43:10	307.88	279.70	28.18	0.75	28.99	0.77
4:44:10	307.82	279.70	28.12	0.75	28.94	0.77
4:45:10	307.79	279.70	28.09	0.75	28.91	0.77
4:46:10	307.73	279.70	28.04	0.74	28.85	0.77
4:47:10	307.72	279.70	28.02	0.74	28.84	0.77
4:48:10	307.72	279.70	28.02	0.74	28.84	0.77
4:49:10	307.68	279.70	27.98	0.74	28.80	0.77
4:50:10	307.67	279.70	27.97	0.74	28.78	0.76
4:51:10	307.65	279.70	27.95	0.74	28.76	0.76
4:52:10	307.65	279.70	27.95	0.74	28.76	0.76
4:53:10	307.62	279.70	27.92	0.74	28.74	0.76
4:54:10	307.59	279.70	27.89	0.74	28.71	0.76
4:55:10	307.57	279.70	27.87	0.74	28.69	0.76
4:56:10	307.56	279.70	27.86	0.74	28.68	0.76
4:57:10	307.56	279.70	27.86	0.74	28.68	0.76
4:58:10	307.54	279.70	27.84	0.74	28.65	0.76
4:59:10	307.50	279.70	27.80	0.74	28.62	0.76
5:00:10	307.50	279.70	27.80	0.74	28.62	0.76
5:01:10	307.54	279.70	27.84	0.74	28.65	0.76
5:02:10	307.52	279.70	27.83	0.74	28.64	0.76
5:03:10	307.48	279.70	27.78	0.74	28.60	0.76
5:04:10	307.43	279.70	27.73	0.74	28.54	0.76
5:05:10	307.37	279.70	27.67	0.74	28.49	0.76
5:06:10	307.36	279.70	27.66	0.73	28.48	0.76
5:07:10	307.32	279.70	27.62	0.73	28.43	0.76
5:08:10	307.36	279.70	27.66	0.73	28.48	0.76
5:09:10	307.36	279.70	27.66	0.73	28.48	0.76
5:10:10	307.37	279.70	27.67	0.74	28.49	0.76
5:11:10	307.36	279.70	27.66	0.73	28.48	0.76
5:12:10	307.32	279.70	27.62	0.73	28.43	0.76
5:13:10	307.34	279.70	27.64	0.73	28.46	0.76
5:14:10	307.37	279.70	27.67	0.74	28.49	0.76
5:15:10	307.37	279.70	27.67	0.74	28.49	0.76
5:16:10	307.31	279.70	27.61	0.73	28.42	0.76
5:17:10	307.27	279.70	27.57	0.73	28.39	0.75
5:18:10	307.23	279.70	27.53	0.73	28.35	0.75
5:19:10	307.17	279.70	27.48	0.73	28.29	0.75
5:20:10	307.12	279.70	27.42	0.73	28.24	0.75
5:21:10	307.09	279.70	27.39	0.73	28.20	0.75

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
5:22:10	307.05	279.70	27.36	0.73	28.17	0.75
5:23:10	307.00	279.44	27.55	0.73	28.12	0.75
5:24:10	306.98	279.44	27.53	0.73	28.09	0.75
5:25:10	306.97	279.44	27.52	0.73	28.08	0.75
5:26:10	306.98	279.44	27.53	0.73	28.09	0.75
5:27:10	307.02	279.44	27.58	0.73	28.14	0.75
5:28:10	307.03	279.44	27.59	0.73	28.15	0.75
5:29:10	307.02	279.44	27.58	0.73	28.14	0.75
5:30:10	306.94	279.44	27.50	0.73	28.06	0.75
5:31:10	306.83	279.44	27.39	0.73	27.95	0.74
5:32:10	306.77	279.44	27.32	0.73	27.89	0.74
5:33:10	306.71	279.44	27.27	0.72	27.83	0.74
5:34:10	306.71	279.44	27.27	0.72	27.83	0.74
5:35:10	306.77	279.44	27.32	0.73	27.89	0.74
5:36:10	306.78	279.44	27.34	0.73	27.90	0.74
5:37:10	306.75	279.44	27.30	0.73	27.86	0.74
5:38:10	306.69	279.44	27.25	0.72	27.81	0.74
5:39:10	306.63	279.44	27.18	0.72	27.74	0.74
5:40:10	306.60	279.44	27.16	0.72	27.72	0.74
5:41:10	306.58	279.44	27.14	0.72	27.70	0.74
5:42:10	306.58	279.44	27.14	0.72	27.70	0.74
5:43:10	306.55	279.44	27.11	0.72	27.67	0.74
5:44:10	306.52	279.44	27.07	0.72	27.63	0.73
5:45:10	306.48	279.44	27.04	0.72	27.60	0.73
5:46:10	306.41	279.44	29.76	0.72	27.52	0.73
5:47:10	306.37	279.44	29.73	0.72	27.49	0.73
5:48:10	306.38	279.44	29.74	0.72	27.50	0.73
5:49:10	306.37	279.44	29.73	0.72	27.49	0.73
5:50:10	306.33	279.44	26.89	0.71	27.45	0.73
5:51:10	306.30	279.44	26.85	0.71	27.41	0.73
5:52:10	306.30	279.44	26.85	0.71	27.41	0.73
5:53:10	306.28	279.44	26.83	0.71	27.39	0.73
6:03:10	306.35	279.44	29.71	0.71	27.47	0.73
6:13:10	305.87	279.44	26.43	0.70	29.79	0.72
6:23:10	305.73	279.24	26.49	0.70	26.84	0.71
6:33:10	305.45	279.24	26.21	0.70	26.57	0.71
6:43:10	305.34	279.24	26.10	0.69	26.46	0.70
6:53:10	305.25	279.24	26.02	0.69	26.37	0.70
7:03:10	304.84	279.24	25.60	0.68	25.96	0.69
7:13:10	304.55	279.24	25.31	0.67	25.67	0.68
7:23:10	304.53	279.09	25.44	0.68	25.65	0.68
7:33:10	304.60	279.09	25.51	0.68	25.71	0.68
7:43:10	304.10	279.09	25.02	0.66	25.22	0.67
7:53:10	304.27	279.09	25.18	0.67	25.39	0.67
8:03:10	303.98	279.09	24.90	0.66	25.10	0.67
8:13:10	303.80	279.09	24.71	0.66	24.91	0.66
8:23:10	303.74	278.98	24.76	0.66	24.86	0.66
8:33:10	303.51	278.98	24.53	0.65	24.63	0.65

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
8:43:10	303.31	278.98	24.33	0.65	24.43	0.65
8:53:10	303.06	278.98	24.08	0.64	24.18	0.64
9:03:10	303.03	278.98	24.05	0.64	24.15	0.64
9:13:10	302.87	278.98	23.88	0.63	23.98	0.64
9:23:10	302.78	278.88	23.89	0.63	23.89	0.63
9:33:10	302.78	278.88	23.89	0.63	23.89	0.63
9:43:10	302.53	278.88	23.64	0.63	23.64	0.63
9:53:10	302.31	278.88	23.42	0.62	23.42	0.62
10:03:10	302.42	278.88	23.53	0.63	23.53	0.63
10:13:10	302.13	278.88	23.25	0.62	23.25	0.62
10:23:10	302.00	278.88	23.12	0.61	23.12	0.61
10:33:10	301.88	278.88	23.00	0.61	23.00	0.61
10:43:10	301.65	278.88	22.77	0.60	22.77	0.60
10:53:10	301.49	278.88	22.61	0.60	22.61	0.60
11:03:10	301.48	278.88	22.60	0.60	22.60	0.60
11:13:10	301.24	278.88	22.36	0.59	22.36	0.59
11:23:10	301.30	278.93	22.36	0.59	22.42	0.60
11:33:10	301.37	278.93	22.44	0.60	22.49	0.60
11:43:10	301.23	278.93	22.30	0.59	22.35	0.59
11:53:10	300.85	278.93	21.91	0.58	21.97	0.58
12:03:10	300.79	278.93	21.86	0.58	21.91	0.58
12:13:10	300.67	278.93	21.74	0.58	21.79	0.58
12:23:10	300.64	278.93	21.71	0.58	21.76	0.58
12:33:10	300.67	278.93	21.74	0.58	21.79	0.58
12:43:10	300.54	278.93	21.61	0.57	21.66	0.58
12:53:10	300.50	278.93	21.56	0.57	21.61	0.57
13:03:10	300.53	278.93	21.60	0.57	21.65	0.58
13:13:10	300.50	278.93	21.56	0.57	21.61	0.57
13:23:10	300.37	278.73	21.64	0.57	21.48	0.57
13:33:10	300.08	278.73	21.35	0.57	21.20	0.56
13:43:10	299.92	278.73	21.19	0.56	21.03	0.56
13:53:10	299.72	278.73	20.99	0.56	20.84	0.55
14:03:10	299.36	278.73	20.63	0.55	20.47	0.54
14:13:10	298.82	278.73	20.09	0.53	19.94	0.53
14:23:10	299.25	278.73	20.52	0.55	20.37	0.54
14:33:10	299.35	278.73	20.62	0.55	20.46	0.54
14:43:10	299.04	278.73	20.31	0.54	20.16	0.54
14:53:10	298.96	278.73	20.23	0.54	20.08	0.53
15:03:10	298.85	278.73	20.12	0.53	19.97	0.53
15:13:10	298.74	278.73	20.01	0.53	19.86	0.53
15:23:10	299.96	279.34	20.62	0.55	21.08	0.56
15:33:10	299.72	279.34	20.38	0.54	20.84	0.55
15:43:10	299.51	279.34	20.17	0.54	20.63	0.55
15:53:10	299.10	279.34	19.76	0.53	20.22	0.54
16:03:10	298.91	279.34	19.57	0.52	20.02	0.53
16:13:10	298.72	279.34	19.38	0.51	19.84	0.53
16:23:10	298.60	279.14	19.46	0.52	19.72	0.52
16:33:10	298.61	279.14	19.47	0.52	19.73	0.52

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
16:43:10	298.44	279.14	19.30	0.51	19.55	0.52
16:53:10	298.18	279.14	19.05	0.51	19.30	0.51
17:03:10	298.26	279.14	19.12	0.51	19.38	0.51
17:13:10	298.18	279.14	19.05	0.51	19.30	0.51
17:23:10	298.02	278.83	19.19	0.51	19.14	0.51
17:33:10	297.79	278.83	18.96	0.50	18.91	0.50
17:43:10	297.54	278.83	18.71	0.50	18.65	0.50
17:53:10	297.45	278.83	18.62	0.49	18.57	0.49
18:03:10	297.37	278.83	18.54	0.49	18.49	0.49
18:13:10	297.32	278.83	18.49	0.49	18.44	0.49
18:23:10	297.07	278.78	18.29	0.49	18.18	0.48
18:33:10	297.01	278.78	18.23	0.48	18.13	0.48
18:43:10	296.89	278.78	18.11	0.48	18.01	0.48
18:53:10	296.56	278.78	17.78	0.47	17.68	0.47
19:03:10	296.33	278.78	17.55	0.47	17.45	0.46
19:13:10	296.39	278.78	17.61	0.47	17.50	0.47
19:23:10	296.45	278.88	17.57	0.47	17.57	0.47
19:33:10	296.51	278.88	17.62	0.47	17.62	0.47
19:43:10	296.31	278.88	17.43	0.46	17.43	0.46
19:53:10	296.35	278.88	17.47	0.46	17.47	0.46
20:03:10	296.39	278.88	17.50	0.47	17.50	0.47
20:13:10	296.41	278.88	17.53	0.47	17.53	0.47
20:23:10	296.17	279.09	17.08	0.45	17.28	0.46
20:33:10	296.00	279.09	16.92	0.45	17.12	0.45
20:43:10	296.11	279.09	17.03	0.45	17.23	0.46
20:53:10	296.08	279.09	16.99	0.45	17.20	0.46
21:03:10	296.08	279.09	16.99	0.45	17.20	0.46
21:13:10	296.08	279.09	16.99	0.45	17.20	0.46
21:23:10	295.80	279.49	16.31	0.43	16.92	0.45
21:33:10	295.85	279.49	16.35	0.43	16.97	0.45
21:43:10	295.94	279.49	16.44	0.44	17.05	0.45
21:53:10	295.86	279.49	16.37	0.43	16.98	0.45
22:03:10	295.72	279.49	16.22	0.43	16.83	0.45
22:13:10	296.16	279.49	16.66	0.44	17.27	0.46
22:23:10	295.00	278.68	16.33	0.43	16.12	0.43
22:33:10	294.81	278.68	16.13	0.43	15.93	0.42
22:43:10	295.00	278.68	16.33	0.43	16.12	0.43
22:53:10	295.11	278.68	16.44	0.44	16.23	0.43
23:03:10	295.17	278.68	16.49	0.44	16.29	0.43
23:13:10	294.92	278.68	16.24	0.43	16.03	0.43
23:23:10	294.84	278.68	16.16	0.43	15.96	0.42
23:33:10	294.89	278.68	16.22	0.43	16.01	0.43
23:43:10	294.89	278.68	16.22	0.43	16.01	0.43
23:53:10	294.77	278.68	16.10	0.43	15.89	0.42
24:03:10	294.58	278.68	15.90	0.42	15.70	0.42
24:13:10	294.45	278.68	15.77	0.42	15.56	0.41
24:23:10	294.50	278.58	15.92	0.42	15.62	0.41
24:33:10	294.38	278.58	15.80	0.42	15.50	0.41

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
24:43:10	294.28	278.58	15.70	0.42	15.40	0.41
24:53:10	294.16	278.58	15.58	0.41	15.28	0.41
25:03:10	294.07	278.58	15.50	0.41	15.19	0.40
25:13:10	293.92	278.58	15.34	0.41	15.04	0.40
25:23:10	293.80	278.12	15.68	0.42	14.92	0.40
25:33:10	293.72	278.12	15.60	0.41	14.84	0.39
25:43:10	293.80	278.12	15.68	0.42	14.92	0.40
25:53:10	293.77	278.12	15.65	0.42	14.88	0.40
26:03:10	293.60	278.12	15.48	0.41	14.72	0.39
26:13:10	293.29	278.12	15.18	0.40	14.41	0.38
26:23:10	294.14	278.63	15.51	0.41	15.26	0.41
26:33:10	293.78	278.63	15.15	0.40	14.89	0.40
26:43:10	293.58	278.63	14.95	0.40	14.70	0.39
26:53:10	293.36	278.63	14.73	0.39	14.48	0.38
27:03:10	293.16	278.63	14.54	0.39	14.28	0.38
27:13:10	292.99	278.63	14.36	0.38	14.11	0.37
27:23:10	293.99	279.14	14.85	0.39	15.10	0.40
27:33:10	293.84	279.14	14.71	0.39	14.96	0.40
27:43:10	293.62	279.14	14.49	0.38	14.74	0.39
27:53:10	293.39	279.14	14.26	0.38	14.51	0.39
28:03:10	293.15	279.14	14.02	0.37	14.27	0.38
28:13:10	293.00	279.14	13.86	0.37	14.12	0.38
28:23:10	292.90	278.83	14.07	0.37	14.02	0.37
28:33:10	292.69	278.83	13.86	0.37	13.81	0.37
28:43:10	292.51	278.83	13.67	0.36	13.62	0.36
28:53:10	292.56	278.83	13.73	0.36	13.68	0.36
29:03:10	292.39	278.83	13.55	0.36	13.50	0.36
29:13:10	292.24	278.83	13.41	0.36	13.36	0.35
29:23:10	293.22	279.44	13.78	0.37	14.34	0.38
29:33:10	293.22	279.44	13.78	0.37	14.34	0.38
29:43:10	293.01	279.44	13.57	0.36	14.13	0.38
29:53:10	292.86	279.44	13.41	0.36	13.97	0.37
30:03:10	292.74	279.44	13.29	0.35	13.85	0.37
30:13:10	292.43	279.44	12.99	0.35	13.55	0.36
30:23:10	292.30	279.14	13.16	0.35	13.42	0.36
30:33:10	292.32	279.14	13.18	0.35	13.44	0.36
30:43:10	292.30	279.14	13.16	0.35	13.42	0.36
30:53:10	291.98	279.14	12.84	0.34	13.10	0.35
31:03:10	291.84	279.14	12.70	0.34	12.96	0.34
31:13:10	291.74	279.14	12.60	0.33	12.86	0.34
31:23:10	291.69	279.14	12.56	0.33	12.81	0.34
31:33:10	291.56	279.14	12.43	0.33	12.68	0.34
31:43:10	291.59	279.14	12.45	0.33	12.70	0.34
31:53:10	291.65	279.14	12.51	0.33	12.77	0.34
32:03:10	291.44	279.14	12.31	0.33	12.56	0.33
32:13:10	291.40	279.14	12.26	0.33	12.52	0.33
32:23:10	291.40	279.04	12.36	0.33	12.52	0.33
32:33:10	291.37	279.04	12.33	0.33	12.48	0.33

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
32:43:10	291.51	279.04	12.47	0.33	12.63	0.34
32:53:10	291.42	279.04	12.38	0.33	12.54	0.33
33:03:10	291.33	279.04	12.30	0.33	12.45	0.33
33:13:10	291.17	279.04	12.13	0.32	12.29	0.33
33:23:10	291.04	278.93	12.10	0.32	12.15	0.32
33:33:10	290.97	278.93	12.04	0.32	12.09	0.32
33:43:10	290.97	278.93	12.04	0.32	12.09	0.32
33:53:10	290.88	278.93	11.95	0.32	12.00	0.32
34:03:10	290.88	278.93	11.95	0.32	12.00	0.32
34:13:10	290.84	278.93	11.91	0.32	11.96	0.32
34:23:10	290.84	278.83	12.01	0.32	11.96	0.32
34:33:10	290.80	278.83	11.96	0.32	11.91	0.32
34:43:10	290.61	278.83	11.78	0.31	11.73	0.31
34:53:10	290.50	278.83	11.67	0.31	11.62	0.31
35:03:10	290.41	278.83	11.58	0.31	11.53	0.31
35:13:10	290.36	278.83	11.53	0.31	11.47	0.30
35:23:10	290.27	278.68	11.59	0.31	11.39	0.30
35:33:10	290.28	278.68	11.60	0.31	11.40	0.30
35:43:10	290.25	278.68	11.57	0.31	11.37	0.30
35:53:10	290.08	278.68	11.40	0.30	11.20	0.30
36:03:10	289.96	278.68	11.28	0.30	11.08	0.29
36:13:10	289.94	278.68	11.26	0.30	11.06	0.29
36:23:10	289.93	278.58	11.35	0.30	11.05	0.29
36:33:10	289.80	278.58	11.22	0.30	10.92	0.29
36:43:10	289.57	278.58	10.99	0.29	10.69	0.28
36:53:10	289.62	278.58	11.05	0.29	10.74	0.29
37:03:10	289.67	278.58	11.09	0.29	10.78	0.29
37:13:10	289.66	278.58	11.08	0.29	10.77	0.29
37:23:10	290.51	278.98	11.53	0.31	11.63	0.31
37:33:10	290.45	278.98	11.46	0.30	11.56	0.31
37:43:10	290.48	278.98	11.49	0.31	11.60	0.31
37:53:10	290.24	278.98	11.25	0.30	11.35	0.30
38:03:10	290.06	278.98	11.08	0.29	11.18	0.30
38:13:10	289.76	278.98	10.77	0.29	10.87	0.29
38:23:10	290.61	279.44	11.17	0.30	11.73	0.31
38:33:10	290.38	279.44	10.94	0.29	11.50	0.31
38:43:10	290.07	279.44	10.63	0.28	11.19	0.30
38:53:10	289.69	279.44	10.25	0.27	10.81	0.29
39:03:10	289.63	279.44	10.19	0.27	10.75	0.29
39:13:10	289.59	279.44	10.15	0.27	10.71	0.28
39:23:10	289.43	278.98	10.44	0.28	10.54	0.28
39:33:10	289.26	278.98	10.28	0.27	10.38	0.28
39:43:10	289.10	278.98	10.11	0.27	10.22	0.27
39:53:10	289.01	278.98	10.03	0.27	10.13	0.27
40:03:10	289.01	278.98	10.03	0.27	10.13	0.27
40:13:10	288.84	278.98	9.86	0.26	9.96	0.26
40:23:10	289.65	279.49	10.15	0.27	10.76	0.29
40:33:10	289.58	279.49	10.09	0.27	10.70	0.28

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
40:43:10	289.47	279.49	9.98	0.27	10.59	0.28
40:53:10	289.28	279.49	9.79	0.26	10.40	0.28
41:03:10	289.22	279.49	9.72	0.26	10.34	0.27
41:13:10	288.98	279.49	9.48	0.25	10.09	0.27
41:23:10	288.98	279.19	9.79	0.26	10.09	0.27
41:33:10	288.80	279.19	9.61	0.26	9.92	0.26
41:43:10	288.55	279.19	9.36	0.25	9.67	0.26
41:53:10	288.49	279.19	9.31	0.25	9.61	0.26
42:03:10	288.33	279.19	9.14	0.24	9.45	0.25
42:13:10	288.35	279.19	9.16	0.24	9.47	0.25
42:23:10	288.17	279.14	9.03	0.24	9.28	0.25
42:33:10	288.26	279.14	9.13	0.24	9.38	0.25
42:43:10	288.28	279.14	9.14	0.24	9.39	0.25
42:53:10	288.24	279.14	9.11	0.24	9.36	0.25
43:03:10	287.86	279.14	8.72	0.23	8.98	0.24
43:13:10	288.08	279.14	8.94	0.24	9.20	0.24
43:23:10	288.08	278.78	9.30	0.25	9.20	0.24
43:33:10	288.07	278.78	9.29	0.25	9.18	0.24
43:43:10	287.99	278.78	9.21	0.24	9.11	0.24
43:53:10	287.96	278.78	9.18	0.24	9.08	0.24
44:03:10	287.85	278.78	9.07	0.24	8.97	0.24
44:13:10	287.66	278.78	8.88	0.24	8.78	0.23
44:23:10	288.47	279.55	8.93	0.24	9.59	0.25
44:33:10	288.45	279.55	8.91	0.24	9.57	0.25
44:43:10	288.34	279.55	8.80	0.23	9.46	0.25
44:53:10	287.98	279.55	8.43	0.22	9.10	0.24
45:03:10	287.95	279.55	8.40	0.22	9.06	0.24
45:13:10	287.95	279.55	8.40	0.22	9.06	0.24
45:23:10	288.06	279.49	8.56	0.23	9.17	0.24
45:33:10	288.00	279.49	8.51	0.23	9.12	0.24
45:43:10	288.02	279.49	8.53	0.23	9.14	0.24
45:53:10	287.78	279.49	8.29	0.22	8.90	0.24
46:03:10	287.75	279.49	8.26	0.22	8.87	0.24
46:13:10	287.80	279.49	8.31	0.22	8.92	0.24
46:23:10	287.53	279.75	7.78	0.21	8.65	0.23
46:33:10	287.59	279.75	7.84	0.21	8.70	0.23
46:43:10	287.70	279.75	7.95	0.21	8.81	0.23
46:53:10	287.95	279.75	8.20	0.22	9.06	0.24
47:03:10	287.93	279.75	8.18	0.22	9.04	0.24
47:13:10	287.80	279.75	8.06	0.21	8.92	0.24
47:23:10	286.85	278.68	8.17	0.22	7.97	0.21
47:33:10	287.09	278.68	8.41	0.22	8.21	0.22
47:43:10	286.96	278.68	8.28	0.22	8.08	0.21
47:53:10	287.12	278.68	8.45	0.22	8.24	0.22
48:03:10	287.05	278.68	8.37	0.22	8.17	0.22
48:13:10	286.95	278.68	8.27	0.22	8.07	0.21
48:23:10	287.71	279.49	8.21	0.22	8.82	0.23
48:33:10	287.66	279.49	8.17	0.22	8.78	0.23

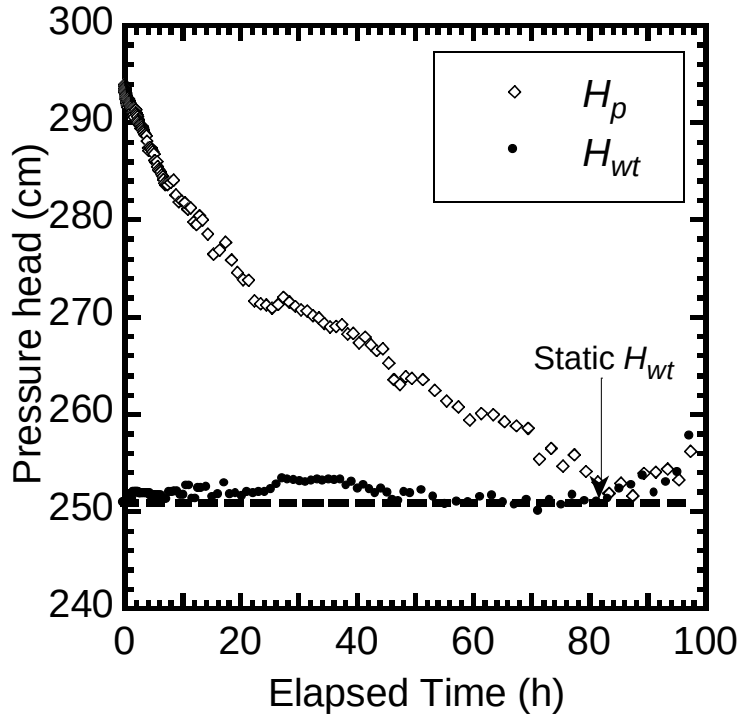
0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
48:43:10	287.55	279.49	8.06	0.21	8.67	0.23
48:53:10	287.61	279.49	8.11	0.22	8.73	0.23
49:03:10	287.70	279.49	8.20	0.22	8.81	0.23
49:13:10	287.45	279.49	7.96	0.21	8.57	0.23
49:23:10	287.55	279.29	8.26	0.22	8.67	0.23
49:33:10	287.36	279.29	8.06	0.21	8.47	0.23
49:43:10	287.16	279.29	7.87	0.21	8.28	0.22
49:53:10	286.97	279.29	7.68	0.20	8.09	0.21
50:03:10	287.06	279.29	7.77	0.21	8.18	0.22
50:13:10	286.86	279.29	7.57	0.20	7.98	0.21
50:23:10	287.03	279.24	7.79	0.21	8.14	0.22
50:33:10	286.88	279.24	7.64	0.20	8.00	0.21
50:43:10	286.77	279.24	7.53	0.20	7.89	0.21
50:53:10	286.83	279.24	7.59	0.20	7.95	0.21
51:03:10	286.77	279.24	7.53	0.20	7.89	0.21
51:13:10	286.72	279.24	7.48	0.20	7.84	0.21
51:23:10	286.70	279.34	7.36	0.20	7.82	0.21
51:33:10	286.69	279.34	7.34	0.20	7.80	0.21
51:43:10	286.74	279.34	7.40	0.20	7.86	0.21
51:53:10	286.63	279.34	7.29	0.19	7.75	0.21
52:03:10	286.63	279.34	7.29	0.19	7.75	0.21
52:13:10	286.65	279.34	7.31	0.19	7.77	0.21
52:23:10	286.72	279.85	6.87	0.18	7.84	0.21
52:33:10	286.70	279.85	6.85	0.18	7.82	0.21
52:43:10	286.53	279.85	6.68	0.18	7.65	0.20
52:53:10	286.52	279.85	6.67	0.18	7.64	0.20
53:03:10	286.53	279.85	6.68	0.18	7.65	0.20
53:13:10	286.56	279.85	6.70	0.18	7.67	0.20
53:23:10	285.63	279.90	5.73	0.15	6.75	0.18
53:33:10	285.81	279.90	5.91	0.16	6.93	0.18
53:43:10	286.38	279.90	6.48	0.17	7.50	0.20
53:53:10	286.73	279.90	6.83	0.18	7.85	0.21
54:03:10	286.80	279.90	6.89	0.18	7.91	0.21
54:13:10	287.01	279.90	7.11	0.19	8.13	0.22
54:23:10	285.21	278.68	6.53	0.17	6.32	0.17
54:33:10	285.26	278.68	6.58	0.17	6.38	0.17
54:43:10	285.39	278.68	6.71	0.18	6.51	0.17
54:53:10	285.61	278.68	6.93	0.18	6.73	0.18
55:03:10	285.75	278.68	7.08	0.19	6.87	0.18
55:13:10	285.87	278.68	7.20	0.19	6.99	0.19
55:23:10	285.05	278.58	6.48	0.17	6.17	0.16
55:33:10	285.16	278.58	6.58	0.17	6.28	0.17
55:43:10	285.35	278.58	6.77	0.18	6.46	0.17
55:53:10	285.49	278.58	6.91	0.18	6.61	0.18
56:03:10	285.72	278.58	7.14	0.19	6.84	0.18
56:13:10	285.87	278.58	7.30	0.19	6.99	0.19
56:23:10	285.05	278.37	6.68	0.18	6.17	0.16
56:33:10	285.17	278.37	6.80	0.18	6.29	0.17

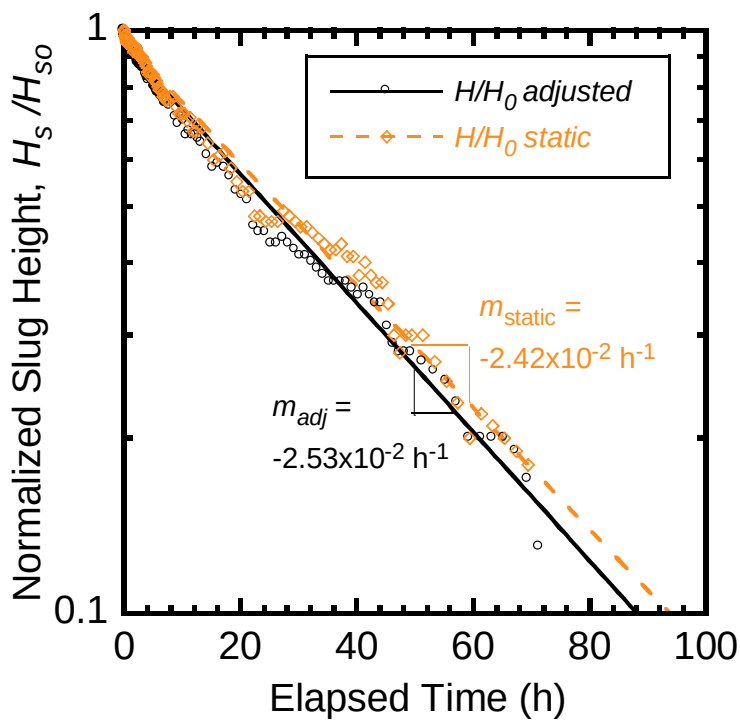
0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
56:43:10	285.26	278.37	6.89	0.18	6.38	0.17
56:53:10	285.51	278.37	7.14	0.19	6.63	0.18
57:03:10	285.67	278.37	7.29	0.19	6.78	0.18
57:13:10	285.84	278.37	7.47	0.20	6.96	0.18
57:23:10	284.90	278.07	6.83	0.18	6.02	0.16
57:33:10	284.94	278.07	6.87	0.18	6.06	0.16
57:43:10	285.10	278.07	7.03	0.19	6.21	0.17
57:53:10	285.30	278.07	7.24	0.19	6.42	0.17
58:03:10	285.51	278.07	7.45	0.20	6.63	0.18
58:13:10	285.52	278.07	7.46	0.20	6.64	0.18
58:23:10	284.59	277.76	6.83	0.18	5.71	0.15
58:33:10	284.49	277.76	6.73	0.18	5.61	0.15
58:43:10	284.69	277.76	6.93	0.18	5.81	0.15
58:53:10	284.78	277.76	7.02	0.19	5.89	0.16
59:03:10	284.81	277.76	7.05	0.19	5.93	0.16
59:13:10	284.90	277.76	7.14	0.19	6.02	0.16
59:23:10	284.06	277.51	6.56	0.17	5.18	0.14
59:33:10	284.23	277.51	6.72	0.18	5.35	0.14
59:43:10	284.40	277.51	6.90	0.18	5.52	0.15
59:53:10	284.55	277.51	7.04	0.19	5.66	0.15
60:03:10	284.62	277.51	7.12	0.19	5.74	0.15
60:13:10	284.77	277.51	7.26	0.19	5.88	0.16
60:23:10	283.92	277.05	6.87	0.18	5.04	0.13
60:33:10	283.91	277.05	6.86	0.18	5.03	0.13
60:43:10	283.98	277.05	6.93	0.18	5.09	0.14
60:53:10	284.03	277.05	6.98	0.19	5.15	0.14
61:03:10	284.16	277.05	7.12	0.19	5.28	0.14
61:13:10	284.22	277.05	7.17	0.19	5.33	0.14
61:23:10	283.34	276.28	7.06	0.19	4.46	0.12
61:33:10	283.43	276.28	7.15	0.19	4.54	0.12
61:43:10	283.48	276.28	7.20	0.19	4.60	0.12
61:53:10	283.50	276.28	7.22	0.19	4.62	0.12
62:03:10	283.50	276.28	7.22	0.19	4.62	0.12
62:13:10	283.45	276.28	7.17	0.19	4.57	0.12
62:23:10	283.41	276.28	7.12	0.19	4.52	0.12
62:33:10	283.41	276.28	7.12	0.19	4.52	0.12
62:43:10	283.43	276.28	7.15	0.19	4.54	0.12
62:53:10	283.50	276.28	7.22	0.19	4.62	0.12
63:03:10	283.32	276.28	7.04	0.19	4.44	0.12
63:13:10	283.23	276.28	6.95	0.18	4.35	0.12
63:23:10	283.20	276.23	6.97	0.19	4.31	0.11
63:33:10	283.10	276.23	6.87	0.18	4.22	0.11
63:43:10	283.09	276.23	6.86	0.18	4.21	0.11
63:53:10	282.96	276.23	6.73	0.18	4.07	0.11
64:03:10	282.76	276.23	6.53	0.17	3.88	0.10
64:13:10	282.78	276.23	6.55	0.17	3.90	0.10
64:23:10	282.74	276.18	6.56	0.17	3.85	0.10
64:33:10	282.70	276.18	6.52	0.17	3.82	0.10

0+56.3	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
64:43:10	282.47	276.18	6.29	0.17	3.59	0.10
64:53:10	282.74	276.18	6.56	0.17	3.85	0.10
65:03:10	282.73	276.18	6.55	0.17	3.84	0.10
65:13:10	282.54	276.18	6.36	0.17	3.66	0.10
65:23:10	282.39	276.23	6.16	0.16	3.50	0.09
65:33:10	282.50	276.23	6.26	0.17	3.61	0.10
65:43:10	282.53	276.23	6.30	0.17	3.65	0.10
65:53:10	282.62	276.23	6.39	0.17	3.73	0.10
66:23:10	282.33	276.28	6.05	0.16	3.45	0.09
66:53:10	282.20	276.28	5.92	0.16	3.32	0.09
67:23:10	282.19	276.44	5.75	0.15	3.31	0.09
67:53:10	282.14	276.44	5.71	0.15	3.26	0.09
68:23:10	282.29	276.64	5.65	0.15	3.40	0.09
68:53:10	282.13	276.64	5.49	0.15	3.25	0.09
69:23:10	282.19	277.05	5.14	0.14	3.31	0.09
69:53:10	282.34	277.05	5.30	0.14	3.46	0.09
70:23:10	281.48	276.33	5.14	0.14	2.59	0.07
70:53:10	281.79	276.33	5.46	0.15	2.91	0.08
71:23:10	281.76	276.49	5.27	0.14	2.88	0.08
71:53:10	281.93	276.49	5.44	0.14	3.04	0.08
72:23:10	281.93	276.23	5.69	0.15	3.04	0.08
72:53:10	281.82	276.23	5.58	0.15	2.93	0.08
73:23:10	281.52	275.67	5.85	0.16	2.64	0.07
73:53:10	280.93	275.67	5.26	0.14	2.05	0.05
74:23:10	281.59	275.98	5.61	0.15	2.70	0.07
74:53:10	281.05	275.98	5.07	0.13	2.17	0.06
75:23:10	281.43	276.38	5.05	0.13	2.55	0.07
75:53:10	280.98	276.38	4.60	0.12	2.10	0.06
76:23:10	281.44	276.84	4.60	0.12	2.56	0.07
76:53:10	281.16	276.84	4.32	0.11	2.28	0.06
77:23:10	281.57	277.45	4.11	0.11	2.68	0.07
77:53:10	281.40	277.45	3.95	0.10	2.52	0.07
78:53:10	280.73	277.10	3.63	0.10	1.85	0.05
79:53:10	280.23	277.30	2.93	0.08	1.34	0.04
80:53:10	280.61	277.10	3.51	0.09	1.73	0.05
81:53:10	280.25	277.25	3.00	0.08	1.37	0.04
82:53:10	280.48	277.40	3.08	0.08	1.60	0.04
83:53:10	279.68	276.38	3.30	0.09	0.80	0.02
84:53:10	279.62	276.49	3.14	0.08	0.74	0.02
85:53:10	279.48	276.38	3.10	0.08	0.60	0.02
86:53:10	279.37	276.38	2.99	0.08	0.49	0.01
87:53:10	279.23	276.38	2.85	0.08	0.35	0.01
88:53:10	278.89	276.18	2.71	0.07	0.01	0.00
89:53:10	279.55	277.10	2.45	0.07	0.67	0.02
90:53:10	279.69	276.64	3.05	0.08	0.81	0.02
91:53:10	279.25	276.33	2.92	0.08	0.37	0.01
92:53:10	280.06	277.00	3.07	0.08	1.18	0.03
93:53:10	279.86	276.95	2.91	0.08	0.97	0.03

0+56.3	**4.5 m**					**Test #2**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
94:53:10	279.73	276.95	2.79	0.07	0.85	0.02
95:53:10	279.86	276.89	2.96	0.08	0.97	0.03
96:53:10	279.54	276.69	2.85	0.08	0.65	0.02
97:53:10	278.74	276.38	2.35	0.06	-0.15	0.00
98:53:10	279.00	276.84	2.16	0.06	0.12	0.00
99:53:10	278.96	277.15	1.81	0.05	0.07	0.00
100:53:10	278.95	277.40	1.54	0.04	0.06	0.00
101:53:10	279.15	277.66	1.50	0.04	0.27	0.01
103:53:10	278.78	277.76	1.02	0.03	-0.10	0.00
105:53:10	278.90	277.96	0.94	0.02	0.02	0.00
107:53:10	279.38	278.22	1.16	0.03	0.49	0.01
109:53:10	279.88	278.83	1.05	0.03	1.00	0.03
111:53:10	278.83	278.07	0.76	0.02	-0.05	0.00
113:53:10	279.34	278.58	0.77	0.02	0.46	0.01
115:53:10	279.68	279.24	0.44	0.01	0.80	0.02
117:53:10	278.99	278.37	0.62	0.02	0.11	0.00
119:53:10	279.28	278.68	0.60	0.02	0.40	0.01

Test Location (m)	**0+56.3**	**Effective Stress on date of test (kPa)**	**8.6**
Depth (m)	4.5	**Test # in well**	3
Well #	4	**Test Type**	Rate of Fall
Start Date of Test	12/8/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	278.9
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	43.1
k_{adj} (cm/s)	2.08E-07	**k_{static} (cm/s)**	1.98E-07





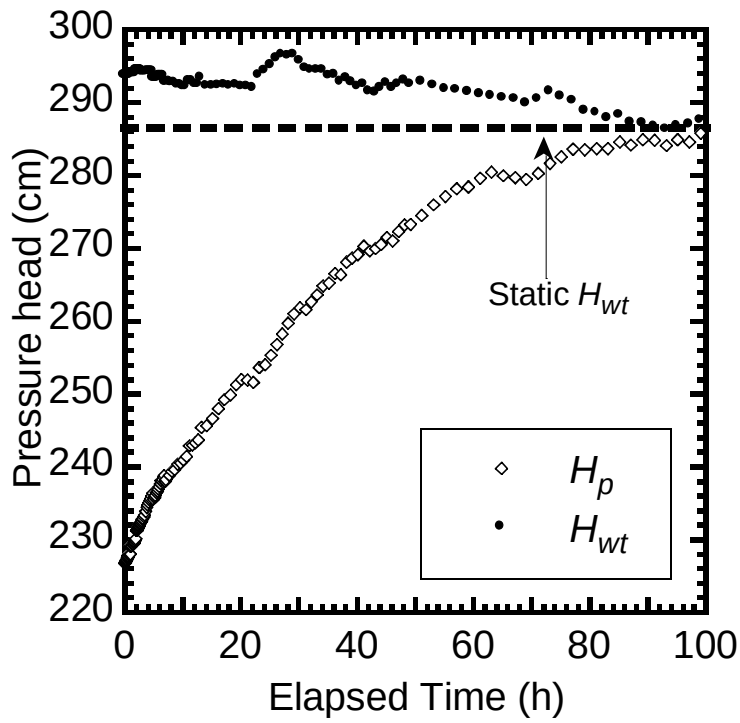
0+56.3	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	293.91	250.84	43.07	1.00	43.07	1.00
0:01:00	293.83	250.84	42.99	1.00	42.99	1.00
0:02:00	293.71	250.84	42.87	1.00	42.87	1.00
0:03:00	293.68	250.84	42.83	0.99	42.83	0.99
0:04:00	293.52	250.84	42.68	0.99	42.68	0.99
0:05:00	293.37	250.84	42.53	0.99	42.53	0.99
0:06:00	293.25	250.84	42.41	0.98	42.41	0.98
0:07:00	293.15	250.84	42.30	0.98	42.30	0.98
0:08:00	293.12	250.84	42.28	0.98	42.28	0.98
0:09:00	293.12	250.84	42.28	0.98	42.28	0.98
0:10:00	293.08	250.84	42.24	0.98	42.24	0.98
0:11:00	293.05	250.84	42.21	0.98	42.21	0.98
0:12:00	292.99	250.84	42.15	0.98	42.15	0.98
0:13:00	292.92	250.84	42.08	0.98	42.08	0.98
0:14:00	292.84	250.84	42.00	0.98	42.00	0.98
0:15:00	292.80	250.84	41.96	0.97	41.96	0.97
0:16:00	292.68	250.84	41.84	0.97	41.84	0.97
0:17:00	292.62	250.84	41.77	0.97	41.77	0.97
0:18:00	292.51	250.84	41.67	0.97	41.67	0.97
0:19:00	292.44	250.84	41.60	0.97	41.60	0.97
0:20:00	292.38	250.84	41.54	0.96	41.54	0.96
0:21:00	292.27	250.84	41.43	0.96	41.43	0.96
0:22:00	292.21	250.84	41.37	0.96	41.37	0.96
0:24:00	292.02	250.84	41.18	0.96	41.18	0.96
0:26:00	291.94	250.84	41.10	0.95	41.10	0.95
0:28:00	291.92	250.84	41.07	0.95	41.07	0.95
0:30:00	291.89	250.84	41.05	0.95	41.05	0.95
0:32:00	291.81	250.84	40.97	0.95	40.97	0.95
0:34:00	291.78	250.84	40.94	0.95	40.94	0.95
0:36:00	291.72	250.84	40.88	0.95	40.88	0.95
0:38:00	291.61	250.84	40.77	0.95	40.77	0.95
0:40:00	292.47	251.20	41.27	0.96	41.63	0.97
0:42:00	292.37	251.20	41.17	0.96	41.52	0.96
0:44:00	292.30	251.20	41.10	0.95	41.46	0.96
0:46:00	292.30	251.20	41.10	0.95	41.46	0.96
0:48:00	292.23	251.20	41.04	0.95	41.39	0.96
0:50:00	292.08	251.20	40.88	0.95	41.23	0.96
0:52:00	292.00	251.20	40.80	0.95	41.16	0.96
0:54:00	292.01	251.20	40.81	0.95	41.17	0.96
0:56:00	292.01	251.20	40.81	0.95	41.17	0.96
0:58:00	291.97	251.20	40.77	0.95	41.13	0.95
1:00:00	291.86	251.20	40.67	0.94	41.02	0.95
1:02:00	291.80	251.20	40.60	0.94	40.96	0.95
1:04:00	291.81	251.20	40.61	0.94	40.97	0.95
1:06:00	291.64	251.20	40.44	0.94	40.80	0.95
1:08:00	291.53	251.20	40.33	0.94	40.69	0.94
1:10:00	291.47	251.20	40.27	0.93	40.63	0.94
1:12:00	291.51	251.20	40.31	0.94	40.67	0.94

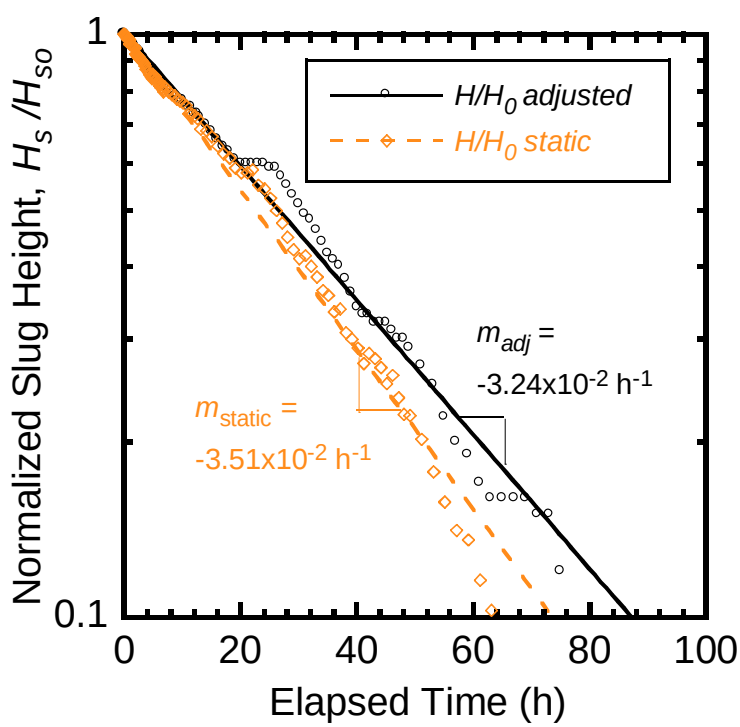
0+56.3	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:14:00	291.40	251.20	40.20	0.93	40.56	0.94
1:16:00	291.28	251.20	40.08	0.93	40.44	0.94
1:18:00	291.31	251.20	40.11	0.93	40.47	0.94
1:20:00	291.31	251.20	40.11	0.93	40.47	0.94
1:22:00	291.27	251.20	40.07	0.93	40.43	0.94
1:27:00	290.94	251.20	39.74	0.92	40.10	0.93
1:32:00	290.90	251.20	39.70	0.92	40.06	0.93
1:37:00	290.54	251.20	39.34	0.91	39.70	0.92
1:42:00	291.43	251.91	39.52	0.92	40.59	0.94
1:47:00	291.45	251.91	39.54	0.92	40.61	0.94
1:52:00	291.36	251.91	39.45	0.92	40.52	0.94
1:57:00	291.07	251.91	39.16	0.91	40.23	0.93
2:02:00	290.99	251.91	39.08	0.91	40.15	0.93
2:07:00	290.81	251.91	38.89	0.90	39.97	0.93
2:12:00	290.63	251.91	38.72	0.90	39.79	0.92
2:17:00	290.36	251.91	38.44	0.89	39.51	0.92
2:22:00	290.11	251.91	38.19	0.89	39.26	0.91
2:27:00	289.91	251.91	37.99	0.88	39.06	0.91
2:32:00	289.89	251.91	37.98	0.88	39.05	0.91
2:37:00	289.83	251.91	37.92	0.88	38.99	0.91
2:42:00	289.64	251.76	37.88	0.88	38.80	0.90
2:47:00	289.43	251.76	37.67	0.87	38.59	0.90
2:52:00	289.40	251.76	37.64	0.87	38.56	0.90
2:57:00	289.67	251.76	37.91	0.88	38.83	0.90
3:02:00	289.67	251.76	37.91	0.88	38.83	0.90
3:07:00	289.47	251.76	37.71	0.88	38.63	0.90
3:12:00	289.30	251.76	37.54	0.87	38.46	0.89
3:17:00	289.14	251.76	37.38	0.87	38.30	0.89
3:22:00	289.01	251.76	37.25	0.86	38.17	0.89
3:32:00	288.81	251.76	37.05	0.86	37.97	0.88
3:42:00	288.68	251.76	36.92	0.86	37.83	0.88
3:52:00	288.13	251.76	36.37	0.84	37.29	0.87
4:02:00	287.38	251.76	35.62	0.83	36.54	0.85
4:12:00	287.18	251.76	35.42	0.82	36.34	0.84
4:22:00	287.47	251.76	35.71	0.83	36.63	0.85
4:32:00	287.42	251.76	35.66	0.83	36.58	0.85
4:42:00	287.21	251.50	35.70	0.83	36.37	0.84
4:52:00	287.01	251.50	35.51	0.82	36.17	0.84
5:02:00	286.81	251.50	35.31	0.82	35.97	0.84
5:12:00	286.11	251.50	34.61	0.80	35.27	0.82
5:22:00	285.95	251.50	34.45	0.80	35.11	0.82
5:32:00	285.98	251.50	34.47	0.80	35.14	0.82
5:42:00	285.51	251.50	34.01	0.79	34.67	0.81
5:52:00	285.22	251.50	33.72	0.78	34.38	0.80
6:02:00	285.06	251.50	33.56	0.78	34.22	0.79
6:12:00	284.96	251.50	33.46	0.78	34.12	0.79
6:22:00	284.65	251.50	33.15	0.77	33.81	0.79
6:32:00	284.48	251.50	32.98	0.77	33.64	0.78

0+56.3	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
6:42:00	284.16	251.15	33.02	0.77	33.32	0.77
6:52:00	283.83	251.15	32.69	0.76	32.99	0.77
7:02:00	283.60	251.15	32.45	0.75	32.75	0.76
7:12:00	283.66	251.15	32.51	0.75	32.82	0.76
7:22:00	283.60	251.15	32.45	0.75	32.75	0.76
7:52:00	283.89	251.86	32.03	0.74	33.05	0.77
8:22:00	284.09	251.86	32.23	0.75	33.24	0.77
8:52:00	282.57	251.96	30.60	0.71	31.72	0.74
9:22:00	281.84	251.96	29.87	0.69	31.00	0.72
9:52:00	281.97	251.56	30.41	0.71	31.13	0.72
10:22:00	281.76	251.56	30.20	0.70	30.92	0.72
10:52:00	281.12	252.57	28.55	0.66	30.28	0.70
11:22:00	281.26	252.57	28.68	0.67	30.41	0.71
11:52:00	279.81	251.20	28.62	0.66	28.97	0.67
12:22:00	279.54	251.20	28.34	0.66	28.69	0.67
12:52:00	280.44	252.32	28.12	0.65	29.59	0.69
13:22:00	280.03	252.32	27.71	0.64	29.18	0.68
14:22:00	278.54	252.42	26.12	0.61	27.70	0.64
15:22:00	276.53	251.35	25.18	0.58	25.69	0.60
16:22:00	276.96	251.66	25.30	0.59	26.12	0.61
17:22:00	277.70	252.78	24.92	0.58	26.86	0.62
18:22:00	275.89	251.66	24.23	0.56	25.04	0.58
19:22:00	274.58	251.76	22.82	0.53	23.73	0.55
20:22:00	273.87	251.45	22.42	0.52	23.03	0.53
21:22:00	273.80	251.86	21.94	0.51	22.96	0.53
22:22:00	271.68	251.76	19.92	0.46	20.84	0.48
23:22:00	271.38	251.86	19.52	0.45	20.53	0.48
24:22:00	271.28	251.91	19.37	0.45	20.44	0.47
25:22:00	270.94	252.22	18.72	0.43	20.10	0.47
26:22:00	271.30	252.68	18.62	0.43	20.46	0.47
27:22:00	272.05	253.29	18.77	0.44	21.21	0.49
28:22:00	271.55	253.19	18.37	0.43	20.71	0.48
29:22:00	271.13	253.08	18.04	0.42	20.29	0.47
30:22:00	270.77	252.98	17.79	0.41	19.93	0.46
31:22:00	270.67	252.88	17.79	0.41	19.82	0.46
32:22:00	270.14	253.03	17.10	0.40	19.30	0.45
33:22:00	269.94	253.14	16.80	0.39	19.10	0.44
34:22:00	269.36	253.03	16.32	0.38	18.51	0.43
35:22:00	269.01	253.14	15.88	0.37	18.17	0.42
36:22:00	269.05	253.08	15.97	0.37	18.21	0.42
37:22:00	269.22	253.19	16.04	0.37	18.38	0.43
38:22:00	268.30	252.57	15.72	0.37	17.46	0.41
39:22:00	268.32	252.93	15.39	0.36	17.48	0.41
40:22:00	267.34	252.27	15.07	0.35	16.50	0.38
41:22:00	267.98	252.63	15.35	0.36	17.14	0.40
42:22:00	267.21	252.22	14.99	0.35	16.37	0.38
43:22:00	266.59	251.76	14.83	0.34	15.75	0.37
44:22:00	266.72	252.27	14.45	0.34	15.88	0.37

0+56.3	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
45:22:00	265.30	251.81	13.49	0.31	14.46	0.34
46:22:00	263.57	251.10	12.47	0.29	12.73	0.30
47:22:00	263.07	250.99	12.07	0.28	12.22	0.28
48:22:00	263.86	251.86	12.00	0.28	13.02	0.30
49:22:00	263.73	251.76	11.97	0.28	12.89	0.30
51:22:00	263.60	252.06	11.53	0.27	12.75	0.30
53:22:00	262.50	251.40	11.10	0.26	11.66	0.27
55:22:00	261.41	250.69	10.72	0.25	10.57	0.25
57:22:00	260.76	250.89	9.87	0.23	9.92	0.23
59:22:00	259.44	250.84	8.60	0.20	8.60	0.20
61:22:00	260.12	251.35	8.77	0.20	9.28	0.22
63:22:00	259.97	251.50	8.47	0.20	9.13	0.21
65:22:00	259.27	250.84	8.43	0.20	8.43	0.20
67:22:00	258.82	250.54	8.28	0.19	7.98	0.19
69:22:00	258.58	251.10	7.48	0.17	7.74	0.18
71:22:00	255.39	249.97	5.42	0.13	4.55	0.11
73:22:00	256.48	251.10	5.38	0.12	5.64	0.13
75:22:00	254.66	250.54	4.13	0.10	3.82	0.09
77:22:00	255.84	251.56	4.29	0.10	5.00	0.12
79:22:00	254.15	250.99	3.16	0.07	3.31	0.08
81:22:00	253.07	250.94	2.12	0.05	2.23	0.05
83:22:00	251.88	251.25	0.63	0.01	1.04	0.02
85:22:00	252.90	252.27	0.63	0.01	2.06	0.05
87:22:00	251.65	252.63	-0.98	-0.02	0.81	0.02
89:22:00	253.95	253.59	0.36	0.01	3.11	0.07
91:22:00	254.06	251.81	2.25	0.05	3.22	0.07
93:22:00	254.38	252.83	1.55	0.04	3.54	0.08
95:22:00	253.30	253.95	-0.65	-0.02	2.46	0.06
97:22:00	256.22	257.67	-1.46	-0.03	5.38	0.12

Test Location (m)	**0+56.3**	**Effective Stress on date of test (kPa)**	**8.8**
Depth (m)	4.5	**Test # in well**	4
Well #	4	**Test Type**	Rate of Rise
Start Date of Test	4/11/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	286.5
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	66.8/59.7
k_{adj} (cm/s)	2.66E-07	**k_{static} (cm/s)**	2.88E-07



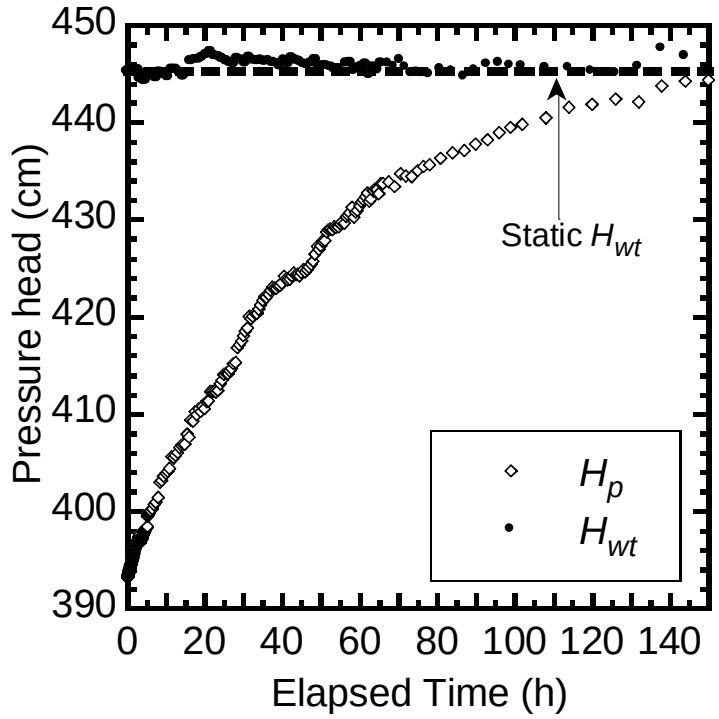


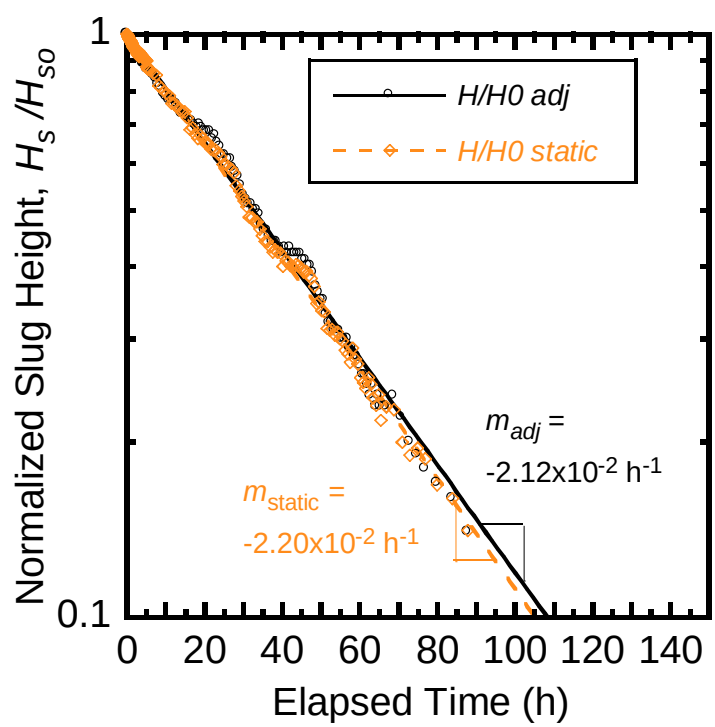
0+56.3	4.5 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	226.83	293.67	66.84	1.00	66.84	1.00
0:03:00	226.87	293.67	66.80	1.00	66.80	1.00
0:06:00	226.83	293.67	66.84	1.00	66.84	1.00
0:09:00	226.89	293.67	66.77	1.00	66.77	1.00
0:12:00	227.07	293.67	66.60	1.00	66.60	1.00
0:15:00	227.16	293.67	66.51	1.00	66.51	1.00
0:18:00	227.25	293.67	66.42	0.99	66.42	0.99
0:21:00	227.33	293.67	66.34	0.99	66.34	0.99
0:24:00	227.32	293.67	66.35	0.99	66.35	0.99
0:27:00	227.45	293.67	66.22	0.99	66.22	0.99
0:30:00	227.56	293.67	66.11	0.99	66.11	0.99
0:33:00	227.65	293.67	66.02	0.99	66.02	0.99
0:36:00	227.82	293.67	65.85	0.99	65.85	0.99
0:39:00	227.94	293.67	65.73	0.98	65.73	0.98
0:42:00	227.95	293.67	65.71	0.98	65.71	0.98
0:45:00	227.94	293.67	65.73	0.98	65.73	0.98
0:48:00	228.01	293.67	65.66	0.98	65.66	0.98
0:51:00	228.09	293.67	65.58	0.98	65.58	0.98
0:54:00	228.05	293.67	65.62	0.98	65.62	0.98
0:57:00	228.07	293.67	65.60	0.98	65.60	0.98
1:00:00	229.07	293.97	64.91	0.97	64.91	0.97
1:03:00	229.20	293.97	64.78	0.97	64.78	0.96
1:06:00	229.16	293.97	64.81	0.97	64.81	0.97
1:09:00	229.24	293.97	64.74	0.97	64.74	0.96
1:14:00	229.22	293.97	64.75	0.97	64.75	0.96
1:19:00	229.42	293.97	64.55	0.97	64.55	0.96
1:24:00	229.44	293.97	64.54	0.97	64.54	0.96
1:29:00	229.42	293.97	64.55	0.97	64.55	0.96
1:34:00	229.56	293.97	64.42	0.96	64.42	0.96
1:39:00	229.71	293.97	64.26	0.96	64.26	0.96
1:44:00	229.82	293.97	64.15	0.96	64.15	0.96
1:49:00	229.98	293.97	63.99	0.96	63.99	0.95
1:54:00	230.12	293.97	63.85	0.96	63.85	0.95
1:59:00	231.28	294.44	63.16	0.95	63.16	0.93
2:04:00	231.33	294.44	63.11	0.94	63.11	0.93
2:09:00	231.47	294.44	62.97	0.94	62.97	0.93
2:14:00	231.54	294.44	62.90	0.94	62.90	0.93
2:19:00	231.73	294.44	62.71	0.94	62.71	0.93
2:24:00	231.86	294.44	62.58	0.94	62.58	0.92
2:29:00	231.88	294.44	62.55	0.94	62.55	0.92
2:34:00	232.08	294.44	62.36	0.93	62.36	0.92
2:39:00	232.25	294.44	62.18	0.93	62.18	0.92
2:44:00	232.29	294.44	62.14	0.93	62.14	0.92
2:49:00	232.41	294.44	62.03	0.93	62.03	0.92
2:54:00	232.56	294.44	61.88	0.93	61.88	0.91
2:59:00	232.81	294.14	61.33	0.92	61.33	0.91
3:04:00	232.84	294.14	61.31	0.92	61.31	0.91
3:09:00	232.90	294.14	61.24	0.92	61.24	0.91

0+56.3	4.5 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:19:00	233.14	294.14	61.00	0.91	61.00	0.91
3:29:00	233.41	294.14	60.74	0.91	60.74	0.90
3:39:00	233.87	294.14	60.27	0.90	60.27	0.89
3:49:00	234.48	294.14	59.67	0.89	59.67	0.89
3:59:00	234.78	294.24	59.46	0.89	59.46	0.88
4:09:00	235.14	294.24	59.10	0.88	59.10	0.88
4:19:00	235.44	294.24	58.80	0.88	58.80	0.87
4:29:00	235.73	294.24	58.51	0.88	58.51	0.87
4:39:00	236.03	294.24	58.22	0.87	58.22	0.86
4:49:00	236.38	294.24	57.86	0.87	57.86	0.86
4:59:00	235.60	293.34	57.74	0.86	57.74	0.87
5:09:00	235.84	293.34	57.50	0.86	57.50	0.87
5:19:00	236.06	293.34	57.28	0.86	57.28	0.86
5:29:00	236.51	293.34	56.83	0.85	56.83	0.86
5:39:00	236.68	293.34	56.66	0.85	56.66	0.85
5:49:00	237.02	293.34	56.33	0.84	56.33	0.85
5:59:00	237.27	293.57	56.31	0.84	56.31	0.84
6:09:00	237.73	293.57	55.84	0.84	55.84	0.84
6:19:00	238.15	293.57	55.42	0.83	55.42	0.83
6:29:00	238.27	293.57	55.30	0.83	55.30	0.83
6:39:00	238.59	293.57	54.98	0.82	54.98	0.82
6:49:00	238.88	293.57	54.69	0.82	54.69	0.82
6:59:00	238.07	292.80	54.72	0.82	54.72	0.83
7:09:00	238.32	292.80	54.47	0.81	54.47	0.83
7:39:00	238.88	292.80	53.92	0.81	53.92	0.82
8:09:00	239.41	292.62	53.21	0.80	53.21	0.81
8:39:00	239.65	292.62	52.97	0.79	52.97	0.81
9:09:00	240.38	292.40	52.02	0.78	52.02	0.80
9:39:00	240.60	292.40	51.80	0.77	51.80	0.79
10:09:00	241.00	292.13	51.14	0.77	51.14	0.79
10:39:00	241.42	292.13	50.71	0.76	50.71	0.78
11:09:00	242.90	292.87	49.96	0.75	49.96	0.76
11:39:00	243.00	292.87	49.87	0.75	49.87	0.76
12:09:00	243.33	292.45	49.12	0.73	49.12	0.75
12:39:00	243.70	292.45	48.75	0.73	48.75	0.75
13:09:00	245.39	293.32	47.93	0.72	47.93	0.72
14:09:00	245.69	292.26	46.57	0.70	46.57	0.72
15:09:00	246.66	292.21	45.55	0.68	45.55	0.70
16:09:00	248.06	292.27	44.21	0.66	44.21	0.68
17:09:00	249.26	292.34	43.08	0.64	43.08	0.66
18:09:00	249.89	292.21	42.32	0.63	42.32	0.66
19:09:00	251.29	292.38	41.09	0.61	41.09	0.63
20:09:00	251.99	292.11	40.12	0.60	40.12	0.62
21:09:00	251.95	292.17	40.22	0.60	40.22	0.62
22:09:00	251.62	291.97	40.35	0.60	40.35	0.63
23:09:00	253.64	293.67	40.03	0.60	40.03	0.60
24:09:00	254.05	294.36	40.31	0.60	40.31	0.59
25:09:00	255.31	295.05	39.74	0.59	39.74	0.57

0+56.3	4.5 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
26:09:00	256.80	296.04	39.23	0.59	39.23	0.55
27:09:00	258.23	296.50	38.26	0.57	38.26	0.53
28:09:00	259.70	296.40	36.70	0.55	36.70	0.51
29:09:00	261.03	296.51	35.49	0.53	35.49	0.49
30:09:00	261.86	295.65	33.79	0.51	33.79	0.48
31:09:00	261.63	294.53	32.90	0.49	32.90	0.48
32:09:00	262.68	294.45	31.78	0.48	31.78	0.46
33:09:00	263.63	294.39	30.76	0.46	30.76	0.45
34:09:00	264.82	294.41	29.59	0.44	29.59	0.43
35:09:00	265.23	293.59	28.37	0.42	28.37	0.43
36:09:00	266.58	293.78	27.20	0.41	27.20	0.41
37:09:00	266.35	292.78	26.43	0.40	26.43	0.41
38:09:00	268.13	293.30	25.18	0.38	25.18	0.38
39:09:00	268.64	292.71	24.07	0.36	24.07	0.37
40:09:00	269.19	292.16	22.96	0.34	22.96	0.37
41:09:00	270.25	292.49	22.23	0.33	22.23	0.35
42:09:00	269.60	291.46	21.85	0.33	21.85	0.36
43:09:00	269.93	291.34	21.41	0.32	21.41	0.36
44:09:00	270.56	292.01	21.45	0.32	21.45	0.35
45:09:00	271.47	292.54	21.07	0.32	21.07	0.33
46:09:00	271.03	291.99	20.96	0.31	20.96	0.34
47:09:00	272.29	292.46	20.17	0.30	20.17	0.32
48:09:00	273.21	292.98	19.78	0.30	19.78	0.31
49:09:00	273.29	292.43	19.15	0.29	19.15	0.30
51:09:00	274.49	292.77	18.28	0.27	18.28	0.29
53:09:00	275.93	292.31	16.38	0.25	16.38	0.27
55:09:00	277.12	291.80	14.68	0.22	14.68	0.25
57:09:00	278.14	291.68	13.54	0.20	13.54	0.23
59:09:00	278.42	291.43	13.01	0.19	13.01	0.23
61:09:00	279.61	291.08	11.48	0.17	11.48	0.21
63:09:00	280.40	290.81	10.41	0.16	10.41	0.20
65:09:00	279.92	290.51	10.58	0.16	10.58	0.21
67:09:00	279.75	290.47	10.72	0.16	10.72	0.21
69:09:00	279.49	289.86	10.37	0.16	10.37	0.21
71:09:00	280.29	290.41	10.12	0.15	10.12	0.20
73:09:00	281.69	291.50	9.81	0.15	9.81	0.18
75:09:00	282.57	290.74	8.16	0.12	8.16	0.17
77:09:00	283.59	290.22	6.63	0.10	6.63	0.15
79:09:00	283.55	288.81	5.26	0.08	5.26	0.15
81:09:00	283.65	288.45	4.80	0.07	4.80	0.15
83:09:00	283.70	287.81	4.11	0.06	4.11	0.15
85:09:00	284.61	288.26	3.65	0.05	3.65	0.14
87:09:00	284.20	287.16	2.95	0.04	2.95	0.14
89:09:00	284.94	287.07	2.13	0.03	2.13	0.13
91:09:00	284.85	286.59	1.74	0.03	1.74	0.13
93:09:00	284.07	286.32	2.25	0.03	2.25	0.14
95:09:00	284.94	286.72	1.78	0.03	1.78	0.13

Test Location (m)	**0+57.0**	**Effective Stress on date of test (kPa)**	**11.0**
Depth (m)	6.0	**Test # in well**	1
Well #	5	**Test Type**	Rate of Rise
Start Date of Test	10/3/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	445.2
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	54.0
k_{adj} (cm/s)	1.74E-07	**k_{static} (cm/s)**	1.80E-07





0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	393.27	445.18	53.97	1.00	54.038	1.000
0:00:10	393.26	445.18	53.97	1.00	54.039	1.000
0:00:20	393.26	445.18	53.97	1.00	54.039	1.000
0:00:30	393.23	445.18	54.01	1.00	54.072	1.001
0:00:40	393.24	445.18	54.00	1.00	54.061	1.000
0:00:50	393.26	445.18	53.97	1.00	54.039	1.000
0:01:00	393.24	445.18	54.00	1.00	54.061	1.000
0:01:10	393.30	445.18	53.94	1.00	54.007	0.999
0:01:20	393.26	445.18	53.97	1.00	54.039	1.000
0:01:30	393.27	445.18	53.96	1.00	54.029	1.000
0:01:40	393.26	445.18	53.97	1.00	54.039	1.000
0:01:50	393.30	445.18	53.94	1.00	54.007	0.999
0:02:00	393.27	445.18	53.96	1.00	54.029	1.000
0:02:10	393.32	445.18	53.92	1.00	53.985	0.999
0:02:20	393.29	445.18	53.94	1.00	54.007	0.999
0:02:30	393.29	445.18	53.94	1.00	54.007	0.999
0:02:40	393.33	445.18	53.91	1.00	53.974	0.999
0:02:50	393.27	445.18	53.96	1.00	54.029	1.000
0:03:00	393.29	445.18	53.94	1.00	54.008	0.999
0:03:10	393.32	445.18	53.92	1.00	53.985	0.999
0:03:20	393.36	445.18	53.88	1.00	53.941	0.998
0:03:30	393.33	445.18	53.91	1.00	53.974	0.999
0:03:40	393.35	445.18	53.89	1.00	53.953	0.998
0:03:50	393.33	445.18	53.91	1.00	53.974	0.999
0:04:00	393.33	445.18	53.91	1.00	53.975	0.999
0:04:10	393.33	445.18	53.91	1.00	53.975	0.999
0:04:20	393.35	445.18	53.89	1.00	53.953	0.998
0:04:30	393.35	445.18	53.89	1.00	53.953	0.998
0:04:40	393.35	445.18	53.89	1.00	53.953	0.998
0:04:50	393.38	445.18	53.86	1.00	53.920	0.998
0:05:00	393.36	445.18	53.88	1.00	53.942	0.998
0:05:10	393.35	445.18	53.89	1.00	53.954	0.998
0:05:20	393.38	445.18	53.86	1.00	53.920	0.998
0:05:30	393.38	445.18	53.86	1.00	53.920	0.998
0:05:40	393.38	445.18	53.86	1.00	53.920	0.998
0:05:50	393.36	445.18	53.88	1.00	53.942	0.998
0:06:00	393.38	445.24	53.92	1.00	53.921	0.998
0:06:10	393.40	445.24	53.90	1.00	53.898	0.997
0:06:20	393.40	445.24	53.90	1.00	53.898	0.997
0:06:30	393.40	445.24	53.90	1.00	53.898	0.997
0:06:40	393.40	445.24	53.90	1.00	53.898	0.997
0:06:50	393.41	445.24	53.89	1.00	53.888	0.997
0:07:00	393.43	445.24	53.87	1.00	53.866	0.997
0:07:10	393.41	445.24	53.89	1.00	53.888	0.997
0:07:20	393.41	445.24	53.89	1.00	53.888	0.997
0:07:30	393.45	445.24	53.84	1.00	53.844	0.996
0:07:40	393.43	445.24	53.87	1.00	53.866	0.997
0:07:50	393.43	445.24	53.87	1.00	53.867	0.997

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:00	393.45	445.24	53.84	1.00	53.844	0.996
0:08:10	393.43	445.24	53.87	1.00	53.867	0.997
0:08:20	393.45	445.24	53.84	1.00	53.844	0.996
0:08:30	393.48	445.24	53.81	1.00	53.811	0.996
0:08:40	393.46	445.24	53.83	1.00	53.833	0.996
0:08:50	393.45	445.24	53.84	1.00	53.844	0.996
0:09:00	393.51	445.24	53.78	1.00	53.779	0.995
0:09:10	393.48	445.24	53.81	1.00	53.811	0.996
0:09:20	393.48	445.24	53.81	1.00	53.811	0.996
0:09:30	393.51	445.24	53.78	1.00	53.779	0.995
0:09:40	393.51	445.24	53.78	1.00	53.779	0.995
0:09:50	393.49	445.24	53.80	1.00	53.800	0.996
0:10:00	393.48	445.24	53.81	1.00	53.811	0.996
0:10:10	393.55	445.24	53.75	1.00	53.746	0.995
0:10:20	393.55	445.24	53.75	1.00	53.746	0.995
0:10:30	393.49	445.24	53.80	1.00	53.801	0.996
0:10:40	393.55	445.24	53.75	1.00	53.746	0.995
0:10:50	393.54	445.24	53.76	1.00	53.757	0.995
0:11:00	393.55	445.24	53.75	1.00	53.746	0.995
0:11:10	393.55	445.24	53.75	1.00	53.746	0.995
0:11:20	393.57	445.24	53.72	1.00	53.724	0.994
0:11:30	393.60	445.24	53.69	0.99	53.692	0.994
0:11:40	393.57	445.24	53.72	1.00	53.724	0.994
0:11:50	393.58	445.24	53.71	1.00	53.713	0.994
0:12:00	393.60	445.24	53.69	0.99	53.692	0.994
0:12:10	393.62	445.24	53.67	0.99	53.669	0.993
0:12:20	393.60	445.24	53.69	0.99	53.692	0.994
0:12:30	393.62	445.24	53.67	0.99	53.669	0.993
0:12:40	393.62	445.24	53.67	0.99	53.669	0.993
0:12:50	393.65	445.24	53.64	0.99	53.637	0.993
0:13:00	393.63	445.24	53.66	0.99	53.659	0.993
0:13:10	393.65	445.24	53.64	0.99	53.637	0.993
0:13:20	393.63	445.24	53.66	0.99	53.659	0.993
0:13:30	393.65	445.24	53.64	0.99	53.637	0.993
0:13:40	393.70	445.24	53.58	0.99	53.582	0.992
0:13:50	393.65	445.24	53.64	0.99	53.637	0.993
0:14:00	393.68	445.24	53.60	0.99	53.604	0.992
0:14:10	393.66	445.24	53.63	0.99	53.626	0.992
0:14:20	393.68	445.24	53.60	0.99	53.604	0.992
0:14:30	393.66	445.24	53.63	0.99	53.626	0.992
0:14:40	393.68	445.24	53.60	0.99	53.604	0.992
0:14:50	393.70	445.24	53.58	0.99	53.582	0.992
0:15:00	393.70	445.24	53.58	0.99	53.582	0.992
0:15:10	393.71	445.24	53.57	0.99	53.571	0.991
0:15:20	393.71	445.24	53.57	0.99	53.571	0.991
0:15:30	393.71	445.24	53.57	0.99	53.571	0.991
0:15:40	393.74	445.24	53.55	0.99	53.550	0.991
0:15:50	393.71	445.24	53.57	0.99	53.571	0.991

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:00	393.73	445.24	53.55	0.99	53.550	0.991
0:16:10	393.73	445.24	53.55	0.99	53.550	0.991
0:16:20	393.71	445.24	53.57	0.99	53.572	0.991
0:16:30	393.73	445.24	53.55	0.99	53.550	0.991
0:16:40	393.76	445.24	53.53	0.99	53.528	0.991
0:16:50	393.77	445.24	53.52	0.99	53.517	0.990
0:17:00	393.79	445.24	53.49	0.99	53.494	0.990
0:17:10	393.77	445.24	53.52	0.99	53.517	0.990
0:17:20	393.79	445.24	53.49	0.99	53.494	0.990
0:17:30	393.76	445.24	53.53	0.99	53.528	0.991
0:17:40	393.77	445.24	53.52	0.99	53.517	0.990
0:17:50	393.77	445.24	53.52	0.99	53.517	0.990
0:18:00	393.79	445.24	53.49	0.99	53.495	0.990
0:18:10	393.79	445.24	53.49	0.99	53.495	0.990
0:18:20	393.79	445.24	53.49	0.99	53.495	0.990
0:18:30	393.79	445.24	53.49	0.99	53.495	0.990
0:18:40	393.84	445.24	53.44	0.99	53.440	0.989
0:18:50	393.79	445.24	53.49	0.99	53.495	0.990
0:19:00	393.82	445.24	53.46	0.99	53.463	0.989
0:19:10	393.82	445.24	53.46	0.99	53.463	0.989
0:19:20	393.82	445.24	53.46	0.99	53.463	0.989
0:19:30	393.84	445.24	53.44	0.99	53.440	0.989
0:19:40	393.84	445.24	53.44	0.99	53.440	0.989
0:19:50	393.82	445.24	53.46	0.99	53.463	0.989
0:20:00	393.87	445.24	53.41	0.99	53.408	0.988
0:20:10	393.85	445.24	53.43	0.99	53.430	0.989
0:20:20	393.85	445.24	53.43	0.99	53.430	0.989
0:20:30	393.85	445.24	53.43	0.99	53.430	0.989
0:20:40	393.87	445.24	53.41	0.99	53.408	0.988
0:21:10	393.84	445.24	53.44	0.99	53.441	0.989
0:21:40	393.84	445.24	53.44	0.99	53.441	0.989
0:22:10	393.85	445.24	53.43	0.99	53.430	0.989
0:22:40	393.90	445.24	53.38	0.99	53.376	0.988
0:23:10	393.88	445.24	53.40	0.99	53.397	0.988
0:23:40	393.85	445.24	53.43	0.99	53.430	0.989
0:24:10	393.90	445.24	53.38	0.99	53.376	0.988
0:24:40	393.90	445.24	53.38	0.99	53.376	0.988
0:25:10	393.93	445.24	53.34	0.99	53.343	0.987
0:25:40	393.93	445.24	53.34	0.99	53.343	0.987
0:26:10	393.97	445.24	53.31	0.99	53.310	0.987
0:26:40	393.99	445.24	53.29	0.99	53.288	0.986
0:27:10	393.95	445.24	53.32	0.99	53.321	0.987
0:27:40	394.01	445.24	53.27	0.99	53.266	0.986
0:28:10	393.99	445.24	53.29	0.99	53.289	0.986
0:28:40	394.04	445.24	53.23	0.99	53.234	0.985
0:29:10	394.04	445.24	53.23	0.99	53.234	0.985
0:29:40	394.09	445.24	53.18	0.99	53.178	0.984
0:30:10	394.04	445.24	53.23	0.99	53.234	0.985

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:30:40	394.05	445.24	53.22	0.99	53.222	0.985
0:31:10	394.09	445.24	53.18	0.99	53.178	0.984
0:31:40	394.09	445.24	53.18	0.99	53.178	0.984
0:32:10	394.10	445.24	53.17	0.99	53.168	0.984
0:32:40	394.10	445.24	53.17	0.99	53.168	0.984
0:33:10	394.12	445.24	53.15	0.98	53.146	0.983
0:33:40	394.14	445.24	53.12	0.98	53.124	0.983
0:34:10	394.14	445.24	53.12	0.98	53.124	0.983
0:34:40	394.15	445.24	53.11	0.98	53.113	0.983
0:35:10	394.15	445.24	53.11	0.98	53.113	0.983
0:35:40	394.15	445.24	53.11	0.98	53.113	0.983
0:36:10	394.19	445.24	53.08	0.98	53.080	0.982
0:36:40	394.18	445.24	53.09	0.98	53.092	0.982
0:37:10	394.21	445.24	53.06	0.98	53.059	0.982
0:37:40	394.23	445.24	53.04	0.98	53.036	0.981
0:38:10	394.26	445.24	53.00	0.98	53.004	0.981
0:38:40	394.24	445.24	53.03	0.98	53.026	0.981
0:39:10	394.24	445.24	53.03	0.98	53.026	0.981
0:39:40	394.29	445.24	52.97	0.98	52.971	0.980
0:40:10	394.27	445.24	52.99	0.98	52.993	0.981
0:40:40	394.27	445.24	52.99	0.98	52.993	0.981
0:41:10	394.27	445.24	52.99	0.98	52.993	0.981
0:41:40	394.31	445.24	52.95	0.98	52.949	0.980
0:42:10	394.29	445.24	52.97	0.98	52.971	0.980
0:42:40	394.34	445.24	52.92	0.98	52.917	0.979
0:43:10	394.34	445.24	52.92	0.98	52.917	0.979
0:43:40	394.32	445.24	52.94	0.98	52.938	0.980
0:44:10	394.34	445.24	52.92	0.98	52.917	0.979
0:44:40	394.38	445.24	52.88	0.98	52.884	0.979
0:45:10	394.34	445.24	52.92	0.98	52.917	0.979
0:45:40	394.35	445.24	52.91	0.98	52.905	0.979
0:46:10	394.40	445.24	52.86	0.98	52.862	0.978
0:46:40	394.41	445.24	52.85	0.98	52.851	0.978
0:47:10	394.45	445.24	52.81	0.98	52.807	0.977
0:47:40	394.45	445.24	52.81	0.98	52.807	0.977
0:48:10	394.48	445.24	52.77	0.98	52.775	0.977
0:48:40	394.45	445.24	52.81	0.98	52.807	0.977
0:49:10	394.46	445.24	52.80	0.98	52.796	0.977
0:49:40	394.48	445.24	52.77	0.98	52.775	0.977
0:50:10	394.46	445.24	52.80	0.98	52.796	0.977
0:50:40	394.48	445.24	52.77	0.98	52.775	0.977
0:51:10	394.51	445.24	52.74	0.98	52.742	0.976
0:51:40	394.53	445.24	52.72	0.98	52.719	0.976
0:52:10	394.51	445.24	52.74	0.98	52.742	0.976
0:52:40	394.51	445.24	52.74	0.98	52.742	0.976
0:53:10	394.53	445.24	52.72	0.98	52.719	0.976
0:53:40	394.56	445.24	52.69	0.98	52.687	0.975
0:54:10	394.56	445.24	52.69	0.98	52.687	0.975

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:54:40	394.58	445.24	52.68	0.98	52.675	0.975
0:55:10	394.60	445.24	52.65	0.98	52.654	0.974
0:55:40	394.62	445.24	52.63	0.98	52.631	0.974
0:56:10	394.60	445.24	52.65	0.98	52.654	0.974
0:56:40	394.62	445.24	52.63	0.98	52.631	0.974
0:57:10	394.63	445.24	52.62	0.97	52.620	0.974
0:57:40	394.63	445.24	52.62	0.97	52.621	0.974
0:58:10	394.63	445.24	52.62	0.97	52.621	0.974
0:58:40	394.65	445.24	52.60	0.97	52.599	0.973
0:59:10	394.68	445.24	52.57	0.97	52.566	0.973
0:59:40	394.71	445.24	52.53	0.97	52.533	0.972
1:00:10	394.68	445.24	52.57	0.97	52.566	0.973
1:00:40	394.71	445.24	52.53	0.97	52.533	0.972
1:01:10	394.73	445.24	52.51	0.97	52.511	0.972
1:01:40	394.74	445.24	52.50	0.97	52.501	0.972
1:02:10	394.79	445.24	52.46	0.97	52.457	0.971
1:02:40	394.79	445.24	52.46	0.97	52.457	0.971
1:03:10	394.80	445.24	52.45	0.97	52.445	0.971
1:03:40	394.82	445.24	52.42	0.97	52.424	0.970
1:04:10	394.84	445.24	52.40	0.97	52.401	0.970
1:04:40	394.82	445.24	52.42	0.97	52.424	0.970
1:05:10	394.84	445.24	52.40	0.97	52.401	0.970
1:05:40	394.85	445.24	52.39	0.97	52.391	0.970
1:06:10	394.85	445.32	52.47	0.97	52.391	0.970
1:06:40	394.85	445.32	52.47	0.97	52.391	0.970
1:07:10	394.88	445.32	52.44	0.97	52.357	0.969
1:07:40	394.88	445.32	52.44	0.97	52.357	0.969
1:08:10	394.90	445.32	52.42	0.97	52.336	0.968
1:08:40	394.88	445.32	52.44	0.97	52.357	0.969
1:09:10	394.92	445.32	52.40	0.97	52.315	0.968
1:09:40	394.92	445.32	52.40	0.97	52.315	0.968
1:10:10	394.92	445.32	52.40	0.97	52.315	0.968
1:10:40	394.93	445.32	52.39	0.97	52.303	0.968
1:11:10	394.93	445.32	52.39	0.97	52.303	0.968
1:11:40	394.96	445.32	52.36	0.97	52.281	0.967
1:12:10	394.97	445.32	52.35	0.97	52.271	0.967
1:12:40	395.01	445.32	52.31	0.97	52.227	0.966
1:13:10	394.99	445.32	52.33	0.97	52.248	0.967
1:13:40	395.04	445.32	52.28	0.97	52.194	0.966
1:14:10	395.05	445.32	52.27	0.97	52.183	0.966
1:14:40	395.05	445.32	52.27	0.97	52.183	0.966
1:15:10	395.05	445.32	52.27	0.97	52.183	0.966
1:15:40	395.09	445.32	52.22	0.97	52.139	0.965
1:16:10	395.12	445.32	52.19	0.97	52.106	0.964
1:16:40	395.12	445.32	52.19	0.97	52.106	0.964
1:17:10	395.15	445.32	52.17	0.97	52.083	0.964
1:17:40	395.10	445.32	52.21	0.97	52.127	0.965
1:18:10	395.10	445.32	52.21	0.97	52.127	0.965

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:18:40	395.15	445.32	52.17	0.97	52.083	0.964
1:19:10	395.15	445.32	52.17	0.97	52.083	0.964
1:19:40	395.21	445.32	52.10	0.97	52.018	0.963
1:20:10	395.19	445.32	52.12	0.97	52.040	0.963
1:20:40	395.19	445.32	52.12	0.97	52.040	0.963
1:21:10	395.21	445.32	52.10	0.97	52.018	0.963
1:21:40	395.23	445.32	52.08	0.96	51.997	0.962
1:22:10	395.23	445.32	52.08	0.96	51.997	0.962
1:22:40	395.27	445.32	52.03	0.96	51.953	0.961
1:23:10	395.29	445.32	52.01	0.96	51.930	0.961
1:23:40	395.31	445.32	51.99	0.96	51.909	0.961
1:24:10	395.32	445.32	51.98	0.96	51.897	0.960
1:24:40	395.35	445.32	51.96	0.96	51.875	0.960
1:25:10	395.38	445.32	51.92	0.96	51.842	0.959
1:25:40	395.40	445.32	51.90	0.96	51.821	0.959
1:26:10	395.40	445.32	51.90	0.96	51.821	0.959
1:26:40	395.40	445.32	51.90	0.96	51.821	0.959
1:27:10	395.46	445.32	51.84	0.96	51.755	0.958
1:27:40	395.45	445.32	51.85	0.96	51.766	0.958
1:28:10	395.48	445.32	51.82	0.96	51.733	0.957
1:28:40	395.46	445.32	51.84	0.96	51.755	0.958
1:29:10	395.49	445.32	51.80	0.96	51.722	0.957
1:29:40	395.51	445.32	51.78	0.96	51.700	0.957
1:30:10	395.51	445.32	51.78	0.96	51.700	0.957
1:30:40	395.57	445.32	51.73	0.96	51.645	0.956
1:31:10	395.55	445.32	51.75	0.96	51.667	0.956
1:31:40	395.58	445.32	51.72	0.96	51.635	0.956
1:32:10	395.58	445.32	51.72	0.96	51.635	0.956
1:32:40	395.60	445.32	51.69	0.96	51.612	0.955
1:33:10	395.62	445.32	51.67	0.96	51.591	0.955
1:33:40	395.62	445.32	51.67	0.96	51.591	0.955
1:34:10	395.62	445.32	51.67	0.96	51.591	0.955
1:34:40	395.65	445.32	51.64	0.96	51.557	0.954
1:35:10	395.63	445.32	51.66	0.96	51.579	0.954
1:35:40	395.68	445.32	51.61	0.96	51.524	0.953
1:36:10	395.71	445.32	51.57	0.96	51.492	0.953
1:36:40	395.70	445.32	51.59	0.96	51.503	0.953
1:37:10	395.66	445.32	51.63	0.96	51.547	0.954
1:37:40	395.76	445.32	51.53	0.95	51.448	0.952
1:38:10	395.74	445.32	51.55	0.96	51.470	0.952
1:38:40	395.80	445.32	51.49	0.95	51.404	0.951
1:39:10	395.82	445.32	51.46	0.95	51.382	0.951
1:39:40	395.80	445.32	51.49	0.95	51.404	0.951
1:40:10	395.85	445.32	51.43	0.95	51.348	0.950
1:40:40	395.85	445.32	51.43	0.95	51.348	0.950
1:41:10	395.84	445.32	51.44	0.95	51.360	0.950
1:41:40	395.85	445.32	51.43	0.95	51.348	0.950
1:42:10	395.90	445.32	51.38	0.95	51.294	0.949

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:42:40	395.90	445.32	51.38	0.95	51.294	0.949
1:43:10	395.96	445.32	51.32	0.95	51.239	0.948
1:43:40	395.94	445.32	51.34	0.95	51.261	0.949
1:44:10	395.96	445.32	51.32	0.95	51.239	0.948
1:44:40	395.97	445.32	51.31	0.95	51.229	0.948
1:45:10	396.01	445.32	51.27	0.95	51.185	0.947
1:45:40	396.04	445.32	51.23	0.95	51.152	0.947
1:46:10	395.99	445.32	51.29	0.95	51.206	0.948
1:46:40	396.02	445.32	51.26	0.95	51.174	0.947
1:47:10	396.02	445.32	51.26	0.95	51.174	0.947
1:47:40	396.04	445.32	51.23	0.95	51.152	0.947
1:48:10	396.09	445.32	51.18	0.95	51.097	0.946
1:48:40	396.07	445.32	51.20	0.95	51.118	0.946
1:49:10	396.09	445.32	51.18	0.95	51.097	0.946
1:49:40	396.10	445.32	51.17	0.95	51.086	0.945
1:50:10	396.10	445.32	51.17	0.95	51.086	0.945
1:50:40	396.09	445.32	51.18	0.95	51.097	0.946
1:51:40	396.15	445.32	51.12	0.95	51.042	0.945
1:52:40	396.15	445.32	51.12	0.95	51.042	0.945
1:53:40	396.18	445.32	51.09	0.95	51.009	0.944
1:54:40	396.18	445.32	51.09	0.95	51.009	0.944
1:55:40	396.23	445.32	51.04	0.95	50.954	0.943
1:56:40	396.21	445.32	51.06	0.95	50.976	0.943
1:57:40	396.23	445.32	51.04	0.95	50.954	0.943
1:58:40	396.23	445.32	51.04	0.95	50.955	0.943
1:59:40	396.26	445.32	51.00	0.94	50.921	0.942
2:00:40	396.27	445.32	50.99	0.94	50.911	0.942
2:01:40	396.32	445.32	50.95	0.94	50.867	0.941
2:02:40	396.29	445.32	50.97	0.94	50.888	0.942
2:03:40	396.37	445.32	50.89	0.94	50.812	0.940
2:04:40	396.38	445.32	50.88	0.94	50.800	0.940
2:05:40	396.46	445.32	50.79	0.94	50.712	0.938
2:06:40	396.48	445.39	50.85	0.94	50.691	0.938
2:07:40	396.52	445.39	50.81	0.94	50.658	0.937
2:08:40	396.52	445.39	50.81	0.94	50.658	0.937
2:09:40	396.52	445.39	50.81	0.94	50.658	0.937
2:10:40	396.55	445.39	50.78	0.94	50.626	0.937
2:11:40	396.57	445.39	50.76	0.94	50.603	0.936
2:12:40	396.57	445.39	50.76	0.94	50.603	0.936
2:13:40	396.62	445.39	50.70	0.94	50.548	0.935
2:14:40	396.63	445.39	50.69	0.94	50.538	0.935
2:15:40	396.63	445.39	50.69	0.94	50.538	0.935
2:16:40	396.66	445.39	50.66	0.94	50.504	0.935
2:17:40	396.63	445.39	50.69	0.94	50.538	0.935
2:18:40	396.63	445.39	50.69	0.94	50.538	0.935
2:19:40	396.65	445.39	50.67	0.94	50.515	0.935
2:20:40	396.72	445.39	50.60	0.94	50.450	0.934
2:21:40	396.69	445.39	50.64	0.94	50.482	0.934

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:22:40	396.69	445.39	50.64	0.94	50.482	0.934
2:23:40	396.72	445.39	50.60	0.94	50.450	0.934
2:24:40	396.74	445.39	50.58	0.94	50.427	0.933
2:25:40	396.74	445.39	50.58	0.94	50.427	0.933
2:26:40	396.79	445.39	50.53	0.94	50.373	0.932
2:27:40	396.79	445.39	50.53	0.94	50.373	0.932
2:28:40	396.80	445.39	50.52	0.94	50.362	0.932
2:29:40	396.85	445.39	50.46	0.93	50.308	0.931
2:30:40	396.89	445.39	50.43	0.93	50.274	0.930
2:31:40	396.91	445.39	50.41	0.93	50.252	0.930
2:32:40	396.94	445.39	50.37	0.93	50.220	0.929
2:33:40	396.96	445.39	50.35	0.93	50.197	0.929
2:34:40	397.02	445.39	50.29	0.93	50.132	0.928
2:35:40	397.01	445.39	50.30	0.93	50.143	0.928
2:36:40	397.10	445.39	50.21	0.93	50.055	0.926
2:37:40	397.10	445.39	50.21	0.93	50.055	0.926
2:38:40	397.08	445.39	50.23	0.93	50.077	0.927
2:39:40	397.10	445.39	50.21	0.93	50.055	0.926
2:40:40	397.15	445.39	50.15	0.93	50.000	0.925
2:41:40	397.16	445.39	50.14	0.93	49.989	0.925
2:42:40	397.16	445.39	50.14	0.93	49.989	0.925
2:43:40	397.19	445.39	50.11	0.93	49.956	0.924
2:44:40	397.19	445.39	50.11	0.93	49.956	0.924
2:45:40	397.21	445.39	50.09	0.93	49.934	0.924
2:46:40	397.23	445.39	50.07	0.93	49.912	0.924
2:47:40	397.24	445.39	50.06	0.93	49.901	0.923
2:48:40	397.27	445.39	50.03	0.93	49.879	0.923
2:49:40	397.30	445.39	50.00	0.93	49.847	0.922
2:50:40	397.30	445.39	50.00	0.93	49.847	0.922
2:51:40	397.35	445.39	49.95	0.93	49.791	0.921
2:52:40	397.35	445.39	49.95	0.93	49.791	0.921
2:53:40	397.38	445.39	49.91	0.92	49.759	0.921
2:54:40	397.40	445.39	49.89	0.92	49.736	0.920
2:55:40	397.40	445.39	49.89	0.92	49.736	0.920
2:56:40	397.41	445.39	49.88	0.92	49.726	0.920
2:57:40	397.43	445.39	49.86	0.92	49.703	0.920
2:58:40	397.50	445.39	49.79	0.92	49.638	0.919
2:59:40	397.53	445.39	49.76	0.92	49.604	0.918
3:00:40	397.53	445.39	49.76	0.92	49.604	0.918
3:01:40	397.57	445.39	49.71	0.92	49.561	0.917
3:02:40	397.55	445.39	49.74	0.92	49.583	0.918
3:03:40	397.62	445.39	49.66	0.92	49.506	0.916
3:04:40	397.63	445.39	49.65	0.92	49.495	0.916
3:05:40	397.67	445.39	49.62	0.92	49.462	0.915
3:06:40	396.73	444.40	49.57	0.92	50.438	0.933
3:07:40	396.69	444.40	49.61	0.92	50.482	0.934
3:08:40	396.74	444.40	49.56	0.92	50.427	0.933
3:09:40	396.76	444.40	49.53	0.92	50.404	0.933

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:10:40	396.77	444.40	49.52	0.92	50.394	0.933
3:11:40	396.79	444.40	49.50	0.92	50.372	0.932
3:12:40	396.81	444.40	49.48	0.92	50.350	0.932
3:13:40	396.84	444.40	49.45	0.92	50.318	0.931
3:14:40	396.88	444.40	49.41	0.92	50.284	0.931
3:15:40	396.90	444.40	49.39	0.92	50.262	0.930
3:16:40	396.95	444.40	49.34	0.91	50.207	0.929
3:17:40	396.96	444.40	49.33	0.91	50.197	0.929
3:18:40	397.01	444.40	49.27	0.91	50.142	0.928
3:19:40	397.03	444.40	49.25	0.91	50.120	0.927
3:20:40	397.04	444.40	49.24	0.91	50.109	0.927
3:21:40	397.08	444.40	49.20	0.91	50.076	0.927
3:22:40	397.10	444.40	49.18	0.91	50.054	0.926
3:23:40	397.12	444.40	49.16	0.91	50.032	0.926
3:24:40	397.12	444.40	49.16	0.91	50.032	0.926
3:25:40	397.13	444.40	49.15	0.91	50.021	0.926
3:26:40	397.16	444.40	49.12	0.91	49.988	0.925
3:27:40	397.13	444.40	49.15	0.91	50.021	0.926
3:28:40	397.16	444.40	49.12	0.91	49.988	0.925
3:29:40	397.15	444.40	49.13	0.91	50.000	0.925
3:30:40	397.18	444.40	49.10	0.91	49.966	0.925
3:31:40	397.15	444.40	49.13	0.91	50.000	0.925
3:32:40	397.18	444.40	49.10	0.91	49.966	0.925
3:33:40	397.18	444.40	49.10	0.91	49.966	0.925
3:34:40	397.23	444.40	49.04	0.91	49.912	0.924
3:35:40	397.20	444.40	49.07	0.91	49.944	0.924
3:36:40	397.23	444.40	49.04	0.91	49.912	0.924
3:37:40	397.26	444.40	49.02	0.91	49.889	0.923
3:38:40	397.27	444.40	49.01	0.91	49.878	0.923
3:39:40	397.29	444.40	48.99	0.91	49.856	0.923
3:40:40	397.32	444.40	48.95	0.91	49.824	0.922
3:41:40	397.32	444.40	48.95	0.91	49.824	0.922
3:42:40	397.32	444.40	48.95	0.91	49.824	0.922
3:43:40	397.35	444.40	48.92	0.91	49.791	0.921
3:44:40	397.35	444.40	48.92	0.91	49.791	0.921
3:45:40	397.37	444.40	48.90	0.91	49.769	0.921
3:46:40	397.37	444.40	48.90	0.91	49.769	0.921
3:47:40	397.40	444.40	48.87	0.91	49.736	0.920
3:48:40	397.44	444.40	48.83	0.90	49.703	0.920
3:49:40	397.46	444.40	48.81	0.90	49.681	0.919
3:50:40	397.49	444.40	48.78	0.90	49.648	0.919
3:51:40	397.54	444.40	48.72	0.90	49.593	0.918
3:52:40	397.56	444.40	48.70	0.90	49.571	0.917
3:53:40	397.57	444.40	48.69	0.90	49.560	0.917
3:54:40	397.59	444.40	48.67	0.90	49.538	0.917
3:55:40	397.59	444.40	48.67	0.90	49.538	0.917
3:56:40	397.65	444.40	48.61	0.90	49.483	0.916
3:57:40	397.62	444.40	48.63	0.90	49.506	0.916

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:58:40	397.65	444.40	48.61	0.90	49.483	0.916
3:59:40	397.65	444.40	48.61	0.90	49.483	0.916
4:00:40	397.66	444.40	48.60	0.90	49.472	0.916
4:01:40	397.73	444.40	48.52	0.90	49.395	0.914
4:02:40	397.71	444.40	48.55	0.90	49.418	0.914
4:03:40	397.71	444.40	48.55	0.90	49.418	0.914
4:04:40	397.73	444.40	48.52	0.90	49.395	0.914
4:05:40	397.73	444.40	48.52	0.90	49.395	0.914
4:06:40	397.77	444.28	48.35	0.90	49.351	0.913
4:07:40	397.74	444.28	48.39	0.90	49.384	0.914
4:08:40	397.76	444.28	48.36	0.90	49.363	0.913
4:09:40	397.76	444.28	48.36	0.90	49.363	0.913
4:10:40	397.82	444.28	48.31	0.90	49.307	0.912
4:11:40	397.82	444.28	48.31	0.90	49.307	0.912
4:12:40	397.83	444.28	48.30	0.89	49.297	0.912
4:13:40	397.87	444.28	48.25	0.89	49.253	0.911
4:14:40	397.85	444.28	48.28	0.89	49.275	0.912
4:15:40	397.88	444.28	48.24	0.89	49.242	0.911
4:16:40	397.88	444.28	48.24	0.89	49.242	0.911
4:17:40	397.90	444.28	48.22	0.89	49.220	0.911
4:18:40	397.90	444.28	48.22	0.89	49.220	0.911
4:19:40	397.90	444.28	48.22	0.89	49.220	0.911
4:20:40	397.91	444.28	48.21	0.89	49.209	0.911
4:21:40	397.98	444.28	48.13	0.89	49.133	0.909
4:22:40	397.98	444.28	48.13	0.89	49.133	0.909
4:23:40	397.99	444.28	48.12	0.89	49.121	0.909
4:24:40	397.98	444.28	48.13	0.89	49.133	0.909
4:25:40	398.02	444.28	48.10	0.89	49.099	0.909
4:26:40	398.04	444.28	48.08	0.89	49.077	0.908
4:27:40	398.07	444.28	48.05	0.89	49.045	0.908
4:28:40	398.07	444.28	48.05	0.89	49.045	0.908
4:29:40	398.10	444.28	48.01	0.89	49.011	0.907
4:30:40	398.12	444.28	47.99	0.89	48.989	0.907
4:31:40	398.12	444.28	47.99	0.89	48.989	0.907
4:32:40	398.21	444.28	47.90	0.89	48.902	0.905
4:33:40	398.21	444.28	47.90	0.89	48.902	0.905
4:34:40	398.21	444.28	47.90	0.89	48.902	0.905
4:35:40	398.18	444.28	47.93	0.89	48.924	0.905
4:36:40	398.26	444.28	47.85	0.89	48.846	0.904
4:37:40	398.26	444.28	47.85	0.89	48.846	0.904
4:38:40	398.26	444.28	47.85	0.89	48.846	0.904
4:39:40	398.26	444.28	47.85	0.89	48.846	0.904
4:40:40	398.27	444.28	47.84	0.89	48.836	0.904
4:41:40	398.27	444.28	47.84	0.89	48.836	0.904
4:42:40	398.26	444.28	47.85	0.89	48.846	0.904
4:43:40	398.27	444.28	47.84	0.89	48.836	0.904
4:44:40	398.27	444.28	47.84	0.89	48.836	0.904
4:45:40	398.29	444.28	47.82	0.89	48.814	0.903

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:46:40	398.27	444.28	47.84	0.89	48.836	0.904
4:47:40	398.29	444.28	47.82	0.89	48.814	0.903
4:48:40	398.27	444.28	47.84	0.89	48.836	0.904
4:49:40	398.30	444.28	47.80	0.89	48.802	0.903
4:50:40	398.32	444.28	47.78	0.89	48.781	0.903
4:51:40	398.30	444.28	47.80	0.89	48.802	0.903
4:52:40	398.29	444.28	47.82	0.89	48.814	0.903
4:53:40	398.35	444.28	47.75	0.88	48.748	0.902
4:54:40	398.34	444.28	47.76	0.88	48.758	0.902
4:55:40	398.32	444.28	47.78	0.89	48.781	0.903
4:56:40	398.35	444.28	47.75	0.88	48.748	0.902
4:57:40	398.35	444.28	47.75	0.88	48.748	0.902
4:58:40	398.35	444.28	47.75	0.88	48.748	0.902
4:59:40	398.34	444.28	47.76	0.88	48.758	0.902
5:00:40	398.39	444.28	47.72	0.88	48.715	0.901
5:01:40	398.39	444.28	47.72	0.88	48.715	0.901
5:02:40	398.44	444.28	47.66	0.88	48.660	0.900
5:03:40	398.43	444.28	47.67	0.88	48.672	0.901
5:04:40	398.43	444.28	47.67	0.88	48.672	0.901
5:05:40	398.49	444.28	47.61	0.88	48.605	0.899
5:06:40	399.49	445.05	47.37	0.88	47.564	0.880
5:07:40	399.52	445.05	47.34	0.88	47.531	0.880
5:08:40	399.53	445.05	47.33	0.88	47.520	0.879
5:09:40	399.56	445.05	47.31	0.88	47.498	0.879
5:10:40	399.56	445.05	47.31	0.88	47.498	0.879
5:11:40	399.56	445.05	47.31	0.88	47.498	0.879
5:12:40	399.64	445.05	47.22	0.87	47.410	0.877
5:13:40	399.64	445.05	47.22	0.87	47.410	0.877
5:14:40	399.64	445.05	47.22	0.87	47.410	0.877
5:15:40	399.71	445.05	47.14	0.87	47.334	0.876
5:16:40	399.72	445.05	47.13	0.87	47.322	0.876
5:17:40	399.72	445.05	47.13	0.87	47.322	0.876
5:18:40	399.72	445.05	47.13	0.87	47.322	0.876
5:19:40	399.78	445.05	47.08	0.87	47.267	0.875
5:20:40	399.80	445.05	47.06	0.87	47.246	0.874
5:21:40	399.80	445.05	47.06	0.87	47.246	0.874
5:22:40	399.81	445.05	47.04	0.87	47.234	0.874
5:23:40	399.80	445.05	47.06	0.87	47.246	0.874
5:24:40	399.83	445.05	47.02	0.87	47.213	0.874
5:25:40	399.88	445.05	46.97	0.87	47.158	0.873
5:26:40	399.86	445.05	46.99	0.87	47.179	0.873
5:27:40	399.91	445.05	46.93	0.87	47.125	0.872
5:28:40	399.89	445.05	46.96	0.87	47.146	0.872
5:29:40	399.88	445.05	46.97	0.87	47.158	0.873
5:30:40	399.89	445.05	46.96	0.87	47.146	0.872
5:31:40	399.89	445.05	46.96	0.87	47.146	0.872
5:32:40	399.89	445.05	46.96	0.87	47.146	0.872
5:33:40	399.84	445.05	47.01	0.87	47.202	0.873

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
5:34:40	399.88	445.05	46.97	0.87	47.158	0.873
5:35:40	399.91	445.05	46.93	0.87	47.125	0.872
5:36:40	399.91	445.05	46.93	0.87	47.125	0.872
5:37:40	399.97	445.05	46.88	0.87	47.070	0.871
5:38:40	399.98	445.05	46.87	0.87	47.059	0.871
5:39:40	399.98	445.05	46.87	0.87	47.059	0.871
5:40:40	400.00	445.05	46.85	0.87	47.037	0.870
5:41:40	399.98	445.05	46.87	0.87	47.059	0.871
5:42:40	399.97	445.05	46.88	0.87	47.070	0.871
5:43:40	399.98	445.05	46.87	0.87	47.059	0.871
5:44:40	400.03	445.05	46.81	0.87	47.004	0.870
5:45:40	400.05	445.05	46.79	0.87	46.982	0.869
5:46:40	400.05	445.05	46.79	0.87	46.982	0.869
5:47:40	400.06	445.05	46.78	0.87	46.971	0.869
5:48:40	400.09	445.05	46.75	0.87	46.938	0.869
5:49:40	400.08	445.05	46.76	0.87	46.949	0.869
5:50:40	400.12	445.05	46.73	0.87	46.916	0.868
6:00:40	400.09	445.05	46.75	0.87	46.938	0.869
6:10:40	400.25	444.83	46.34	0.86	46.773	0.866
6:20:40	400.30	444.83	46.29	0.86	46.719	0.865
6:30:40	400.47	444.83	46.11	0.85	46.543	0.861
6:40:40	400.57	444.83	46.02	0.85	46.444	0.859
6:50:40	400.71	444.83	45.87	0.85	46.302	0.857
7:00:40	400.75	444.83	45.83	0.85	46.258	0.856
7:10:40	400.84	444.55	45.44	0.84	46.159	0.854
7:20:40	400.98	444.55	45.30	0.84	46.017	0.852
7:30:40	401.03	444.55	45.25	0.84	45.962	0.851
7:40:40	401.22	444.55	45.05	0.83	45.764	0.847
7:50:40	401.48	444.55	44.78	0.83	45.500	0.842
8:00:40	401.65	444.55	44.61	0.83	45.325	0.839
8:10:40	402.83	445.15	44.00	0.82	44.096	0.816
8:20:40	403.02	445.15	43.80	0.81	43.899	0.812
8:30:40	403.02	445.15	43.80	0.81	43.899	0.812
8:40:40	403.13	445.15	43.68	0.81	43.778	0.810
8:50:40	403.22	445.15	43.60	0.81	43.690	0.809
9:00:40	403.39	445.15	43.42	0.80	43.514	0.805
9:10:40	403.49	444.89	43.04	0.80	43.405	0.803
9:20:40	403.66	444.89	42.86	0.79	43.229	0.800
9:30:40	403.71	444.89	42.81	0.79	43.175	0.799
9:40:40	403.80	444.89	42.72	0.79	43.087	0.797
9:50:40	403.94	444.89	42.58	0.79	42.944	0.795
10:00:40	403.97	444.89	42.55	0.79	42.911	0.794
10:10:40	404.05	444.68	42.24	0.78	42.823	0.792
10:20:40	404.17	444.68	42.12	0.78	42.703	0.790
10:30:40	404.20	444.68	42.09	0.78	42.670	0.790
10:40:40	404.28	444.68	42.00	0.78	42.582	0.788
10:50:40	404.45	444.68	41.82	0.77	42.406	0.785
11:00:40	404.47	444.68	41.80	0.77	42.385	0.784

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
11:10:40	405.56	445.45	41.48	0.77	41.255	0.763
11:20:40	405.64	445.45	41.39	0.77	41.167	0.762
11:30:40	405.61	445.45	41.42	0.77	41.200	0.762
11:40:40	405.51	445.45	41.53	0.77	41.309	0.764
11:50:40	405.57	445.45	41.47	0.77	41.244	0.763
12:00:40	405.64	445.45	41.39	0.77	41.167	0.762
12:10:40	405.68	445.42	41.32	0.77	41.135	0.761
12:20:40	405.78	445.42	41.21	0.76	41.024	0.759
12:30:40	405.82	445.42	41.17	0.76	40.980	0.758
12:40:40	405.91	445.42	41.08	0.76	40.892	0.757
12:50:40	406.07	445.42	40.92	0.76	40.728	0.754
13:00:40	406.09	445.42	40.89	0.76	40.706	0.753
13:10:40	406.37	445.14	40.31	0.75	40.410	0.748
13:20:40	406.57	445.14	40.10	0.74	40.201	0.744
13:30:40	406.73	445.14	39.94	0.74	40.037	0.741
13:40:40	406.71	445.14	39.96	0.74	40.058	0.741
13:50:40	406.82	445.14	39.85	0.74	39.949	0.739
14:00:40	406.79	445.14	39.88	0.74	39.981	0.740
14:10:40	406.83	444.69	39.36	0.73	39.937	0.739
14:20:40	406.91	444.69	39.28	0.73	39.850	0.737
14:30:40	406.95	444.69	39.23	0.73	39.806	0.737
14:40:40	407.02	444.69	39.17	0.73	39.740	0.735
14:50:40	406.96	444.69	39.22	0.73	39.794	0.736
15:00:40	406.99	444.69	39.20	0.73	39.773	0.736
15:10:40	407.98	445.00	38.49	0.71	38.743	0.717
15:20:40	408.00	445.00	38.47	0.71	38.720	0.717
15:30:40	407.85	445.00	38.62	0.72	38.873	0.719
15:40:40	407.85	445.00	38.62	0.72	38.873	0.719
15:50:40	407.67	445.00	38.81	0.72	39.061	0.723
16:00:40	407.67	445.00	38.81	0.72	39.061	0.723
16:10:40	409.54	446.29	38.22	0.71	37.120	0.687
16:20:40	409.46	446.29	38.29	0.71	37.196	0.688
16:30:40	409.35	446.29	38.42	0.71	37.317	0.691
16:40:40	409.32	446.29	38.45	0.71	37.350	0.691
16:50:40	409.32	446.29	38.45	0.71	37.350	0.691
17:00:40	409.35	446.29	38.42	0.71	37.317	0.691
17:10:40	410.46	446.44	37.40	0.69	36.155	0.669
17:20:40	410.28	446.44	37.60	0.70	36.352	0.673
17:30:40	410.23	446.44	37.64	0.70	36.396	0.674
17:40:40	410.18	446.44	37.70	0.70	36.451	0.675
17:50:40	409.99	446.44	37.89	0.70	36.649	0.678
18:00:40	409.94	446.44	37.95	0.70	36.703	0.679
18:10:40	410.80	446.46	37.08	0.69	35.805	0.663
18:20:40	410.58	446.46	37.31	0.69	36.035	0.667
18:30:40	410.41	446.46	37.48	0.69	36.210	0.670
18:40:40	410.30	446.46	37.60	0.70	36.331	0.672
18:50:40	410.30	446.46	37.60	0.70	36.331	0.672
19:00:40	410.02	446.46	37.89	0.70	36.616	0.678

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
19:10:40	410.84	446.63	37.20	0.69	35.762	0.662
19:20:40	410.86	446.63	37.18	0.69	35.739	0.661
19:30:40	410.76	446.63	37.29	0.69	35.849	0.663
19:40:40	410.66	446.63	37.39	0.69	35.948	0.665
19:50:40	410.61	446.63	37.45	0.69	36.003	0.666
20:00:40	410.53	446.63	37.53	0.70	36.091	0.668
20:10:40	411.42	446.94	36.93	0.68	35.159	0.651
20:20:40	411.34	446.94	37.02	0.69	35.247	0.652
20:30:40	411.34	446.94	37.02	0.69	35.247	0.652
20:40:40	411.37	446.94	36.99	0.69	35.214	0.652
20:50:40	411.39	446.94	36.97	0.68	35.192	0.651
21:00:40	411.35	446.94	37.01	0.69	35.236	0.652
21:10:40	412.32	447.29	36.37	0.67	34.227	0.633
21:20:40	412.38	447.29	36.30	0.67	34.162	0.632
21:30:40	412.25	447.29	36.44	0.68	34.304	0.635
21:40:40	412.40	447.29	36.28	0.67	34.139	0.632
21:50:40	412.35	447.29	36.33	0.67	34.194	0.633
22:00:40	412.25	447.29	36.44	0.68	34.304	0.635
22:10:40	412.37	446.83	35.83	0.66	34.172	0.632
22:20:40	412.38	446.83	35.82	0.66	34.161	0.632
22:30:40	412.29	446.83	35.92	0.67	34.260	0.634
22:40:40	412.25	446.83	35.96	0.67	34.304	0.635
22:50:40	412.30	446.83	35.91	0.67	34.248	0.634
23:00:40	412.37	446.83	35.83	0.66	34.172	0.632
23:10:40	412.42	446.71	35.65	0.66	34.117	0.631
23:20:40	412.49	446.71	35.58	0.66	34.051	0.630
23:30:40	412.72	446.71	35.34	0.65	33.810	0.626
23:40:40	413.07	446.71	34.98	0.65	33.448	0.619
23:50:40	413.13	446.71	34.91	0.65	33.381	0.618
24:00:40	413.25	446.71	34.79	0.64	33.261	0.616
24:10:40	413.25	446.56	34.64	0.64	33.261	0.616
24:20:40	413.54	446.56	34.33	0.64	32.953	0.610
24:30:40	413.64	446.56	34.23	0.63	32.855	0.608
24:40:40	413.91	446.56	33.95	0.63	32.570	0.603
24:50:40	414.13	446.56	33.72	0.62	32.339	0.598
25:00:40	414.33	446.56	33.52	0.62	32.141	0.595
25:10:40	414.33	446.28	33.22	0.62	32.141	0.595
25:20:40	414.28	446.28	33.27	0.62	32.185	0.596
25:30:40	414.16	446.28	33.40	0.62	32.317	0.598
25:40:40	414.13	446.28	33.42	0.62	32.339	0.598
25:50:40	414.19	446.28	33.36	0.62	32.284	0.597
26:00:40	414.22	446.28	33.33	0.62	32.251	0.597
26:10:40	414.45	446.14	32.94	0.61	32.009	0.592
26:20:40	414.53	446.14	32.87	0.61	31.933	0.591
26:30:40	414.44	446.14	32.96	0.61	32.021	0.593
26:40:40	414.61	446.14	32.78	0.61	31.845	0.589
26:50:40	414.73	446.14	32.66	0.61	31.724	0.587
27:00:40	414.75	446.14	32.64	0.60	31.702	0.587

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
27:10:40	414.97	445.92	32.18	0.60	31.472	0.582
27:20:40	415.20	445.92	31.93	0.59	31.230	0.578
27:30:40	415.14	445.92	32.00	0.59	31.296	0.579
27:40:40	415.10	445.92	32.04	0.59	31.340	0.580
27:50:40	415.32	445.92	31.81	0.59	31.110	0.576
28:00:40	415.57	445.92	31.55	0.58	30.846	0.571
28:10:40	416.66	446.57	31.10	0.58	29.717	0.550
28:20:40	416.86	446.57	30.89	0.57	29.508	0.546
28:30:40	417.03	446.57	30.72	0.57	29.332	0.543
28:40:40	417.22	446.57	30.52	0.57	29.135	0.539
28:50:40	417.18	446.57	30.55	0.57	29.168	0.540
29:00:40	417.38	446.57	30.35	0.56	28.970	0.536
29:10:40	417.44	446.33	30.04	0.56	28.904	0.535
29:20:40	417.51	446.33	29.96	0.56	28.827	0.533
29:30:40	417.83	446.33	29.63	0.55	28.498	0.527
29:40:40	418.05	446.33	29.40	0.54	28.268	0.523
29:50:40	418.11	446.33	29.34	0.54	28.202	0.522
30:00:40	418.22	446.33	29.23	0.54	28.092	0.520
30:10:40	418.36	446.04	28.79	0.53	27.949	0.517
30:20:40	418.55	446.04	28.59	0.53	27.752	0.514
30:30:40	418.61	446.04	28.52	0.53	27.685	0.512
30:40:40	418.86	446.04	28.26	0.52	27.422	0.507
30:50:40	418.88	446.04	28.24	0.52	27.400	0.507
31:00:40	419.00	446.04	28.12	0.52	27.279	0.505
31:10:40	420.05	446.64	27.66	0.51	26.194	0.485
31:20:40	420.08	446.64	27.62	0.51	26.161	0.484
31:30:40	419.96	446.64	27.74	0.51	26.282	0.486
31:40:40	419.95	446.64	27.75	0.51	26.293	0.487
31:50:40	419.85	446.64	27.86	0.52	26.402	0.489
32:00:40	419.91	446.64	27.80	0.52	26.337	0.487
32:10:40	420.05	446.35	27.35	0.51	26.194	0.485
32:20:40	420.10	446.35	27.30	0.51	26.139	0.484
32:30:40	420.21	446.35	27.18	0.50	26.018	0.481
32:40:40	420.20	446.35	27.19	0.50	26.029	0.482
32:50:40	420.43	446.35	29.76	0.50	25.799	0.477
33:00:40	420.34	446.35	27.04	0.50	25.886	0.479
33:10:40	420.38	446.29	29.74	0.50	25.843	0.478
33:20:40	420.43	446.29	26.89	0.50	25.799	0.477
33:30:40	420.44	446.29	26.88	0.50	25.788	0.477
33:40:40	420.69	446.29	26.62	0.49	25.524	0.472
33:50:40	420.83	446.29	26.48	0.49	25.382	0.470
34:00:40	420.96	446.29	26.33	0.49	25.239	0.467
34:10:40	421.10	446.34	26.24	0.49	25.096	0.464
34:20:40	421.27	446.34	26.06	0.48	24.920	0.461
34:30:40	421.39	446.34	25.94	0.48	24.799	0.459
34:40:40	421.52	446.34	25.80	0.48	24.657	0.456
34:50:40	421.75	446.34	25.57	0.47	24.426	0.452
35:00:40	421.83	446.34	25.48	0.47	24.338	0.450

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
35:10:40	421.80	446.21	25.39	0.47	24.372	0.451
35:20:40	422.10	446.21	25.07	0.46	24.053	0.445
35:30:40	422.33	446.21	24.84	0.46	23.823	0.441
35:40:40	422.14	446.21	25.04	0.46	24.020	0.444
35:50:40	422.02	446.21	25.16	0.47	24.141	0.447
36:00:40	422.08	446.21	25.09	0.46	24.076	0.446
36:10:40	422.30	446.29	24.94	0.46	23.845	0.441
36:20:40	422.33	446.29	24.92	0.46	23.823	0.441
36:30:40	422.45	446.29	24.79	0.46	23.691	0.438
36:40:40	422.59	446.29	24.65	0.46	23.548	0.436
36:50:40	422.78	446.29	24.45	0.45	23.351	0.432
37:00:40	422.83	446.29	24.40	0.45	23.296	0.431
37:10:40	422.81	446.10	24.22	0.45	23.318	0.432
37:20:40	423.10	446.10	23.92	0.44	23.022	0.426
37:30:40	423.23	446.10	23.78	0.44	22.878	0.423
37:40:40	423.25	446.10	23.76	0.44	22.857	0.423
37:50:40	423.05	446.10	23.97	0.44	23.066	0.427
38:00:40	423.07	446.10	23.95	0.44	23.054	0.427
38:10:40	423.05	445.99	23.85	0.44	23.066	0.427
38:20:40	422.95	445.99	23.95	0.44	23.175	0.429
38:30:40	422.92	445.99	23.99	0.44	23.208	0.429
38:40:40	423.22	445.99	23.67	0.44	22.890	0.424
38:50:40	423.23	445.99	23.66	0.44	22.878	0.423
39:00:40	423.25	445.99	23.64	0.44	22.857	0.423
39:10:40	423.27	445.73	23.36	0.43	22.846	0.423
39:20:40	423.29	445.73	23.34	0.43	22.823	0.422
39:30:40	423.37	445.73	23.25	0.43	22.736	0.421
39:40:40	423.48	445.73	23.14	0.43	22.626	0.419
39:50:40	423.53	445.73	23.08	0.43	22.572	0.418
40:00:40	423.54	445.73	23.07	0.43	22.559	0.417
40:10:40	424.44	446.34	22.77	0.42	21.628	0.400
40:20:40	424.22	446.34	23.00	0.43	21.858	0.404
40:30:40	423.90	446.34	23.33	0.43	22.188	0.411
40:40:40	423.90	446.34	23.33	0.43	22.188	0.411
40:50:40	423.96	446.34	23.27	0.43	22.122	0.409
41:00:40	423.82	446.34	23.41	0.43	22.264	0.412
41:10:40	423.79	445.93	23.02	0.43	22.298	0.413
41:20:40	423.90	445.93	22.91	0.42	22.188	0.411
41:30:40	424.08	445.93	22.72	0.42	22.002	0.407
41:40:40	423.90	445.93	22.91	0.42	22.188	0.411
41:50:40	423.95	445.93	22.85	0.42	22.133	0.410
42:00:40	423.88	445.93	22.93	0.42	22.210	0.411
42:10:40	424.37	446.59	23.10	0.43	21.695	0.401
42:20:40	424.27	446.59	23.21	0.43	21.805	0.404
42:30:40	424.32	446.59	23.15	0.43	21.750	0.402
42:40:40	424.52	446.59	22.94	0.43	21.542	0.399
42:50:40	424.54	446.59	22.92	0.42	21.519	0.398
43:00:40	424.32	446.59	23.15	0.43	21.750	0.402

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
43:10:40	424.35	446.34	22.86	0.42	21.717	0.402
43:20:40	424.35	446.34	22.86	0.42	21.717	0.402
43:30:40	424.29	446.34	22.93	0.42	21.783	0.403
43:40:40	424.35	446.34	22.86	0.42	21.717	0.402
43:50:40	424.44	446.34	22.77	0.42	21.629	0.400
44:00:40	424.46	446.34	22.75	0.42	21.607	0.400
44:10:40	424.41	446.20	22.65	0.42	21.651	0.401
44:20:40	424.25	446.20	22.82	0.42	21.826	0.404
44:30:40	424.37	446.20	22.69	0.42	21.695	0.401
44:40:40	424.66	446.20	22.40	0.41	21.399	0.396
44:50:40	424.59	446.20	22.46	0.42	21.464	0.397
45:00:40	424.85	446.20	22.20	0.41	21.200	0.392
45:10:40	424.88	445.91	21.87	0.41	21.168	0.392
45:20:40	424.89	445.91	21.85	0.40	21.157	0.392
45:30:40	424.86	445.91	21.89	0.41	21.190	0.392
45:40:40	424.86	445.91	21.89	0.41	21.190	0.392
45:50:40	424.66	445.91	22.10	0.41	21.399	0.396
46:00:40	424.59	445.91	22.16	0.41	21.464	0.397
46:10:40	424.83	445.85	21.86	0.41	21.223	0.393
46:20:40	424.91	445.85	21.77	0.40	21.135	0.391
46:30:40	424.86	445.85	21.83	0.40	21.190	0.392
46:40:40	425.02	445.85	21.66	0.40	21.026	0.389
46:50:40	425.18	445.85	21.49	0.40	20.850	0.386
47:00:40	425.23	445.85	21.45	0.40	20.806	0.385
47:10:40	425.39	446.07	21.51	0.40	20.641	0.382
47:20:40	425.45	446.07	21.44	0.40	20.576	0.381
47:30:40	425.36	446.07	21.53	0.40	20.663	0.382
47:40:40	425.50	446.07	21.39	0.40	20.520	0.380
47:50:40	425.74	446.07	21.13	0.39	20.268	0.375
48:00:40	425.81	446.07	21.07	0.39	20.202	0.374
48:10:40	426.03	446.45	21.23	0.39	19.971	0.370
48:20:40	426.53	446.45	20.71	0.38	19.455	0.360
48:30:40	426.70	446.45	20.54	0.38	19.279	0.357
48:40:40	427.07	446.45	20.14	0.37	18.885	0.349
48:50:40	427.29	446.45	19.92	0.37	18.665	0.345
49:00:40	427.40	446.45	19.80	0.37	18.544	0.343
49:10:40	426.47	445.59	19.87	0.37	19.509	0.361
49:20:40	427.01	445.59	19.31	0.36	18.949	0.351
49:30:40	427.13	445.59	19.19	0.36	18.828	0.348
49:40:40	427.34	445.59	18.97	0.35	18.609	0.344
49:50:40	427.38	445.59	18.93	0.35	18.565	0.344
50:00:40	427.52	445.59	18.78	0.35	18.422	0.341
50:10:40	427.76	445.82	18.78	0.35	18.170	0.336
50:20:40	427.86	445.82	18.68	0.35	18.071	0.334
50:30:40	427.73	445.82	18.81	0.35	18.203	0.337
50:40:40	427.76	445.82	18.78	0.35	18.170	0.336
50:50:40	427.90	445.82	18.63	0.35	18.028	0.334
51:00:40	428.22	445.82	18.30	0.34	17.697	0.327

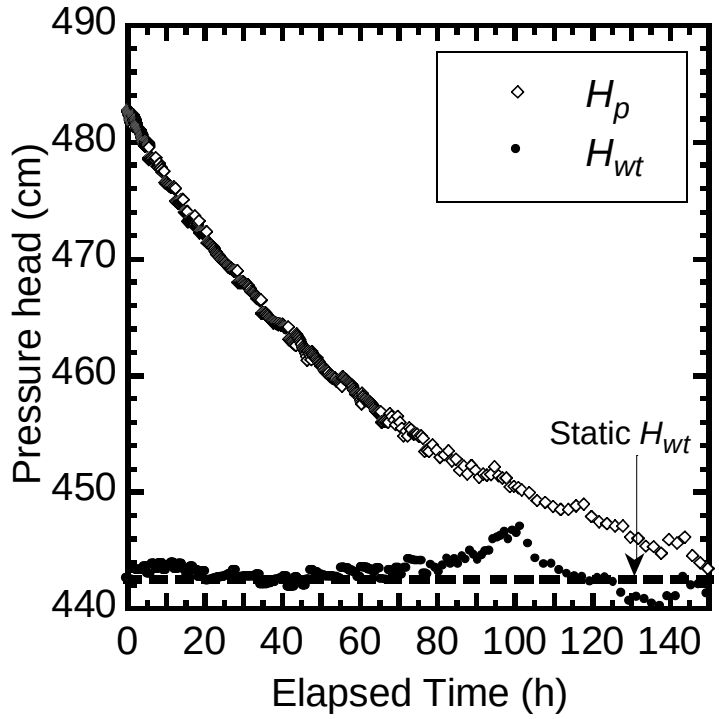
0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
51:10:40	428.53	445.83	17.98	0.33	17.368	0.321
51:20:40	428.76	445.83	17.75	0.33	17.138	0.317
51:30:40	428.94	445.83	17.55	0.33	16.941	0.313
51:40:40	428.91	445.83	17.58	0.33	16.973	0.314
51:50:40	428.98	445.83	17.52	0.32	16.907	0.313
52:00:40	428.98	445.83	17.52	0.32	16.907	0.313
52:10:40	429.06	445.70	17.30	0.32	16.819	0.311
52:20:40	429.06	445.70	17.30	0.32	16.819	0.311
52:30:40	429.13	445.70	17.23	0.32	16.743	0.310
52:40:40	429.08	445.70	17.28	0.32	16.798	0.311
52:50:40	429.02	445.70	17.35	0.32	16.863	0.312
53:00:40	429.17	445.70	17.19	0.32	16.710	0.309
53:10:40	429.28	445.50	16.86	0.31	16.589	0.307
53:20:40	429.28	445.50	16.86	0.31	16.589	0.307
53:30:40	429.39	445.50	16.75	0.31	16.479	0.305
53:40:40	429.30	445.50	16.84	0.31	16.567	0.307
53:50:40	429.23	445.50	16.92	0.31	16.643	0.308
54:00:40	429.15	445.50	17.01	0.32	16.731	0.310
54:10:40	429.17	445.47	16.95	0.31	16.710	0.309
54:20:40	429.27	445.47	16.84	0.31	16.599	0.307
54:30:40	429.34	445.47	16.77	0.31	16.534	0.306
54:40:40	429.48	445.47	16.62	0.31	16.381	0.303
54:50:40	429.61	445.47	16.49	0.31	16.249	0.301
55:00:40	429.70	445.47	16.39	0.30	16.150	0.299
55:10:40	429.84	445.12	15.88	0.29	16.008	0.296
55:20:40	429.78	445.12	15.95	0.30	16.073	0.297
55:30:40	429.76	445.12	15.97	0.30	16.094	0.298
55:40:40	429.76	445.12	15.97	0.30	16.094	0.298
55:50:40	429.65	445.12	16.08	0.30	16.205	0.300
56:00:40	429.48	445.12	16.26	0.30	16.380	0.303
56:10:40	430.32	446.03	16.34	0.30	15.514	0.287
56:20:40	430.35	446.03	16.30	0.30	15.481	0.286
56:30:40	430.40	446.03	16.25	0.30	15.426	0.285
56:40:40	430.43	446.03	16.22	0.30	15.393	0.285
56:50:40	430.51	446.03	16.14	0.30	15.317	0.283
57:00:40	430.55	446.03	16.10	0.30	15.273	0.283
57:10:40	430.54	446.14	16.22	0.30	15.284	0.283
57:20:40	430.76	446.14	15.99	0.30	15.053	0.279
57:30:40	430.99	446.14	15.75	0.29	14.812	0.274
57:40:40	431.02	446.14	15.71	0.29	14.779	0.273
57:50:40	431.33	446.14	15.40	0.29	14.460	0.268
58:00:40	431.27	446.14	15.46	0.29	14.526	0.269
58:10:40	430.18	445.34	15.76	0.29	15.656	0.290
58:20:40	430.29	445.34	15.65	0.29	15.545	0.288
58:30:40	430.54	445.34	15.38	0.29	15.283	0.283
58:40:40	430.71	445.34	15.21	0.28	15.107	0.280
58:50:40	430.82	445.34	15.09	0.28	14.986	0.277
59:00:40	430.96	445.34	14.94	0.28	14.843	0.275

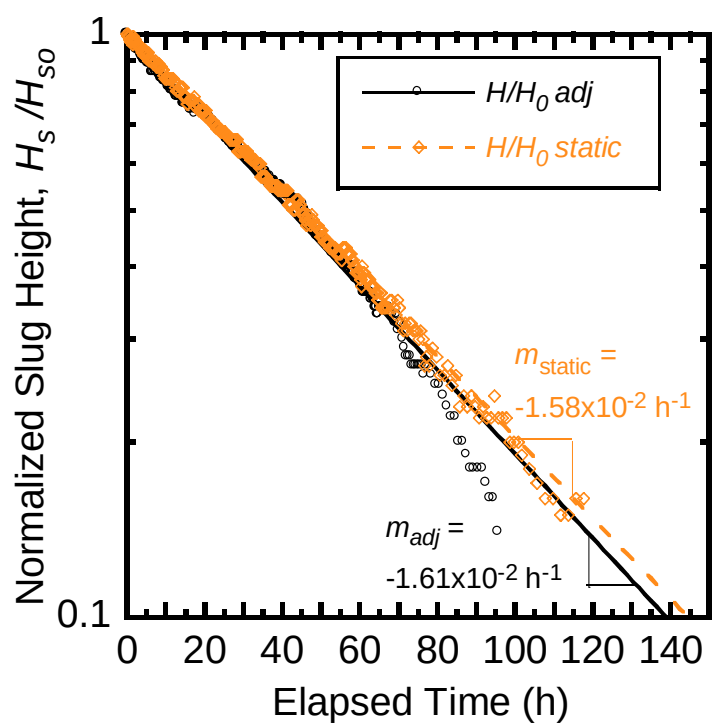
0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
59:10:40	431.07	445.57	15.08	0.28	14.734	0.273
59:20:40	430.99	445.57	15.16	0.28	14.810	0.274
59:30:40	431.08	445.57	15.07	0.28	14.722	0.272
59:40:40	431.18	445.57	14.96	0.28	14.612	0.270
59:50:40	431.41	445.57	14.73	0.27	14.382	0.266
60:00:40	431.64	445.57	14.49	0.27	14.141	0.262
60:10:40	431.83	445.76	14.48	0.27	13.942	0.258
60:20:40	431.84	445.76	14.47	0.27	13.932	0.258
60:30:40	431.77	445.76	14.54	0.27	13.998	0.259
60:40:40	431.89	445.76	14.42	0.27	13.877	0.257
60:50:40	432.09	445.76	14.21	0.26	13.668	0.253
61:00:40	432.28	445.76	14.01	0.26	13.471	0.249
61:10:40	432.34	445.91	14.10	0.26	13.405	0.248
61:20:40	432.40	445.91	14.05	0.26	13.350	0.247
61:30:40	432.40	445.91	14.05	0.26	13.350	0.247
61:40:40	432.59	445.91	13.85	0.26	13.152	0.243
61:50:40	432.77	445.91	13.66	0.25	12.966	0.240
62:00:40	432.79	445.91	13.64	0.25	12.944	0.240
62:10:40	431.83	444.89	13.58	0.25	13.941	0.258
62:20:40	431.91	444.89	13.49	0.25	13.853	0.256
62:30:40	432.03	444.89	13.37	0.25	13.733	0.254
62:40:40	432.06	444.89	13.34	0.25	13.700	0.254
62:50:40	432.18	444.89	13.22	0.24	13.579	0.251
63:00:40	432.28	444.89	13.11	0.24	13.470	0.249
63:10:40	433.04	445.68	13.14	0.24	12.680	0.235
63:20:40	433.02	445.68	13.17	0.24	12.702	0.235
63:30:40	432.87	445.68	13.32	0.25	12.856	0.238
63:40:40	433.09	445.68	13.09	0.24	12.626	0.234
63:50:40	433.18	445.68	13.00	0.24	12.538	0.232
64:00:40	433.21	445.68	12.97	0.24	12.505	0.231
64:10:40	433.24	445.35	12.59	0.23	12.471	0.231
64:20:40	433.12	445.35	12.72	0.24	12.603	0.233
64:30:40	433.12	445.35	12.72	0.24	12.603	0.233
64:40:40	432.98	445.35	12.86	0.24	12.746	0.236
64:50:40	432.71	445.35	13.15	0.24	13.031	0.241
65:00:40	432.71	445.35	13.15	0.24	13.031	0.241
65:10:40	433.72	446.03	12.80	0.24	11.979	0.222
65:20:40	433.77	446.03	12.75	0.24	11.924	0.221
65:30:40	433.92	446.03	12.59	0.23	11.770	0.218
65:40:40	433.75	446.03	12.77	0.24	11.946	0.221
65:50:40	433.74	446.03	12.78	0.24	11.956	0.221
66:20:40	433.66	445.45	12.25	0.23	12.033	0.223
66:50:40	433.30	445.45	12.64	0.23	12.417	0.230
67:20:40	433.93	446.05	12.61	0.23	11.760	0.218
67:50:40	433.65	446.05	12.89	0.24	12.046	0.223
68:20:40	433.93	445.77	12.31	0.23	11.760	0.218
68:50:40	433.46	445.77	12.79	0.24	12.243	0.227
69:20:40	434.69	446.49	12.27	0.23	10.970	0.203

0+57.0	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
69:50:40	434.53	446.49	12.44	0.23	11.135	0.206
70:20:40	434.75	446.44	12.15	0.23	10.905	0.202
70:50:40	434.86	446.44	12.04	0.22	10.795	0.200
71:20:40	434.14	445.68	12.00	0.22	11.540	0.214
71:50:40	434.55	445.68	11.57	0.21	11.112	0.206
72:20:40	434.98	445.90	11.35	0.21	10.662	0.197
72:50:40	435.36	445.90	10.95	0.20	10.267	0.190
73:20:40	434.50	445.05	10.97	0.20	11.166	0.207
73:50:40	434.86	445.05	10.59	0.20	10.793	0.200
74:20:40	434.95	445.12	10.57	0.20	10.694	0.198
74:50:40	435.12	445.12	10.39	0.19	10.518	0.195
75:20:40	435.31	445.17	10.25	0.19	10.321	0.191
75:50:40	435.54	445.17	10.01	0.19	10.079	0.187
76:20:40	435.48	445.04	9.93	0.18	10.145	0.188
76:50:40	435.50	445.04	9.91	0.18	10.122	0.187
77:20:40	435.45	444.94	9.86	0.18	10.177	0.188
77:50:40	435.68	444.94	9.62	0.18	9.936	0.184
78:50:40	436.66	445.81	9.51	0.18	8.916	0.165
79:50:40	436.44	445.50	9.42	0.17	9.147	0.169
80:50:40	436.36	445.48	9.48	0.18	9.234	0.171
81:50:40	436.60	445.36	9.11	0.17	8.982	0.166
82:50:40	436.66	445.29	8.97	0.17	8.916	0.165
83:50:40	436.91	445.27	8.70	0.16	8.664	0.160
84:50:40	437.00	445.45	8.78	0.16	8.564	0.158
85:50:40	437.70	445.79	8.41	0.16	7.840	0.145
86:50:40	437.17	444.71	7.83	0.15	8.387	0.155
87:50:40	437.92	445.44	7.82	0.14	7.609	0.141
88:50:40	438.36	445.95	7.89	0.15	7.149	0.132
89:50:40	437.84	445.40	7.86	0.15	7.687	0.142
90:50:40	438.05	445.77	8.02	0.15	7.468	0.138
91:50:40	438.48	446.27	8.10	0.15	7.031	0.130
92:50:40	438.28	445.90	7.93	0.15	7.239	0.134
93:50:40	439.05	446.51	7.76	0.14	6.439	0.119
94:50:40	438.91	446.18	7.56	0.14	6.581	0.122
95:50:40	439.00	446.14	7.42	0.14	6.482	0.120
96:50:40	439.59	446.13	6.80	0.13	5.868	0.109
97:50:40	439.52	446.05	6.78	0.13	5.944	0.110
98:50:40	439.52	445.85	6.58	0.12	5.944	0.110
99:50:40	439.49	445.56	6.32	0.12	5.977	0.111
100:50:40	439.96	446.05	6.33	0.12	5.485	0.102
101:50:40	439.86	445.78	6.15	0.11	5.594	0.104
103:50:40	440.24	446.00	6.00	0.11	5.200	0.096
105:50:40	440.63	446.61	6.22	0.12	4.795	0.089
107:50:40	440.49	445.64	5.36	0.10	4.936	0.091
109:50:40	440.81	445.95	5.35	0.10	4.607	0.085
111:50:40	440.84	445.48	4.82	0.09	4.573	0.085
113:50:40	441.61	445.62	4.17	0.08	3.771	0.070
115:50:40	441.17	445.38	4.38	0.08	4.231	0.078

0+57.0	**6.0 m**					**Test #1**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
117:50:40	442.01	445.76	3.90	0.07	3.353	0.062
119:50:40	441.91	445.23	3.46	0.06	3.462	0.064
121:50:40	442.44	445.44	3.12	0.06	2.913	0.054
123:50:40	442.13	444.78	2.76	0.05	3.230	0.060
125:50:40	442.47	445.08	2.72	0.05	2.879	0.053
127:50:40	442.44	445.27	2.95	0.05	2.913	0.054
129:50:40	442.59	446.25	3.80	0.07	2.751	0.051
131:50:40	442.18	445.76	3.72	0.07	3.179	0.059
133:50:40	443.02	446.73	3.85	0.07	2.303	0.043
135:50:40	443.31	447.47	4.33	0.08	2.008	0.037
137:50:40	443.78	447.58	3.95	0.07	1.513	0.028
139:50:40	444.08	447.75	3.82	0.07	1.207	0.022
141:50:40	443.32	446.55	3.36	0.06	1.994	0.037
143:50:40	444.26	446.83	2.68	0.05	1.016	0.019
145:50:40	443.50	445.32	1.88	0.03	1.802	0.033
147:50:40	444.45	445.60	1.20	0.02	0.823	0.015
149:50:40	444.42	445.33	0.96	0.02	0.855	0.016

Test Location (m)	**0+57.0**	**Effective Stress on date of test (kPa)**	**11.0**
Depth (m)	6.0	**Test # in well**	2
Well #	5	**Test Type**	Rate of Fall
Start Date of Test	10/11/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	442.5
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	40.2
k_{adj} (cm/s)	1.32E-07	**k_{static} (cm/s)**	1.29E-07





0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	482.73	442.54	40.18	1.00	40.18	1.00
0:00:10	482.69	442.54	40.15	1.00	40.15	1.00
0:00:20	482.69	442.54	40.15	1.00	40.15	1.00
0:00:30	482.69	442.54	40.15	1.00	40.15	1.00
0:00:40	482.70	442.54	40.16	1.00	40.16	1.00
0:00:50	482.69	442.54	40.15	1.00	40.15	1.00
0:01:00	482.70	442.54	40.16	1.00	40.16	1.00
0:01:10	482.70	442.54	40.16	1.00	40.16	1.00
0:01:20	482.67	442.54	40.13	1.00	40.13	1.00
0:01:30	482.67	442.54	40.13	1.00	40.13	1.00
0:01:40	482.67	442.54	40.13	1.00	40.13	1.00
0:01:50	482.67	442.54	40.13	1.00	40.13	1.00
0:02:00	482.67	442.54	40.13	1.00	40.13	1.00
0:02:10	482.67	442.54	40.13	1.00	40.13	1.00
0:02:20	482.67	442.54	40.13	1.00	40.13	1.00
0:02:30	482.69	442.54	40.15	1.00	40.15	1.00
0:02:40	482.69	442.54	40.15	1.00	40.15	1.00
0:02:50	482.67	442.54	40.13	1.00	40.13	1.00
0:03:00	482.67	442.54	40.13	1.00	40.13	1.00
0:03:10	482.69	442.54	40.15	1.00	40.15	1.00
0:03:20	482.69	442.54	40.15	1.00	40.15	1.00
0:03:30	482.67	442.54	40.13	1.00	40.13	1.00
0:03:40	482.65	442.54	40.11	1.00	40.11	1.00
0:03:50	482.65	442.54	40.11	1.00	40.11	1.00
0:04:00	482.67	442.54	40.13	1.00	40.13	1.00
0:04:10	482.70	442.54	40.16	1.00	40.16	1.00
0:04:20	482.67	442.54	40.13	1.00	40.13	1.00
0:04:30	482.69	442.54	40.15	1.00	40.15	1.00
0:04:40	482.67	442.54	40.13	1.00	40.13	1.00
0:04:50	482.69	442.54	40.15	1.00	40.15	1.00
0:05:00	482.69	442.54	40.15	1.00	40.15	1.00
0:05:10	482.70	442.54	40.16	1.00	40.16	1.00
0:05:20	482.70	442.54	40.16	1.00	40.16	1.00
0:05:30	482.69	442.54	40.15	1.00	40.15	1.00
0:05:40	482.70	442.54	40.16	1.00	40.16	1.00
0:05:50	482.67	442.54	40.13	1.00	40.13	1.00
0:06:00	482.69	442.54	40.15	1.00	40.15	1.00
0:06:10	482.67	442.54	40.13	1.00	40.13	1.00
0:06:20	482.69	442.54	40.15	1.00	40.15	1.00
0:06:30	482.69	442.54	40.15	1.00	40.15	1.00
0:06:40	482.67	442.54	40.13	1.00	40.13	1.00
0:06:50	482.67	442.54	40.13	1.00	40.13	1.00
0:07:00	482.65	442.54	40.11	1.00	40.11	1.00
0:07:10	482.65	442.54	40.11	1.00	40.11	1.00
0:07:20	482.67	442.54	40.13	1.00	40.13	1.00
0:07:30	482.67	442.54	40.13	1.00	40.13	1.00
0:07:40	482.69	442.54	40.15	1.00	40.15	1.00
0:07:50	482.69	442.54	40.15	1.00	40.15	1.00
0:08:00	482.67	442.54	40.13	1.00	40.13	1.00
0:08:10	482.65	442.54	40.11	1.00	40.11	1.00

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	482.69	442.54	40.15	1.00	40.15	1.00
0:08:30	482.69	442.54	40.15	1.00	40.15	1.00
0:08:40	482.67	442.54	40.13	1.00	40.13	1.00
0:08:50	482.67	442.54	40.13	1.00	40.13	1.00
0:09:00	482.69	442.54	40.15	1.00	40.15	1.00
0:09:10	482.69	442.54	40.15	1.00	40.15	1.00
0:09:20	482.70	442.54	40.16	1.00	40.16	1.00
0:09:30	482.70	442.54	40.16	1.00	40.16	1.00
0:09:40	482.70	442.54	40.16	1.00	40.16	1.00
0:09:50	482.69	442.54	40.15	1.00	40.15	1.00
0:10:00	482.69	442.54	40.15	1.00	40.15	1.00
0:10:10	482.73	442.54	40.18	1.00	40.18	1.00
0:10:20	482.70	442.54	40.16	1.00	40.16	1.00
0:10:30	482.70	442.54	40.16	1.00	40.16	1.00
0:10:40	482.73	442.54	40.18	1.00	40.18	1.00
0:10:50	482.73	442.54	40.18	1.00	40.18	1.00
0:11:00	482.73	442.54	40.18	1.00	40.18	1.00
0:11:10	482.70	442.54	40.16	1.00	40.16	1.00
0:11:20	482.70	442.54	40.16	1.00	40.16	1.00
0:11:30	482.73	442.54	40.18	1.00	40.18	1.00
0:11:40	482.70	442.54	40.16	1.00	40.16	1.00
0:11:50	482.70	442.54	40.16	1.00	40.16	1.00
0:12:00	482.69	442.54	40.15	1.00	40.15	1.00
0:12:30	482.69	442.54	40.15	1.00	40.15	1.00
0:13:00	482.65	442.54	40.11	1.00	40.11	1.00
0:13:30	482.62	442.54	40.07	1.00	40.07	1.00
0:14:00	482.62	442.54	40.07	1.00	40.07	1.00
0:14:30	482.58	442.54	40.04	1.00	40.04	1.00
0:15:00	482.56	442.54	40.02	1.00	40.02	1.00
0:15:30	482.55	442.54	40.01	1.00	40.01	1.00
0:16:00	482.53	442.54	39.99	1.00	39.99	1.00
0:16:30	482.50	442.54	39.95	0.99	39.95	0.99
0:17:00	482.50	442.54	39.95	0.99	39.95	0.99
0:17:30	482.47	442.54	39.93	0.99	39.93	0.99
0:18:00	482.46	442.54	39.92	0.99	39.92	0.99
0:18:30	482.44	442.54	39.90	0.99	39.90	0.99
0:19:00	482.44	442.54	39.90	0.99	39.90	0.99
0:19:30	482.44	442.54	39.90	0.99	39.90	0.99
0:20:00	482.44	442.54	39.90	0.99	39.90	0.99
0:20:30	482.43	442.54	39.89	0.99	39.89	0.99
0:21:00	482.41	442.54	39.87	0.99	39.87	0.99
0:21:30	482.46	442.54	39.92	0.99	39.92	0.99
0:22:00	482.43	442.54	39.89	0.99	39.89	0.99
0:22:30	482.44	442.54	39.90	0.99	39.90	0.99
0:23:00	482.43	442.54	39.89	0.99	39.89	0.99
0:23:30	482.43	442.54	39.89	0.99	39.89	0.99
0:24:00	482.44	442.54	39.90	0.99	39.90	0.99
0:24:30	482.44	442.54	39.90	0.99	39.90	0.99
0:25:00	482.44	442.54	39.90	0.99	39.90	0.99
0:25:30	482.46	442.54	39.92	0.99	39.92	0.99

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:26:00	482.43	442.54	39.89	0.99	39.89	0.99
0:26:30	482.43	442.54	39.89	0.99	39.89	0.99
0:27:00	482.43	442.54	39.89	0.99	39.89	0.99
0:27:30	482.40	442.54	39.85	0.99	39.85	0.99
0:28:00	482.41	442.54	39.87	0.99	39.87	0.99
0:28:30	482.37	442.54	39.83	0.99	39.83	0.99
0:29:00	482.35	442.54	39.81	0.99	39.81	0.99
0:29:30	482.32	442.54	39.78	0.99	39.78	0.99
0:30:00	482.31	442.39	39.92	0.99	39.77	0.99
0:30:30	482.31	442.39	39.92	0.99	39.77	0.99
0:31:00	482.31	442.39	39.92	0.99	39.77	0.99
0:31:30	482.29	442.39	39.90	0.99	39.74	0.99
0:32:00	482.31	442.39	39.92	0.99	39.77	0.99
0:32:30	482.26	442.39	39.88	0.99	39.72	0.99
0:33:00	482.26	442.39	39.88	0.99	39.72	0.99
0:33:30	482.26	442.39	39.88	0.99	39.72	0.99
0:34:00	482.23	442.39	39.84	0.99	39.69	0.99
0:34:30	482.26	442.39	39.88	0.99	39.72	0.99
0:35:00	482.25	442.39	39.86	0.99	39.71	0.99
0:35:30	482.26	442.39	39.88	0.99	39.72	0.99
0:36:00	482.25	442.39	39.86	0.99	39.71	0.99
0:36:30	482.25	442.39	39.86	0.99	39.71	0.99
0:37:00	482.26	442.39	39.88	0.99	39.72	0.99
0:37:30	482.26	442.39	39.88	0.99	39.72	0.99
0:38:00	482.25	442.39	39.86	0.99	39.71	0.99
0:38:30	482.29	442.39	39.90	0.99	39.74	0.99
0:39:00	482.26	442.39	39.88	0.99	39.72	0.99
0:39:30	482.26	442.39	39.88	0.99	39.72	0.99
0:40:00	482.23	442.39	39.84	0.99	39.69	0.99
0:40:30	482.23	442.39	39.84	0.99	39.69	0.99
0:41:00	482.23	442.39	39.84	0.99	39.69	0.99
0:41:30	482.22	442.39	39.83	0.99	39.68	0.99
0:42:00	482.16	442.39	39.78	0.99	39.62	0.99
0:42:30	482.16	442.39	39.78	0.99	39.62	0.99
0:43:00	482.11	442.39	39.72	0.99	39.57	0.98
0:43:30	482.10	442.39	39.71	0.99	39.56	0.98
0:44:00	482.06	442.39	39.67	0.99	39.51	0.98
0:44:30	482.06	442.39	39.67	0.99	39.51	0.98
0:45:00	482.04	442.39	39.66	0.99	39.50	0.98
0:45:30	482.01	442.39	39.62	0.99	39.47	0.98
0:46:00	481.99	442.39	39.60	0.99	39.45	0.98
0:46:30	481.99	442.39	39.60	0.99	39.45	0.98
0:47:00	481.92	442.39	39.54	0.98	39.38	0.98
0:47:30	481.92	442.39	39.54	0.98	39.38	0.98
0:48:00	481.90	442.39	39.51	0.98	39.36	0.98
0:48:30	481.90	442.39	39.51	0.98	39.36	0.98
0:49:00	481.87	442.39	39.48	0.98	39.33	0.98
0:49:30	481.85	442.39	39.46	0.98	39.30	0.98
0:50:00	481.87	442.39	39.48	0.98	39.33	0.98
0:50:30	481.87	442.39	39.48	0.98	39.33	0.98

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:51:00	481.85	442.39	39.46	0.98	39.30	0.98
0:51:30	481.85	442.39	39.46	0.98	39.30	0.98
0:52:00	481.85	442.39	39.46	0.98	39.30	0.98
0:52:30	481.84	442.39	39.45	0.98	39.29	0.98
0:53:00	481.81	442.39	39.43	0.98	39.27	0.98
0:53:30	481.81	442.39	39.43	0.98	39.27	0.98
0:54:00	481.76	442.39	39.37	0.98	39.22	0.98
0:54:30	481.75	442.39	39.36	0.98	39.21	0.98
0:55:00	481.73	442.39	39.34	0.98	39.18	0.98
0:55:30	481.70	442.39	39.32	0.98	39.16	0.97
0:56:00	481.69	442.39	39.30	0.98	39.15	0.97
0:56:30	481.70	442.39	39.32	0.98	39.16	0.97
0:57:00	481.73	442.39	39.34	0.98	39.18	0.98
0:57:30	481.73	442.39	39.34	0.98	39.18	0.98
0:58:00	481.73	442.39	39.34	0.98	39.18	0.98
0:58:30	481.73	442.39	39.34	0.98	39.18	0.98
0:59:00	481.73	442.39	39.34	0.98	39.18	0.98
0:59:30	481.73	442.39	39.34	0.98	39.18	0.98
1:00:00	481.75	442.39	39.36	0.98	39.21	0.98
1:00:30	481.76	442.39	39.37	0.98	39.22	0.98
1:01:00	481.76	442.39	39.37	0.98	39.22	0.98
1:01:30	481.78	442.39	39.39	0.98	39.24	0.98
1:02:00	481.78	442.39	39.39	0.98	39.24	0.98
1:02:30	481.76	442.39	39.37	0.98	39.22	0.98
1:03:00	481.76	442.39	39.37	0.98	39.22	0.98
1:03:30	481.78	442.39	39.39	0.98	39.24	0.98
1:04:00	481.79	442.39	39.40	0.98	39.25	0.98
1:04:30	481.81	442.39	39.43	0.98	39.27	0.98
1:05:00	481.79	442.39	39.40	0.98	39.25	0.98
1:05:30	481.79	442.39	39.40	0.98	39.25	0.98
1:06:00	481.81	442.39	39.43	0.98	39.27	0.98
1:06:30	481.79	442.39	39.40	0.98	39.25	0.98
1:07:00	481.78	442.39	39.39	0.98	39.24	0.98
1:07:30	481.78	442.39	39.39	0.98	39.24	0.98
1:08:00	481.76	442.39	39.37	0.98	39.22	0.98
1:08:30	481.75	442.39	39.36	0.98	39.21	0.98
1:09:00	481.76	442.39	39.37	0.98	39.22	0.98
1:09:30	481.75	442.39	39.36	0.98	39.21	0.98
1:10:00	481.75	442.39	39.36	0.98	39.21	0.98
1:10:30	481.76	442.39	39.37	0.98	39.22	0.98
1:11:00	481.76	442.39	39.37	0.98	39.22	0.98
1:11:30	481.73	442.39	39.34	0.98	39.18	0.98
1:12:00	481.73	442.39	39.34	0.98	39.18	0.98
1:12:30	481.70	442.39	39.32	0.98	39.16	0.97
1:13:00	481.70	442.39	39.32	0.98	39.16	0.97
1:13:30	481.67	442.39	39.28	0.98	39.13	0.97
1:14:00	481.64	442.39	39.25	0.98	39.10	0.97
1:14:30	481.63	442.39	39.24	0.98	39.09	0.97
1:15:00	481.60	442.39	39.22	0.98	39.06	0.97
1:15:30	481.58	442.39	39.20	0.98	39.04	0.97

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:16:00	481.58	442.39	39.20	0.98	39.04	0.97
1:16:30	481.55	442.39	39.16	0.97	39.01	0.97
1:17:00	481.54	442.39	39.15	0.97	39.00	0.97
1:17:30	481.54	442.39	39.15	0.97	39.00	0.97
1:18:00	481.54	442.39	39.15	0.97	39.00	0.97
1:18:30	481.55	442.39	39.16	0.97	39.01	0.97
1:19:00	481.52	442.39	39.13	0.97	38.98	0.97
1:19:30	481.54	442.39	39.15	0.97	39.00	0.97
1:20:00	481.54	442.39	39.15	0.97	39.00	0.97
1:20:30	481.52	442.39	39.13	0.97	38.98	0.97
1:21:00	481.52	442.39	39.13	0.97	38.98	0.97
1:21:30	481.52	442.39	39.13	0.97	38.98	0.97
1:22:00	481.54	442.39	39.15	0.97	39.00	0.97
1:22:30	481.50	442.39	39.11	0.97	38.95	0.97
1:23:00	481.50	442.39	39.11	0.97	38.95	0.97
1:23:30	481.50	442.39	39.11	0.97	38.95	0.97
1:24:00	481.45	442.39	39.06	0.97	38.91	0.97
1:24:30	481.45	442.39	39.06	0.97	38.91	0.97
1:25:00	481.43	442.39	39.04	0.97	38.89	0.97
1:25:30	481.43	442.39	39.04	0.97	38.89	0.97
1:26:00	481.41	442.39	39.02	0.97	38.87	0.97
1:26:30	481.41	442.39	39.02	0.97	38.87	0.97
1:27:00	481.41	442.39	39.02	0.97	38.87	0.97
1:27:30	481.40	442.39	39.01	0.97	38.86	0.97
1:28:00	481.37	442.39	38.99	0.97	38.83	0.97
1:28:30	481.37	442.39	38.99	0.97	38.83	0.97
1:29:00	481.37	442.39	38.99	0.97	38.83	0.97
1:29:30	481.31	442.39	38.92	0.97	38.77	0.96
1:30:00	482.33	443.28	39.04	0.97	39.79	0.99
1:30:30	482.31	443.28	39.02	0.97	39.76	0.99
1:31:00	482.31	443.28	39.02	0.97	39.76	0.99
1:31:30	482.27	443.28	38.99	0.97	39.73	0.99
1:32:00	482.27	443.28	38.99	0.97	39.73	0.99
1:32:30	482.26	443.28	38.98	0.97	39.72	0.99
1:33:00	482.24	443.28	38.96	0.97	39.70	0.99
1:33:30	482.24	443.28	38.96	0.97	39.70	0.99
1:34:00	482.22	443.28	38.93	0.97	39.68	0.99
1:34:30	482.22	443.28	38.93	0.97	39.68	0.99
1:35:00	482.18	443.28	38.90	0.97	39.64	0.99
1:35:30	482.21	443.28	38.92	0.97	39.67	0.99
1:36:00	482.18	443.28	38.90	0.97	39.64	0.99
1:36:30	482.17	443.28	38.89	0.97	39.63	0.99
1:37:00	482.13	443.28	38.85	0.97	39.59	0.99
1:37:30	482.13	443.28	38.85	0.97	39.59	0.99
1:38:00	482.13	443.28	38.85	0.97	39.59	0.99
1:38:30	482.10	443.28	38.81	0.97	39.56	0.98
1:39:00	482.10	443.28	38.81	0.97	39.56	0.98
1:39:30	482.06	443.28	38.78	0.97	39.52	0.98
1:40:00	482.00	443.28	38.71	0.96	39.46	0.98
1:40:30	482.00	443.28	38.71	0.96	39.46	0.98

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:41:00	481.98	443.28	38.69	0.96	39.44	0.98
1:41:30	481.94	443.28	38.66	0.96	39.40	0.98
1:42:00	481.92	443.28	38.64	0.96	39.38	0.98
1:43:00	481.89	443.28	38.60	0.96	39.35	0.98
1:44:00	481.86	443.28	38.57	0.96	39.31	0.98
1:45:00	481.82	443.28	38.54	0.96	39.28	0.98
1:46:00	481.80	443.28	38.52	0.96	39.26	0.98
1:47:00	481.80	443.28	38.52	0.96	39.26	0.98
1:48:00	481.79	443.28	38.51	0.96	39.25	0.98
1:49:00	481.74	443.28	38.45	0.96	39.19	0.98
1:50:00	481.68	443.28	38.39	0.96	39.14	0.97
1:51:00	481.71	443.28	38.43	0.96	39.17	0.97
1:52:00	481.70	443.28	38.42	0.96	39.16	0.97
1:53:00	481.71	443.28	38.43	0.96	39.17	0.97
1:54:00	481.75	443.28	38.46	0.96	39.20	0.98
1:55:00	481.79	443.28	38.51	0.96	39.25	0.98
1:56:00	481.82	443.28	38.54	0.96	39.28	0.98
1:57:00	481.82	443.28	38.54	0.96	39.28	0.98
1:58:00	481.86	443.28	38.57	0.96	39.31	0.98
1:59:00	481.82	443.28	38.54	0.96	39.28	0.98
2:00:00	481.86	443.28	38.57	0.96	39.31	0.98
2:01:00	481.88	443.28	38.59	0.96	39.34	0.98
2:02:00	481.89	443.28	38.60	0.96	39.35	0.98
2:03:00	481.88	443.28	38.59	0.96	39.34	0.98
2:04:00	481.92	443.28	38.64	0.96	39.38	0.98
2:05:00	481.91	443.28	38.63	0.96	39.37	0.98
2:06:00	481.91	443.28	38.63	0.96	39.37	0.98
2:07:00	481.86	443.28	38.57	0.96	39.31	0.98
2:08:00	481.83	443.28	38.55	0.96	39.29	0.98
2:09:00	481.80	443.28	38.52	0.96	39.26	0.98
2:10:00	481.74	443.28	38.45	0.96	39.19	0.98
2:11:00	481.68	443.28	38.39	0.96	39.14	0.97
2:12:00	481.61	443.28	38.33	0.95	39.07	0.97
2:13:00	481.57	443.28	38.29	0.95	39.03	0.97
2:14:00	481.50	443.28	38.22	0.95	38.96	0.97
2:15:00	481.45	443.28	38.16	0.95	38.91	0.97
2:16:00	481.42	443.28	38.13	0.95	38.88	0.97
2:17:00	481.38	443.28	38.10	0.95	38.84	0.97
2:18:00	481.35	443.28	38.07	0.95	38.81	0.97
2:19:00	481.33	443.28	38.04	0.95	38.79	0.97
2:20:00	481.32	443.28	38.03	0.95	38.78	0.96
2:21:00	481.32	443.28	38.03	0.95	38.78	0.96
2:22:00	481.27	443.28	37.99	0.95	38.73	0.96
2:23:00	481.24	443.28	37.96	0.94	38.70	0.96
2:24:00	481.24	443.28	37.96	0.94	38.70	0.96
2:25:00	481.21	443.28	37.92	0.94	38.67	0.96
2:26:00	481.23	443.28	37.95	0.94	38.69	0.96
2:27:00	481.21	443.28	37.92	0.94	38.67	0.96
2:28:00	481.23	443.28	37.95	0.94	38.69	0.96
2:29:00	481.20	443.28	37.91	0.94	38.66	0.96

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:30:00	481.17	443.19	37.98	0.95	38.63	0.96
2:31:00	481.14	443.19	37.95	0.94	38.60	0.96
2:32:00	481.14	443.19	37.95	0.94	38.60	0.96
2:33:00	481.12	443.19	37.93	0.94	38.58	0.96
2:34:00	481.12	443.19	37.93	0.94	38.58	0.96
2:35:00	481.12	443.19	37.93	0.94	38.58	0.96
2:36:00	481.09	443.19	37.89	0.94	38.55	0.96
2:37:00	481.09	443.19	37.89	0.94	38.55	0.96
2:38:00	481.15	443.19	37.96	0.94	38.61	0.96
2:39:00	481.20	443.19	38.00	0.95	38.66	0.96
2:40:00	481.20	443.19	38.00	0.95	38.66	0.96
2:41:00	481.20	443.19	38.00	0.95	38.66	0.96
2:42:00	481.20	443.19	38.00	0.95	38.66	0.96
2:43:00	481.15	443.19	37.96	0.94	38.61	0.96
2:44:00	481.17	443.19	37.98	0.95	38.63	0.96
2:45:00	481.15	443.19	37.96	0.94	38.61	0.96
2:46:00	481.12	443.19	37.93	0.94	38.58	0.96
2:47:00	481.10	443.19	37.90	0.94	38.56	0.96
2:48:00	481.12	443.19	37.93	0.94	38.58	0.96
2:49:00	481.12	443.19	37.93	0.94	38.58	0.96
2:50:00	481.12	443.19	37.93	0.94	38.58	0.96
2:51:00	481.06	443.19	37.87	0.94	38.52	0.96
2:52:00	481.06	443.19	37.87	0.94	38.52	0.96
2:53:00	481.05	443.19	37.86	0.94	38.51	0.96
2:54:00	481.06	443.19	37.87	0.94	38.52	0.96
2:55:00	481.03	443.19	37.84	0.94	38.49	0.96
2:56:00	481.01	443.19	37.82	0.94	38.47	0.96
2:57:00	481.00	443.19	37.81	0.94	38.46	0.96
2:58:00	481.01	443.19	37.82	0.94	38.47	0.96
2:59:00	481.03	443.19	37.84	0.94	38.49	0.96
3:00:00	481.03	443.19	37.84	0.94	38.49	0.96
3:01:00	481.03	443.19	37.84	0.94	38.49	0.96
3:02:00	481.03	443.19	37.84	0.94	38.49	0.96
3:03:00	481.05	443.19	37.86	0.94	38.51	0.96
3:04:00	481.06	443.19	37.87	0.94	38.52	0.96
3:05:00	481.05	443.19	37.86	0.94	38.51	0.96
3:06:00	481.03	443.19	37.84	0.94	38.49	0.96
3:07:00	481.05	443.19	37.86	0.94	38.51	0.96
3:08:00	481.05	443.19	37.86	0.94	38.51	0.96
3:09:00	481.01	443.19	37.82	0.94	38.47	0.96
3:10:00	481.00	443.19	37.81	0.94	38.46	0.96
3:11:00	480.98	443.19	37.78	0.94	38.44	0.96
3:12:00	480.94	443.19	37.75	0.94	38.40	0.96
3:13:00	480.91	443.19	37.72	0.94	38.37	0.95
3:14:00	480.89	443.19	37.69	0.94	38.35	0.95
3:15:00	480.88	443.19	37.68	0.94	38.34	0.95
3:16:00	480.89	443.19	37.69	0.94	38.35	0.95
3:17:00	480.86	443.19	37.66	0.94	38.31	0.95
3:18:00	480.82	443.19	37.63	0.94	38.28	0.95
3:19:00	480.79	443.19	37.60	0.94	38.25	0.95

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:20:00	480.79	443.19	37.60	0.94	38.25	0.95
3:21:00	480.77	443.19	37.57	0.94	38.23	0.95
3:22:00	480.76	443.19	37.56	0.93	38.22	0.95
3:23:00	480.77	443.19	37.57	0.94	38.23	0.95
3:24:00	480.76	443.19	37.56	0.93	38.22	0.95
3:25:00	480.76	443.19	37.56	0.93	38.22	0.95
3:26:00	480.76	443.19	37.56	0.93	38.22	0.95
3:27:00	480.70	443.19	37.51	0.93	38.16	0.95
3:28:00	480.70	443.19	37.51	0.93	38.16	0.95
3:29:00	480.74	443.19	37.54	0.93	38.19	0.95
3:30:00	480.70	443.24	37.46	0.93	38.16	0.95
3:31:00	480.68	443.24	37.44	0.93	38.14	0.95
3:32:00	480.68	443.24	37.44	0.93	38.14	0.95
3:33:00	480.68	443.24	37.44	0.93	38.14	0.95
3:34:00	480.67	443.24	37.43	0.93	38.13	0.95
3:35:00	480.67	443.24	37.43	0.93	38.13	0.95
3:36:00	480.65	443.24	37.41	0.93	38.11	0.95
3:37:00	480.64	443.24	37.40	0.93	38.10	0.95
3:38:00	480.59	443.24	37.35	0.93	38.05	0.95
3:39:00	480.53	443.24	37.29	0.93	37.99	0.95
3:40:00	480.47	443.24	37.23	0.93	37.93	0.94
3:41:00	480.46	443.24	37.22	0.93	37.92	0.94
3:42:00	480.44	443.24	37.20	0.93	37.90	0.94
3:43:00	480.47	443.24	37.23	0.93	37.93	0.94
3:44:00	480.44	443.24	37.20	0.93	37.90	0.94
3:45:00	480.44	443.24	37.20	0.93	37.90	0.94
3:46:00	480.41	443.24	37.17	0.92	37.87	0.94
3:47:00	480.38	443.24	37.14	0.92	37.84	0.94
3:48:00	480.37	443.24	37.13	0.92	37.83	0.94
3:49:00	480.35	443.24	37.11	0.92	37.81	0.94
3:50:00	480.32	443.24	37.08	0.92	37.78	0.94
3:51:00	480.29	443.24	37.05	0.92	37.74	0.94
3:52:00	480.26	443.24	37.02	0.92	37.72	0.94
3:53:00	480.25	443.24	37.01	0.92	37.71	0.94
3:54:00	480.21	443.24	36.97	0.92	37.67	0.94
3:55:00	480.21	443.24	36.97	0.92	37.67	0.94
3:56:00	480.18	443.24	36.94	0.92	37.63	0.94
3:57:00	480.16	443.24	36.92	0.92	37.62	0.94
3:58:00	480.11	443.24	36.87	0.92	37.57	0.93
3:59:00	480.09	443.24	36.85	0.92	37.55	0.93
4:00:00	480.02	443.24	36.78	0.92	37.48	0.93
4:01:00	480.02	443.24	36.78	0.92	37.48	0.93
4:02:00	479.96	443.24	36.72	0.91	37.41	0.93
4:03:00	479.93	443.24	36.69	0.91	37.39	0.93
4:04:00	479.90	443.24	36.66	0.91	37.36	0.93
4:05:00	479.97	443.24	36.73	0.91	37.43	0.93
4:06:00	479.93	443.24	36.69	0.91	37.39	0.93
4:07:00	479.96	443.24	36.72	0.91	37.41	0.93
4:08:00	479.96	443.24	36.72	0.91	37.41	0.93
4:09:00	479.96	443.24	36.72	0.91	37.41	0.93

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:10:00	479.91	443.24	36.67	0.91	37.37	0.93
4:11:00	479.93	443.24	36.69	0.91	37.39	0.93
4:12:00	479.93	443.24	36.69	0.91	37.39	0.93
4:13:00	479.88	443.24	36.64	0.91	37.34	0.93
4:14:00	479.90	443.24	36.66	0.91	37.36	0.93
4:15:00	479.88	443.24	36.64	0.91	37.34	0.93
4:16:00	479.88	443.24	36.64	0.91	37.34	0.93
4:17:00	479.85	443.24	36.61	0.91	37.30	0.93
4:18:00	479.82	443.24	36.58	0.91	37.28	0.93
4:19:00	479.79	443.24	36.55	0.91	37.25	0.93
4:20:00	479.76	443.24	36.52	0.91	37.22	0.93
4:21:00	479.73	443.24	36.49	0.91	37.18	0.93
4:22:00	479.74	443.24	36.50	0.91	37.20	0.93
4:23:00	479.74	443.24	36.50	0.91	37.20	0.93
4:24:00	479.70	443.24	36.46	0.91	37.16	0.92
4:25:00	479.69	443.24	36.45	0.91	37.15	0.92
4:26:00	479.70	443.24	36.46	0.91	37.16	0.92
4:27:00	479.70	443.24	36.46	0.91	37.16	0.92
4:28:00	479.73	443.24	36.49	0.91	37.18	0.93
4:29:00	479.73	443.24	36.49	0.91	37.18	0.93
4:30:00	479.74	443.51	36.22	0.90	37.20	0.93
4:31:00	479.73	443.51	36.21	0.90	37.18	0.93
4:32:00	479.70	443.51	36.19	0.90	37.16	0.92
4:33:00	479.69	443.51	36.18	0.90	37.15	0.92
4:34:00	479.70	443.51	36.19	0.90	37.16	0.92
4:35:00	479.73	443.51	36.21	0.90	37.18	0.93
4:36:00	479.70	443.51	36.19	0.90	37.16	0.92
4:37:00	479.76	443.51	36.25	0.90	37.22	0.93
4:38:00	479.85	443.51	36.33	0.90	37.30	0.93
4:39:00	479.90	443.51	36.39	0.91	37.36	0.93
4:40:00	479.93	443.51	36.42	0.91	37.39	0.93
4:41:00	480.00	443.51	36.49	0.91	37.46	0.93
4:42:00	480.03	443.51	36.52	0.91	37.49	0.93
4:43:00	480.08	443.51	36.56	0.91	37.54	0.93
4:44:00	480.09	443.51	36.58	0.91	37.55	0.93
4:45:00	480.12	443.51	36.61	0.91	37.58	0.94
4:46:00	480.08	443.51	36.56	0.91	37.54	0.93
4:47:00	480.05	443.51	36.54	0.91	37.51	0.93
4:48:00	480.08	443.51	36.56	0.91	37.54	0.93
4:49:00	480.05	443.51	36.54	0.91	37.51	0.93
4:50:00	480.00	443.51	36.49	0.91	37.46	0.93
4:51:00	479.99	443.51	36.48	0.91	37.45	0.93
4:52:00	480.00	443.51	36.49	0.91	37.46	0.93
4:53:00	480.02	443.51	36.51	0.91	37.48	0.93
4:54:00	480.00	443.51	36.49	0.91	37.46	0.93
4:55:00	480.00	443.51	36.49	0.91	37.46	0.93
4:56:00	479.99	443.51	36.48	0.91	37.45	0.93
4:57:00	479.93	443.51	36.42	0.91	37.39	0.93
4:58:00	479.88	443.51	36.37	0.91	37.34	0.93
4:59:00	479.87	443.51	36.36	0.90	37.33	0.93

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
5:00:00	479.87	443.51	36.36	0.90	37.33	0.93
5:01:00	479.88	443.51	36.37	0.91	37.34	0.93
5:02:00	479.87	443.51	36.36	0.90	37.33	0.93
5:03:00	479.91	443.51	36.40	0.91	37.37	0.93
5:04:00	479.91	443.51	36.40	0.91	37.37	0.93
5:05:00	479.97	443.51	36.46	0.91	37.43	0.93
5:06:00	479.96	443.51	36.44	0.91	37.42	0.93
5:07:00	479.97	443.51	36.46	0.91	37.43	0.93
5:08:00	480.00	443.51	36.49	0.91	37.46	0.93
5:09:00	480.02	443.51	36.51	0.91	37.48	0.93
5:10:00	480.00	443.51	36.49	0.91	37.46	0.93
5:11:00	480.02	443.51	36.51	0.91	37.48	0.93
5:12:00	480.02	443.51	36.51	0.91	37.48	0.93
5:13:00	480.00	443.51	36.49	0.91	37.46	0.93
5:14:00	480.02	443.51	36.51	0.91	37.48	0.93
5:15:00	480.00	443.51	36.49	0.91	37.46	0.93
5:16:00	480.02	443.51	36.51	0.91	37.48	0.93
5:17:00	480.00	443.51	36.49	0.91	37.46	0.93
5:18:00	480.00	443.51	36.49	0.91	37.46	0.93
5:19:00	479.99	443.51	36.48	0.91	37.45	0.93
5:20:00	479.93	443.51	36.42	0.91	37.39	0.93
5:21:00	479.91	443.51	36.40	0.91	37.37	0.93
5:22:00	479.88	443.51	36.37	0.91	37.34	0.93
5:23:00	479.82	443.51	36.31	0.90	37.28	0.93
5:24:00	479.76	443.51	36.25	0.90	37.22	0.93
5:25:00	479.70	443.51	36.19	0.90	37.16	0.92
5:26:00	479.64	443.51	36.13	0.90	37.10	0.92
5:27:00	479.58	443.51	36.07	0.90	37.04	0.92
5:28:00	479.55	443.51	36.04	0.90	37.01	0.92
5:29:00	479.53	443.51	36.02	0.90	36.99	0.92
5:30:00	478.53	442.91	35.62	0.89	35.99	0.90
5:31:00	478.56	442.91	35.66	0.89	36.02	0.90
5:32:00	478.60	442.91	35.69	0.89	36.05	0.90
5:33:00	478.65	442.91	35.75	0.89	36.11	0.90
5:34:00	478.65	442.91	35.75	0.89	36.11	0.90
5:35:00	478.65	442.91	35.75	0.89	36.11	0.90
5:36:00	478.65	442.91	35.75	0.89	36.11	0.90
5:37:00	478.65	442.91	35.75	0.89	36.11	0.90
5:38:00	478.65	442.91	35.75	0.89	36.11	0.90
5:39:00	478.65	442.91	35.75	0.89	36.11	0.90
5:40:00	478.65	442.91	35.75	0.89	36.11	0.90
5:41:00	478.67	442.91	35.77	0.89	36.13	0.90
5:42:00	478.68	442.91	35.78	0.89	36.14	0.90
5:52:00	478.68	442.91	35.78	0.89	36.14	0.90
6:02:00	478.74	442.91	35.83	0.89	36.20	0.90
6:12:00	478.60	442.91	35.69	0.89	36.05	0.90
6:22:00	478.63	442.91	35.72	0.89	36.09	0.90
6:32:00	478.51	443.76	34.75	0.86	35.97	0.90
6:42:00	478.51	443.76	34.75	0.86	35.97	0.90
6:52:00	478.46	443.76	34.71	0.86	35.92	0.89

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
7:02:00	478.46	443.76	34.71	0.86	35.92	0.89
7:12:00	478.63	443.76	34.87	0.87	36.09	0.90
7:22:00	478.68	443.76	34.93	0.87	36.14	0.90
7:32:00	477.96	443.30	34.66	0.86	35.42	0.88
7:42:00	477.95	443.30	34.65	0.86	35.41	0.88
7:52:00	478.07	443.30	34.77	0.87	35.53	0.88
8:02:00	478.14	443.30	34.84	0.87	35.60	0.89
8:12:00	478.17	443.30	34.87	0.87	35.63	0.89
8:22:00	477.77	443.30	34.47	0.86	35.23	0.88
8:32:00	477.87	443.84	34.03	0.85	35.33	0.88
8:42:00	477.89	443.84	34.05	0.85	35.35	0.88
8:52:00	477.65	443.84	33.81	0.84	35.11	0.87
9:02:00	477.44	443.84	33.60	0.84	34.90	0.87
9:12:00	477.52	443.84	33.68	0.84	34.98	0.87
9:22:00	477.54	443.84	33.70	0.84	35.00	0.87
9:32:00	476.55	443.23	33.31	0.83	34.00	0.85
9:42:00	476.49	443.23	33.26	0.83	33.95	0.84
9:52:00	476.47	443.23	33.24	0.83	33.93	0.84
10:02:00	476.49	443.23	33.26	0.83	33.95	0.84
10:12:00	476.49	443.23	33.26	0.83	33.95	0.84
10:22:00	476.40	443.23	33.17	0.83	33.86	0.84
10:32:00	476.37	443.61	32.76	0.82	33.83	0.84
10:42:00	476.23	443.61	32.62	0.81	33.69	0.84
10:52:00	476.25	443.61	32.64	0.81	33.71	0.84
11:02:00	476.17	443.61	32.56	0.81	33.63	0.84
11:12:00	476.14	443.61	32.53	0.81	33.60	0.84
11:22:00	476.17	443.61	32.56	0.81	33.63	0.84
11:32:00	476.17	443.88	32.29	0.80	33.63	0.84
11:42:00	476.17	443.88	32.29	0.80	33.63	0.84
11:52:00	476.19	443.88	32.32	0.80	33.65	0.84
12:02:00	476.08	443.88	32.21	0.80	33.54	0.83
12:12:00	476.02	443.88	32.14	0.80	33.48	0.83
12:22:00	476.03	443.88	32.15	0.80	33.49	0.83
12:32:00	474.97	443.32	31.64	0.79	32.43	0.81
12:42:00	474.89	443.32	31.57	0.79	32.35	0.80
12:52:00	474.83	443.32	31.51	0.78	32.29	0.80
13:02:00	474.79	443.32	31.47	0.78	32.25	0.80
13:12:00	474.79	443.32	31.47	0.78	32.25	0.80
13:22:00	474.88	443.32	31.55	0.79	32.34	0.80
13:32:00	475.00	443.76	31.24	0.78	32.46	0.81
13:42:00	475.03	443.76	31.27	0.78	32.49	0.81
13:52:00	475.05	443.76	31.30	0.78	32.51	0.81
14:02:00	475.05	443.76	31.30	0.78	32.51	0.81
14:12:00	475.09	443.76	31.33	0.78	32.55	0.81
14:22:00	475.09	443.76	31.33	0.78	32.55	0.81
14:32:00	474.03	443.31	30.73	0.76	31.49	0.78
14:42:00	474.03	443.31	30.73	0.76	31.49	0.78
14:52:00	473.99	443.31	30.68	0.76	31.45	0.78
15:02:00	473.99	443.31	30.68	0.76	31.45	0.78
15:12:00	474.03	443.31	30.73	0.76	31.49	0.78

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
15:22:00	474.08	443.31	30.77	0.77	31.54	0.78
15:32:00	473.22	442.84	30.38	0.76	30.68	0.76
15:42:00	473.26	442.84	30.41	0.76	30.72	0.76
15:52:00	473.32	442.84	30.48	0.76	30.78	0.77
16:02:00	473.43	442.84	30.59	0.76	30.89	0.77
16:12:00	473.41	442.84	30.57	0.76	30.87	0.77
16:22:00	473.37	442.84	30.52	0.76	30.82	0.77
16:32:00	473.41	443.53	29.88	0.74	30.87	0.77
16:42:00	473.40	443.53	29.86	0.74	30.86	0.77
16:52:00	473.49	443.53	29.95	0.75	30.95	0.77
17:02:00	473.62	443.53	30.08	0.75	31.08	0.77
17:12:00	473.67	443.53	30.14	0.75	31.13	0.77
17:22:00	473.71	443.53	30.17	0.75	31.17	0.78
17:32:00	472.76	443.23	29.53	0.73	30.22	0.75
17:42:00	472.86	443.23	29.63	0.74	30.32	0.75
17:52:00	472.90	443.23	29.66	0.74	30.35	0.76
18:02:00	472.98	443.23	29.75	0.74	30.44	0.76
18:12:00	473.15	443.23	29.91	0.74	30.61	0.76
18:22:00	473.25	443.23	30.01	0.75	30.71	0.76
18:32:00	472.26	442.65	29.61	0.74	29.72	0.74
18:42:00	472.35	442.65	29.70	0.74	29.81	0.74
18:52:00	472.35	442.65	29.70	0.74	29.81	0.74
19:02:00	472.34	442.65	29.69	0.74	29.80	0.74
19:12:00	472.28	442.65	29.63	0.74	29.74	0.74
19:22:00	472.25	442.65	29.60	0.74	29.71	0.74
19:32:00	472.26	443.12	29.14	0.73	29.72	0.74
19:42:00	472.26	443.12	29.14	0.73	29.72	0.74
19:52:00	472.30	443.12	29.19	0.73	29.76	0.74
20:02:00	472.34	443.12	29.22	0.73	29.80	0.74
20:12:00	472.35	443.12	29.23	0.73	29.81	0.74
20:22:00	472.35	443.12	29.23	0.73	29.81	0.74
20:32:00	471.38	442.35	29.04	0.72	28.84	0.72
20:42:00	471.41	442.35	29.06	0.72	28.86	0.72
20:52:00	471.38	442.35	29.04	0.72	28.84	0.72
21:02:00	471.35	442.35	29.00	0.72	28.81	0.72
21:12:00	471.33	442.35	28.98	0.72	28.79	0.72
21:22:00	471.24	442.35	28.89	0.72	28.70	0.71
21:32:00	471.15	442.41	28.74	0.72	28.61	0.71
21:42:00	471.11	442.41	28.70	0.71	28.57	0.71
21:52:00	471.09	442.41	28.67	0.71	28.55	0.71
22:02:00	471.03	442.41	28.62	0.71	28.49	0.71
22:12:00	470.91	442.41	28.50	0.71	28.37	0.71
22:22:00	470.85	442.41	28.43	0.71	28.30	0.70
22:32:00	470.67	442.49	28.18	0.70	28.13	0.70
22:42:00	470.58	442.49	28.09	0.70	28.04	0.70
22:52:00	470.56	442.49	28.07	0.70	28.02	0.70
23:02:00	470.44	442.49	27.95	0.70	27.90	0.69
23:12:00	470.37	442.49	27.88	0.69	27.83	0.69
23:22:00	470.32	442.49	27.83	0.69	27.78	0.69
23:32:00	470.29	442.57	27.72	0.69	27.74	0.69

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
23:42:00	470.23	442.57	27.66	0.69	27.69	0.69
23:52:00	470.13	442.57	27.56	0.69	27.59	0.69
24:02:00	470.06	442.57	27.49	0.68	27.51	0.68
24:12:00	470.02	442.57	27.45	0.68	27.48	0.68
24:22:00	469.91	442.57	27.34	0.68	27.37	0.68
24:32:00	469.85	442.65	27.19	0.68	27.31	0.68
24:42:00	469.81	442.65	27.16	0.68	27.27	0.68
24:52:00	469.74	442.65	27.09	0.67	27.20	0.68
25:02:00	469.69	442.65	27.04	0.67	27.15	0.68
25:12:00	469.70	442.65	27.05	0.67	27.16	0.68
25:22:00	469.58	442.65	29.73	0.67	27.04	0.67
25:32:00	469.55	442.76	26.79	0.67	27.01	0.67
25:42:00	469.48	442.76	26.72	0.66	29.74	0.67
25:52:00	469.36	442.76	26.60	0.66	26.82	0.67
26:02:00	469.32	442.76	26.56	0.66	26.78	0.67
26:12:00	469.28	442.76	26.51	0.66	26.74	0.67
26:22:00	469.23	442.76	26.47	0.66	26.69	0.66
26:32:00	469.20	442.90	26.30	0.65	26.66	0.66
26:42:00	469.23	442.90	26.33	0.66	26.69	0.66
26:52:00	469.18	442.90	26.27	0.65	26.64	0.66
27:02:00	469.11	442.90	26.21	0.65	26.57	0.66
27:12:00	469.06	442.90	26.15	0.65	26.52	0.66
27:22:00	468.94	442.90	26.03	0.65	26.39	0.66
27:32:00	468.94	443.20	25.73	0.64	26.39	0.66
27:42:00	468.96	443.20	25.76	0.64	26.42	0.66
27:52:00	468.94	443.20	25.73	0.64	26.39	0.66
28:02:00	468.90	443.20	25.70	0.64	26.36	0.66
28:12:00	468.97	443.20	25.77	0.64	26.43	0.66
28:22:00	469.02	443.20	25.82	0.64	26.48	0.66
28:32:00	467.97	442.49	25.48	0.63	25.43	0.63
28:42:00	467.97	442.49	25.48	0.63	25.43	0.63
28:52:00	468.04	442.49	25.55	0.64	25.50	0.63
29:02:00	467.99	442.49	25.50	0.63	25.45	0.63
29:12:00	468.03	442.49	25.54	0.64	25.49	0.63
29:22:00	467.99	442.49	25.50	0.63	25.45	0.63
29:32:00	468.06	442.64	25.42	0.63	25.52	0.64
29:42:00	468.09	442.64	25.45	0.63	25.55	0.64
29:52:00	468.04	442.64	25.40	0.63	25.50	0.63
30:02:00	467.99	442.64	25.35	0.63	25.45	0.63
30:12:00	467.88	442.64	25.24	0.63	25.34	0.63
30:22:00	467.83	442.64	25.19	0.63	25.29	0.63
30:32:00	467.80	442.68	25.11	0.62	25.25	0.63
30:42:00	467.74	442.68	25.06	0.62	25.20	0.63
30:52:00	467.71	442.68	25.02	0.62	25.17	0.63
31:02:00	467.76	442.68	25.08	0.62	25.22	0.63
31:12:00	467.65	442.68	24.97	0.62	25.11	0.62
31:22:00	467.53	442.68	24.85	0.62	24.99	0.62
31:32:00	467.50	442.69	24.81	0.62	24.96	0.62
31:42:00	467.39	442.69	24.70	0.61	24.85	0.62
31:52:00	467.24	442.69	24.55	0.61	24.69	0.61

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
32:02:00	467.17	442.69	24.48	0.61	24.63	0.61
32:12:00	467.18	442.69	24.49	0.61	24.64	0.61
32:22:00	467.11	442.69	24.43	0.61	24.57	0.61
32:32:00	467.02	442.71	24.30	0.60	24.47	0.61
32:42:00	466.94	442.71	24.23	0.60	24.40	0.61
32:52:00	466.94	442.71	24.23	0.60	24.40	0.61
33:02:00	466.87	442.71	24.16	0.60	24.33	0.61
33:12:00	466.70	442.71	23.98	0.60	24.16	0.60
33:22:00	466.58	442.71	23.86	0.59	24.04	0.60
33:32:00	466.66	442.84	23.83	0.59	24.12	0.60
33:42:00	466.61	442.84	23.77	0.59	24.07	0.60
33:52:00	466.58	442.84	23.74	0.59	24.04	0.60
34:02:00	466.49	442.84	23.65	0.59	23.95	0.60
34:12:00	466.43	442.84	23.60	0.59	23.89	0.59
34:22:00	466.49	442.84	23.65	0.59	23.95	0.60
34:32:00	465.35	441.99	23.36	0.58	22.81	0.57
34:42:00	465.35	441.99	23.36	0.58	22.81	0.57
34:52:00	465.39	441.99	23.40	0.58	22.85	0.57
35:02:00	465.35	441.99	23.36	0.58	22.81	0.57
35:12:00	465.35	441.99	23.36	0.58	22.81	0.57
35:22:00	465.39	441.99	23.40	0.58	22.85	0.57
35:32:00	465.39	442.01	23.38	0.58	22.85	0.57
35:42:00	465.33	442.01	23.31	0.58	22.79	0.57
35:52:00	465.26	442.01	23.25	0.58	22.72	0.57
36:02:00	465.17	442.01	23.16	0.58	22.63	0.56
36:12:00	465.12	442.01	23.10	0.57	22.58	0.56
36:22:00	465.00	442.01	22.98	0.57	22.46	0.56
36:32:00	465.00	442.07	22.92	0.57	22.46	0.56
36:42:00	464.91	442.07	22.84	0.57	22.37	0.56
36:52:00	464.80	442.07	22.73	0.57	22.26	0.55
37:02:00	464.78	442.07	22.71	0.57	22.24	0.55
37:12:00	464.73	442.07	22.66	0.56	22.19	0.55
37:22:00	464.66	442.07	22.58	0.56	22.12	0.55
37:32:00	464.65	442.20	22.44	0.56	22.10	0.55
37:42:00	464.54	442.20	22.33	0.56	22.00	0.55
37:52:00	464.57	442.20	22.37	0.56	22.03	0.55
38:02:00	464.56	442.20	22.35	0.56	22.02	0.55
38:12:00	464.53	442.20	22.32	0.56	21.98	0.55
38:22:00	464.47	442.20	22.27	0.55	21.93	0.55
38:32:00	464.47	442.39	22.08	0.55	21.93	0.55
38:42:00	464.48	442.39	22.10	0.55	21.94	0.55
38:52:00	464.39	442.39	22.01	0.55	21.85	0.54
39:02:00	464.42	442.39	22.03	0.55	21.87	0.54
39:12:00	464.42	442.39	22.03	0.55	21.87	0.54
39:22:00	464.42	442.39	22.03	0.55	21.87	0.54
39:32:00	464.33	442.47	21.86	0.54	21.79	0.54
39:42:00	464.39	442.47	21.92	0.55	21.85	0.54
39:52:00	464.44	442.47	21.97	0.55	21.90	0.54
40:02:00	464.39	442.47	21.92	0.55	21.85	0.54
40:12:00	464.26	442.47	21.79	0.54	21.72	0.54

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
40:22:00	464.18	442.47	21.71	0.54	21.64	0.54
40:32:00	464.15	442.69	21.46	0.53	21.61	0.54
40:42:00	464.09	442.69	21.40	0.53	21.55	0.54
40:52:00	464.09	442.69	21.40	0.53	21.55	0.54
41:02:00	464.12	442.69	21.43	0.53	21.58	0.54
41:12:00	464.10	442.69	21.41	0.53	21.56	0.54
41:22:00	464.15	442.69	21.46	0.53	21.61	0.54
41:32:00	463.11	441.74	21.37	0.53	20.57	0.51
41:42:00	463.17	441.74	21.43	0.53	20.62	0.51
41:52:00	463.07	441.74	21.33	0.53	20.53	0.51
42:02:00	463.07	441.74	21.33	0.53	20.53	0.51
42:12:00	463.04	441.74	21.31	0.53	20.50	0.51
42:22:00	463.01	441.74	21.28	0.53	20.47	0.51
42:32:00	462.90	441.72	21.18	0.53	20.36	0.51
42:42:00	462.80	441.72	21.08	0.52	20.26	0.50
42:52:00	462.77	441.72	21.05	0.52	20.23	0.50
43:02:00	462.68	441.72	20.96	0.52	20.14	0.50
43:12:00	462.65	441.72	20.93	0.52	20.11	0.50
43:22:00	462.59	441.72	20.88	0.52	20.05	0.50
43:32:00	463.54	442.57	20.97	0.52	21.00	0.52
43:42:00	463.44	442.57	20.87	0.52	20.90	0.52
43:52:00	463.37	442.57	20.80	0.52	20.83	0.52
44:02:00	463.26	442.57	20.69	0.51	20.72	0.52
44:12:00	463.26	442.57	20.69	0.51	20.72	0.52
44:22:00	463.09	442.57	20.52	0.51	20.55	0.51
44:32:00	463.07	442.32	20.74	0.52	20.52	0.51
44:42:00	462.86	442.32	20.54	0.51	20.32	0.51
44:52:00	462.68	442.32	20.36	0.51	20.14	0.50
45:02:00	462.46	442.32	20.14	0.50	19.92	0.50
45:12:00	462.37	442.32	20.05	0.50	19.83	0.49
45:22:00	462.32	442.32	20.00	0.50	19.78	0.49
45:32:00	462.21	441.86	20.34	0.51	19.67	0.49
45:42:00	462.12	441.86	20.26	0.50	19.58	0.49
45:52:00	462.00	441.86	20.14	0.50	19.46	0.48
46:02:00	461.86	441.86	19.99	0.50	19.32	0.48
46:12:00	461.62	441.86	19.75	0.49	19.07	0.47
46:22:00	461.35	441.86	19.49	0.48	18.81	0.47
46:32:00	462.16	442.37	19.80	0.49	19.62	0.49
46:42:00	462.02	442.37	19.65	0.49	19.48	0.48
46:52:00	461.92	442.37	19.55	0.49	19.38	0.48
47:02:00	461.78	442.37	19.41	0.48	19.24	0.48
47:12:00	461.58	442.37	19.21	0.48	19.04	0.47
47:22:00	461.37	442.37	19.01	0.47	18.83	0.47
47:32:00	462.09	443.18	18.90	0.47	19.54	0.49
47:42:00	461.94	443.18	18.76	0.47	19.40	0.48
47:52:00	461.80	443.18	18.62	0.46	19.26	0.48
48:02:00	461.65	443.18	18.46	0.46	19.10	0.48
48:12:00	461.56	443.18	18.38	0.46	19.02	0.47
48:22:00	461.54	443.18	18.36	0.46	19.00	0.47
48:32:00	461.56	443.00	18.56	0.46	19.02	0.47

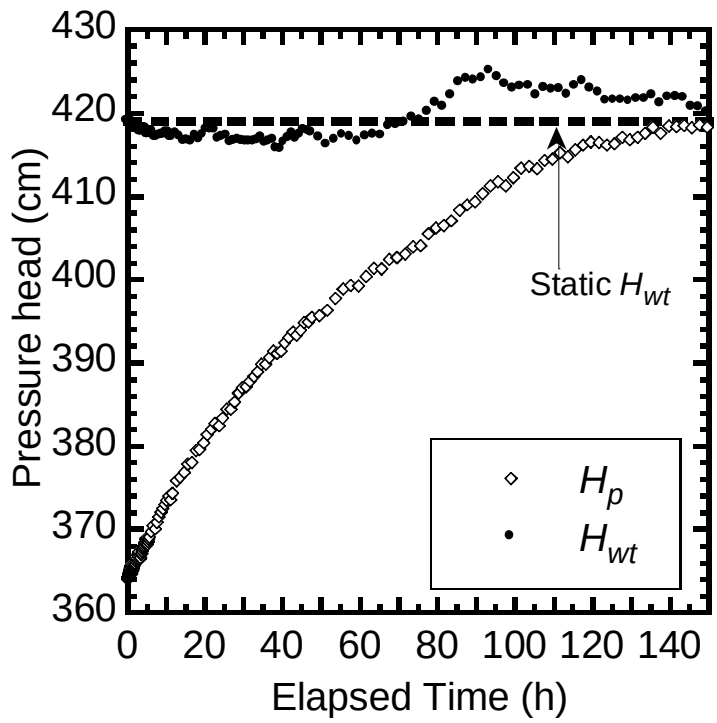
0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
48:42:00	461.54	443.00	18.54	0.46	19.00	0.47
48:52:00	461.38	443.00	18.38	0.46	18.84	0.47
49:02:00	461.27	443.00	18.27	0.45	18.73	0.47
49:12:00	461.27	443.00	18.27	0.45	18.73	0.47
49:22:00	461.18	443.00	18.18	0.45	18.64	0.46
49:32:00	461.04	442.83	18.21	0.45	18.50	0.46
49:42:00	460.95	442.83	18.12	0.45	18.41	0.46
49:52:00	460.80	442.83	17.97	0.45	18.26	0.45
50:02:00	460.89	442.83	18.06	0.45	18.35	0.46
50:12:00	460.86	442.83	18.03	0.45	18.31	0.46
50:22:00	460.77	442.83	17.94	0.45	18.23	0.45
50:32:00	460.68	442.77	17.91	0.45	18.14	0.45
50:42:00	460.47	442.77	17.70	0.44	17.93	0.45
50:52:00	460.41	442.77	17.63	0.44	17.86	0.44
51:02:00	460.33	442.77	17.56	0.44	17.79	0.44
51:12:00	460.27	442.77	17.50	0.44	17.73	0.44
51:22:00	460.33	442.77	17.56	0.44	17.79	0.44
51:32:00	460.36	442.69	17.67	0.44	17.82	0.44
51:42:00	460.33	442.69	17.64	0.44	17.79	0.44
51:52:00	460.26	442.69	17.57	0.44	17.72	0.44
52:02:00	460.07	442.69	17.38	0.43	17.52	0.44
52:12:00	459.92	442.69	17.23	0.43	17.38	0.43
52:22:00	459.97	442.69	17.28	0.43	17.42	0.43
52:32:00	460.00	442.68	17.31	0.43	17.46	0.43
52:42:00	459.86	442.68	17.17	0.43	17.32	0.43
52:52:00	459.74	442.68	17.05	0.42	17.19	0.43
53:02:00	459.82	442.68	17.14	0.43	17.28	0.43
53:12:00	459.80	442.68	17.12	0.43	17.26	0.43
53:22:00	459.79	442.68	17.11	0.43	17.25	0.43
53:32:00	459.82	442.66	17.16	0.43	17.28	0.43
53:42:00	459.74	442.66	17.08	0.42	17.19	0.43
53:52:00	459.59	442.66	16.93	0.42	17.05	0.42
54:02:00	459.50	442.66	16.85	0.42	16.96	0.42
54:12:00	459.49	442.66	16.84	0.42	16.95	0.42
54:22:00	459.50	442.66	16.85	0.42	16.96	0.42
54:32:00	459.47	442.49	16.98	0.42	16.93	0.42
54:42:00	459.44	442.49	16.95	0.42	16.90	0.42
54:52:00	459.33	442.49	16.84	0.42	16.79	0.42
55:02:00	459.28	442.49	16.80	0.42	16.74	0.42
55:12:00	459.21	442.49	16.72	0.42	16.67	0.41
55:22:00	459.09	442.49	16.60	0.41	16.55	0.41
55:32:00	459.93	443.43	16.51	0.41	17.39	0.43
55:42:00	459.81	443.43	16.39	0.41	17.27	0.43
55:52:00	459.72	443.43	16.30	0.41	17.18	0.43
56:02:00	459.69	443.43	16.26	0.40	17.15	0.43
56:12:00	459.67	443.43	16.24	0.40	17.13	0.43
56:22:00	459.64	443.43	16.21	0.40	17.09	0.43
56:32:00	459.55	443.35	16.19	0.40	17.01	0.42
56:42:00	459.49	443.35	16.14	0.40	16.95	0.42
56:52:00	459.47	443.35	16.12	0.40	16.93	0.42

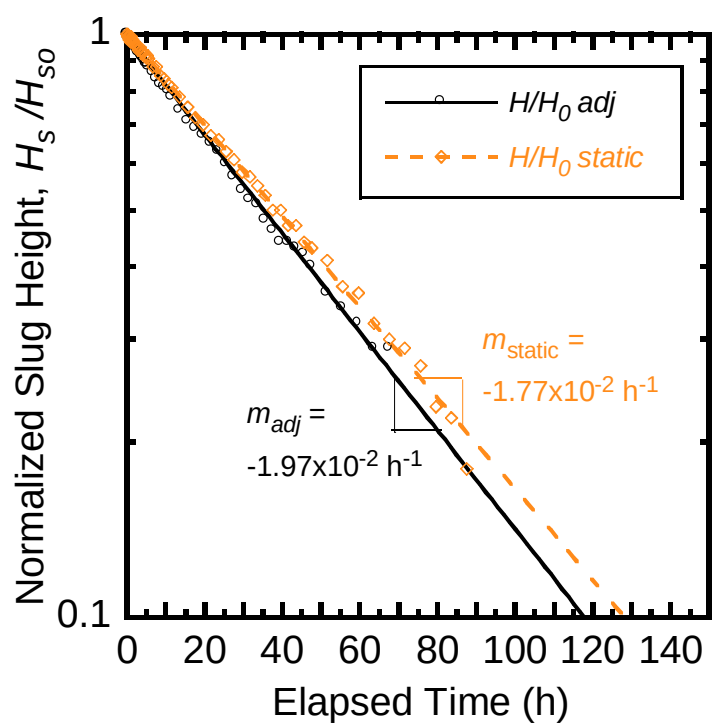
0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
57:02:00	459.46	443.35	16.11	0.40	16.92	0.42
57:12:00	459.37	443.35	16.02	0.40	16.83	0.42
57:22:00	459.31	443.35	15.95	0.40	16.77	0.42
57:32:00	459.23	443.17	16.06	0.40	16.69	0.42
57:42:00	459.23	443.17	16.06	0.40	16.69	0.42
57:52:00	459.13	443.17	15.96	0.40	16.59	0.41
58:02:00	459.09	443.17	15.91	0.40	16.55	0.41
58:12:00	458.90	443.17	15.73	0.39	16.36	0.41
58:22:00	458.81	443.17	15.64	0.39	16.27	0.40
58:32:00	458.72	443.01	15.72	0.39	16.18	0.40
58:42:00	458.70	443.01	15.69	0.39	16.16	0.40
58:52:00	458.52	443.01	15.51	0.39	15.97	0.40
59:02:00	458.39	443.01	15.39	0.38	15.85	0.39
59:12:00	458.41	443.01	15.40	0.38	15.86	0.39
59:22:00	458.39	443.01	15.39	0.38	15.85	0.39
59:32:00	458.37	442.63	15.74	0.39	15.83	0.39
59:42:00	458.26	442.63	15.63	0.39	15.72	0.39
59:52:00	458.08	442.63	15.44	0.38	15.54	0.39
60:02:00	457.93	442.63	15.30	0.38	15.39	0.38
60:12:00	457.73	442.63	15.09	0.38	15.18	0.38
60:22:00	457.55	442.63	14.91	0.37	15.01	0.37
60:32:00	458.48	443.47	15.01	0.37	15.94	0.40
60:42:00	458.31	443.47	14.83	0.37	15.76	0.39
60:52:00	458.20	443.47	14.72	0.37	15.65	0.39
61:02:00	458.03	443.47	14.56	0.36	15.49	0.39
61:12:00	458.03	443.47	14.56	0.36	15.49	0.39
61:22:00	458.01	443.47	14.54	0.36	15.47	0.38
61:32:00	457.89	443.40	14.49	0.36	15.35	0.38
61:42:00	457.87	443.40	14.47	0.36	15.33	0.38
61:52:00	457.86	443.40	14.46	0.36	15.31	0.38
62:02:00	457.89	443.40	14.49	0.36	15.35	0.38
62:12:00	457.78	443.40	14.38	0.36	15.24	0.38
62:22:00	457.77	443.40	14.37	0.36	15.23	0.38
62:32:00	457.71	443.25	14.46	0.36	15.17	0.38
62:42:00	457.60	443.25	14.35	0.36	15.06	0.37
62:52:00	457.57	443.25	14.32	0.36	15.03	0.37
63:02:00	457.54	443.25	14.29	0.36	15.00	0.37
63:12:00	457.50	443.25	14.25	0.35	14.96	0.37
63:22:00	457.43	443.25	14.18	0.35	14.89	0.37
63:32:00	457.37	443.12	14.25	0.35	14.83	0.37
63:42:00	457.28	443.12	14.16	0.35	14.74	0.37
63:52:00	457.08	443.12	13.96	0.35	14.54	0.36
64:02:00	456.96	443.12	13.84	0.34	14.41	0.36
64:12:00	456.89	443.12	13.77	0.34	14.35	0.36
64:22:00	456.90	443.12	13.78	0.34	14.36	0.36
64:32:00	456.80	443.34	13.46	0.34	14.26	0.35
64:42:00	456.77	443.34	13.43	0.33	14.23	0.35
64:52:00	456.77	443.34	13.43	0.33	14.23	0.35
65:02:00	456.75	443.34	13.41	0.33	14.21	0.35
65:12:00	456.86	443.34	13.52	0.34	14.32	0.36

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
65:22:00	456.90	443.34	13.56	0.34	14.36	0.36
65:32:00	456.02	442.46	13.57	0.34	13.48	0.34
65:42:00	456.05	442.46	13.59	0.34	13.50	0.34
66:12:00	456.08	442.46	13.62	0.34	13.54	0.34
66:42:00	456.06	442.40	13.65	0.34	13.52	0.34
67:12:00	456.01	442.40	13.61	0.34	13.47	0.34
67:42:00	456.78	443.18	13.60	0.34	14.24	0.35
68:12:00	456.48	443.18	13.31	0.33	13.94	0.35
68:42:00	456.19	442.89	13.30	0.33	13.65	0.34
69:12:00	455.81	442.89	12.92	0.32	13.27	0.33
69:42:00	456.48	443.41	13.07	0.33	13.94	0.35
70:12:00	456.01	443.41	12.60	0.31	13.47	0.34
70:42:00	455.50	442.79	12.72	0.32	12.96	0.32
71:12:00	454.82	442.79	12.04	0.30	12.28	0.31
71:42:00	455.24	443.41	11.83	0.29	12.70	0.32
72:12:00	454.84	443.41	11.43	0.28	12.30	0.31
72:42:00	455.52	444.16	11.36	0.28	12.98	0.32
73:12:00	455.38	444.16	11.22	0.28	12.84	0.32
73:42:00	454.96	444.07	10.89	0.27	12.42	0.31
74:12:00	455.04	444.07	10.97	0.27	12.50	0.31
74:42:00	455.00	444.03	10.97	0.27	12.46	0.31
75:12:00	454.78	444.03	10.75	0.27	12.24	0.30
75:42:00	454.81	443.99	10.82	0.27	12.27	0.31
76:12:00	454.65	443.99	10.65	0.27	12.11	0.30
76:42:00	453.49	442.97	10.52	0.26	10.95	0.27
77:12:00	453.63	442.97	10.65	0.27	11.09	0.28
77:42:00	453.49	442.83	10.67	0.27	10.95	0.27
78:42:00	454.05	443.67	10.39	0.26	11.51	0.29
79:42:00	453.60	443.39	10.21	0.25	11.06	0.28
80:42:00	452.99	442.98	10.01	0.25	10.45	0.26
81:42:00	453.18	443.62	9.57	0.24	10.64	0.26
82:42:00	453.58	444.19	9.39	0.23	11.04	0.27
83:42:00	452.72	443.71	9.01	0.22	10.18	0.25
84:42:00	452.85	444.18	8.67	0.22	10.31	0.26
85:42:00	451.86	443.76	8.10	0.20	9.32	0.23
86:42:00	452.24	444.37	7.86	0.20	9.70	0.24
87:42:00	451.59	444.09	7.50	0.19	9.05	0.23
88:42:00	452.31	444.89	7.42	0.18	9.77	0.24
89:42:00	451.88	444.53	7.35	0.18	9.34	0.23
90:42:00	451.26	444.08	7.18	0.18	8.72	0.22
91:42:00	451.59	444.47	7.11	0.18	9.05	0.23
92:42:00	451.49	444.84	6.65	0.17	8.95	0.22
93:42:00	451.51	444.89	6.62	0.16	8.97	0.22
94:42:00	452.19	445.85	6.33	0.16	9.64	0.24
95:42:00	451.42	445.97	5.44	0.14	8.88	0.22
96:42:00	451.21	446.14	5.06	0.13	8.67	0.22
97:42:00	451.24	446.48	4.75	0.12	8.70	0.22
98:42:00	450.45	445.86	4.58	0.11	7.91	0.20
99:42:00	450.52	446.63	3.90	0.10	7.98	0.20
100:42:00	450.41	446.40	4.01	0.10	7.87	0.20

0+57.0	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
101:42:00	450.22	446.92	3.30	0.08	7.68	0.19
103:42:00	449.96	445.47	4.49	0.11	7.42	0.18
105:42:00	449.31	444.20	5.11	0.13	6.77	0.17
107:42:00	449.14	443.73	5.41	0.13	6.60	0.16
109:42:00	448.80	443.76	5.04	0.13	6.26	0.16
111:42:00	448.55	443.21	5.34	0.13	6.01	0.15
113:42:00	448.52	442.92	5.60	0.14	5.98	0.15
115:42:00	448.82	442.70	6.11	0.15	6.28	0.16
117:42:00	449.02	442.65	6.37	0.16	6.48	0.16
119:42:00	447.92	442.26	5.65	0.14	5.38	0.13
121:42:00	447.46	442.54	4.92	0.12	4.91	0.12
123:42:00	447.30	442.58	4.72	0.12	4.76	0.12
125:42:00	447.11	442.19	4.92	0.12	4.57	0.11
127:42:00	447.09	441.28	5.81	0.14	4.55	0.11
129:42:00	446.14	440.55	5.59	0.14	3.59	0.09
131:42:00	446.07	440.94	5.13	0.13	3.53	0.09
133:42:00	445.41	440.74	4.67	0.12	2.87	0.07
135:42:00	445.34	440.38	4.96	0.12	2.80	0.07
137:42:00	444.80	440.18	4.62	0.11	2.26	0.06
139:42:00	445.94	440.95	5.00	0.12	3.40	0.08
141:42:00	445.62	440.95	4.68	0.12	3.08	0.08
143:42:00	446.16	442.64	3.52	0.09	3.61	0.09
145:42:00	444.58	441.90	2.67	0.07	2.03	0.05
147:42:00	443.95	441.97	1.98	0.05	1.41	0.04
149:42:00	443.47	441.20	2.27	0.06	0.93	0.02
151:42:00	443.05	440.65	2.40	0.06	0.51	0.01

Test Location (m)	**0+57.0**	**Effective Stress on date of test (kPa)**	**11.0**
Depth (m)	6.0	**Test # in well**	3
Well #	5	**Test Type**	Rate of Rise
Start Date of Test	10/20/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	419.0
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	54.9
k_{adj} (cm/s)	1.61E-07	**k_{static} (cm/s)**	1.45E-07





0+57.0	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	364.10	418.99	54.88	1.00	54.88	1.00
0:00:10	364.08	418.99	54.91	1.00	54.91	1.00
0:00:20	364.05	418.99	54.94	1.00	54.94	1.00
0:00:30	364.08	418.99	54.91	1.00	54.91	1.00
0:00:40	364.05	418.99	54.94	1.00	54.94	1.00
0:00:50	364.08	418.99	54.91	1.00	54.91	1.00
0:01:00	364.08	418.99	54.91	1.00	54.91	1.00
0:01:10	364.12	418.99	54.87	1.00	54.87	1.00
0:01:20	364.12	418.99	54.87	1.00	54.87	1.00
0:01:30	364.10	418.99	54.88	1.00	54.88	1.00
0:01:40	364.12	418.99	54.87	1.00	54.87	1.00
0:01:50	364.12	418.99	54.87	1.00	54.87	1.00
0:02:00	364.10	418.99	54.88	1.00	54.88	1.00
0:02:10	364.12	418.99	54.87	1.00	54.87	1.00
0:02:20	364.12	418.99	54.87	1.00	54.87	1.00
0:02:30	364.10	418.99	54.88	1.00	54.88	1.00
0:02:40	364.14	418.99	54.84	1.00	54.84	1.00
0:02:50	364.14	418.99	54.84	1.00	54.84	1.00
0:03:00	364.14	418.99	54.84	1.00	54.84	1.00
0:03:10	364.12	418.99	54.87	1.00	54.87	1.00
0:03:20	364.17	418.99	54.82	1.00	54.82	1.00
0:03:30	364.12	418.99	54.87	1.00	54.87	1.00
0:03:40	364.17	418.99	54.82	1.00	54.82	1.00
0:03:50	364.18	418.99	54.80	1.00	54.80	1.00
0:04:00	364.18	418.99	54.80	1.00	54.80	1.00
0:04:10	364.18	418.99	54.80	1.00	54.80	1.00
0:04:20	364.17	418.99	54.82	1.00	54.82	1.00
0:04:30	364.18	418.99	54.80	1.00	54.80	1.00
0:04:40	364.21	418.99	54.78	1.00	54.78	1.00
0:04:50	364.17	418.99	54.82	1.00	54.82	1.00
0:05:00	364.17	418.99	54.82	1.00	54.82	1.00
0:05:10	364.18	418.99	54.80	1.00	54.80	1.00
0:05:40	364.18	418.99	54.80	1.00	54.80	1.00
0:06:10	364.18	418.99	54.80	1.00	54.80	1.00
0:06:40	364.21	418.99	54.78	1.00	54.78	1.00
0:07:10	364.21	418.99	54.78	1.00	54.78	1.00
0:07:40	364.25	418.99	54.74	1.00	54.74	1.00
0:08:10	364.25	418.99	54.74	1.00	54.74	1.00
0:08:40	364.27	418.99	54.71	1.00	54.71	1.00
0:09:10	364.34	418.99	54.65	1.00	54.65	1.00
0:09:40	364.29	418.99	54.70	1.00	54.70	1.00
0:10:10	364.34	418.99	54.65	1.00	54.65	1.00
0:10:40	364.35	418.99	54.63	1.00	54.63	1.00
0:11:10	364.38	418.99	54.61	0.99	54.61	0.99
0:11:40	364.38	418.99	54.61	0.99	54.61	0.99
0:12:10	364.41	418.99	54.58	0.99	54.58	0.99
0:12:40	364.42	418.99	54.57	0.99	54.57	0.99
0:13:10	364.42	418.99	54.57	0.99	54.57	0.99
0:13:40	364.45	418.99	54.54	0.99	54.54	0.99
0:14:10	364.47	418.99	54.51	0.99	54.51	0.99

0+57.0	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:14:40	364.47	418.99	54.51	0.99	54.51	0.99
0:15:10	364.47	418.99	54.51	0.99	54.51	0.99
0:15:40	364.49	418.99	54.50	0.99	54.50	0.99
0:16:10	364.49	418.99	54.50	0.99	54.50	0.99
0:16:40	364.55	418.99	54.43	0.99	54.43	0.99
0:17:10	364.54	418.99	54.45	0.99	54.45	0.99
0:17:40	364.54	418.99	54.45	0.99	54.45	0.99
0:18:10	364.58	418.99	54.41	0.99	54.41	0.99
0:18:40	364.55	418.99	54.43	0.99	54.43	0.99
0:19:10	364.55	418.99	54.43	0.99	54.43	0.99
0:19:40	364.59	418.99	54.39	0.99	54.39	0.99
0:20:10	364.59	418.99	54.39	0.99	54.39	0.99
0:20:40	364.65	418.99	54.34	0.99	54.34	0.99
0:21:10	364.62	418.99	54.37	0.99	54.37	0.99
0:21:40	364.62	418.99	54.37	0.99	54.37	0.99
0:22:10	364.65	418.99	54.34	0.99	54.34	0.99
0:22:40	364.65	418.99	54.34	0.99	54.34	0.99
0:23:10	364.66	418.99	54.33	0.99	54.33	0.99
0:23:40	364.69	418.99	54.30	0.99	54.30	0.99
0:24:10	364.71	418.99	54.28	0.99	54.28	0.99
0:24:40	364.71	418.99	54.28	0.99	54.28	0.99
0:25:10	364.75	418.99	54.23	0.99	54.23	0.99
0:25:40	364.75	418.99	54.23	0.99	54.23	0.99
0:26:10	364.78	418.99	54.21	0.99	54.21	0.99
0:26:40	364.79	418.99	54.19	0.99	54.19	0.99
0:27:10	364.79	418.99	54.19	0.99	54.19	0.99
0:27:40	364.83	418.99	54.16	0.99	54.16	0.99
0:28:10	364.82	418.99	54.17	0.99	54.17	0.99
0:28:40	364.82	418.99	54.17	0.99	54.17	0.99
0:29:10	364.86	418.99	54.13	0.99	54.13	0.99
0:29:40	364.83	418.99	54.16	0.99	54.16	0.99
0:30:10	364.86	418.99	54.13	0.99	54.13	0.99
0:30:40	364.91	418.99	54.08	0.99	54.08	0.99
0:31:10	364.86	418.99	54.13	0.99	54.13	0.99
0:31:40	364.88	418.99	54.10	0.99	54.10	0.99
0:32:10	364.95	418.99	54.04	0.98	54.04	0.98
0:32:40	364.92	418.99	54.06	0.99	54.06	0.99
0:33:10	364.95	418.99	54.04	0.98	54.04	0.98
0:33:40	364.95	418.99	54.04	0.98	54.04	0.98
0:34:10	364.99	418.99	54.00	0.98	54.00	0.98
0:34:40	364.99	418.99	54.00	0.98	54.00	0.98
0:35:10	365.03	418.99	53.96	0.98	53.96	0.98
0:36:10	365.06	418.99	53.93	0.98	53.93	0.98
0:37:10	365.06	418.99	53.93	0.98	53.93	0.98
0:38:10	365.10	418.99	53.89	0.98	53.89	0.98
0:39:10	365.12	418.99	53.86	0.98	53.86	0.98
0:40:10	365.15	418.99	53.84	0.98	53.84	0.98
0:41:10	365.19	418.99	53.80	0.98	53.80	0.98
0:42:10	365.20	418.99	53.79	0.98	53.79	0.98
0:43:10	365.23	418.99	53.76	0.98	53.76	0.98

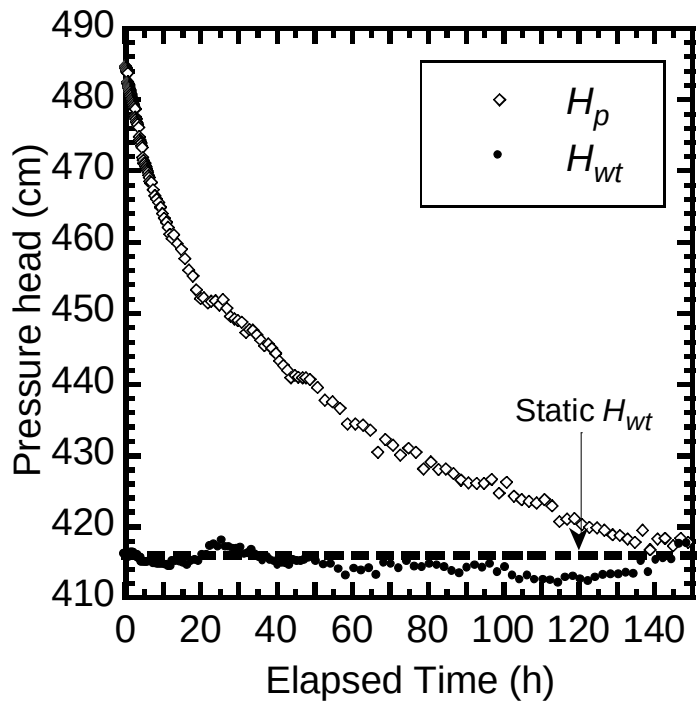
0+57.0	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:44:10	365.29	418.99	53.69	0.98	53.69	0.98
0:45:10	365.29	418.99	53.69	0.98	53.69	0.98
0:46:10	365.33	418.99	53.65	0.98	53.65	0.98
0:47:10	365.33	418.99	53.65	0.98	53.65	0.98
0:48:10	365.39	418.99	53.60	0.98	53.60	0.98
0:49:10	365.40	418.99	53.59	0.98	53.59	0.98
0:50:10	365.45	418.99	53.53	0.98	53.53	0.98
0:51:10	365.47	418.99	53.52	0.98	53.52	0.98
0:52:10	365.53	418.99	53.45	0.97	53.45	0.97
0:53:10	365.56	418.99	53.43	0.97	53.43	0.97
0:54:10	365.57	418.99	53.41	0.97	53.41	0.97
0:55:10	365.60	418.99	53.39	0.97	53.39	0.97
0:56:10	365.64	418.99	53.35	0.97	53.35	0.97
0:57:10	365.66	418.99	53.32	0.97	53.32	0.97
0:58:10	365.69	418.99	53.30	0.97	53.30	0.97
0:59:10	365.69	418.99	53.30	0.97	53.30	0.97
1:00:10	364.71	418.20	53.49	0.97	54.28	0.99
1:01:10	364.74	418.20	53.47	0.97	54.25	0.99
1:02:10	364.74	418.20	53.47	0.97	54.25	0.99
1:03:10	364.78	418.20	53.43	0.97	54.21	0.99
1:04:10	364.80	418.20	53.40	0.97	54.18	0.99
1:05:10	364.86	418.20	53.35	0.97	54.13	0.99
1:06:10	364.88	418.20	53.32	0.97	54.10	0.99
1:07:10	364.95	418.20	53.26	0.97	54.04	0.98
1:08:10	364.99	418.20	53.22	0.97	54.00	0.98
1:09:10	365.01	418.20	53.19	0.97	53.97	0.98
1:10:10	365.01	418.20	53.19	0.97	53.97	0.98
1:11:10	365.06	418.20	53.15	0.97	53.93	0.98
1:12:10	365.12	418.20	53.08	0.97	53.87	0.98
1:13:10	365.15	418.20	53.06	0.97	53.84	0.98
1:14:10	365.19	418.20	53.02	0.97	53.80	0.98
1:15:10	364.99	418.20	53.22	0.97	54.00	0.98
1:16:10	365.04	418.20	53.16	0.97	53.94	0.98
1:17:10	365.06	418.20	53.15	0.97	53.93	0.98
1:18:10	365.11	418.20	53.10	0.97	53.88	0.98
1:19:10	365.16	418.20	53.04	0.97	53.83	0.98
1:20:10	365.19	418.20	53.02	0.97	53.80	0.98
1:21:10	365.23	418.20	52.98	0.97	53.76	0.98
1:22:10	365.25	418.20	52.95	0.96	53.73	0.98
1:23:10	365.28	418.20	52.92	0.96	53.71	0.98
1:24:10	365.29	418.20	52.91	0.96	53.69	0.98
1:25:10	365.32	418.20	52.88	0.96	53.67	0.98
1:26:10	365.36	418.20	52.85	0.96	53.63	0.98
1:27:10	365.41	418.20	52.79	0.96	53.57	0.98
1:28:10	365.41	418.20	52.79	0.96	53.57	0.98
1:29:10	365.45	418.20	52.75	0.96	53.53	0.98
1:30:10	365.48	418.20	52.73	0.96	53.51	0.97
1:31:10	365.52	418.20	52.69	0.96	53.47	0.97
1:32:10	365.54	418.20	52.66	0.96	53.44	0.97
1:33:10	365.54	418.20	52.66	0.96	53.44	0.97

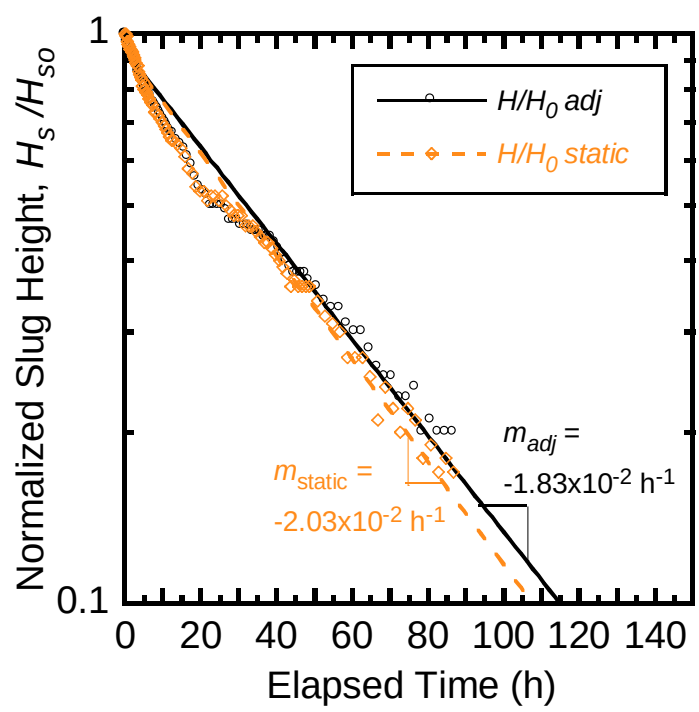
0+57.0	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:34:10	365.58	418.20	52.62	0.96	53.40	0.97
1:35:10	365.62	418.20	52.58	0.96	53.36	0.97
1:45:10	365.73	418.20	52.47	0.96	53.26	0.97
1:55:10	365.93	418.20	52.28	0.95	53.06	0.97
2:05:10	366.21	418.42	52.21	0.95	52.78	0.96
2:15:10	366.39	418.42	52.02	0.95	52.60	0.96
2:25:10	366.56	418.42	51.85	0.94	52.42	0.96
2:35:10	366.88	418.42	51.53	0.94	52.11	0.95
2:45:10	367.08	418.42	51.34	0.94	51.91	0.95
2:55:10	367.32	418.42	51.10	0.93	51.67	0.94
3:05:10	366.46	417.70	51.24	0.93	52.53	0.96
3:15:10	366.65	417.70	51.04	0.93	52.33	0.95
3:25:10	367.03	417.70	50.67	0.92	51.96	0.95
3:35:10	367.13	417.70	50.56	0.92	51.86	0.94
3:45:10	367.37	417.70	50.33	0.92	51.62	0.94
3:55:10	367.70	417.70	50.00	0.91	51.29	0.93
4:05:10	367.89	418.04	50.15	0.91	51.10	0.93
4:15:10	368.15	418.04	49.89	0.91	50.84	0.93
4:25:10	368.35	418.04	49.69	0.91	50.64	0.92
4:35:10	368.48	418.04	49.56	0.90	50.50	0.92
4:45:10	368.79	418.04	49.25	0.90	50.20	0.91
4:55:10	369.00	418.04	49.04	0.89	49.99	0.91
5:05:10	368.27	417.45	49.18	0.90	50.72	0.92
5:15:10	368.51	417.45	48.94	0.89	50.48	0.92
5:25:10	368.82	417.45	48.62	0.89	50.16	0.91
5:35:10	369.09	417.45	48.36	0.88	49.90	0.91
6:05:10	369.72	417.79	48.06	0.88	49.26	0.90
6:35:10	370.48	417.79	47.31	0.86	48.51	0.88
7:05:10	370.07	417.09	47.02	0.86	48.92	0.89
7:35:10	370.87	417.09	46.22	0.84	48.11	0.88
8:05:10	371.48	417.23	45.75	0.83	47.50	0.87
8:35:10	372.12	417.23	45.11	0.82	46.87	0.85
9:05:10	372.53	417.36	44.83	0.82	46.46	0.85
9:35:10	373.04	417.36	44.32	0.81	45.94	0.84
10:05:10	373.48	417.64	44.16	0.80	45.51	0.83
10:35:10	373.98	417.64	43.65	0.80	45.00	0.82
11:05:10	373.60	417.09	43.49	0.79	45.39	0.83
11:35:10	374.38	417.09	42.71	0.78	44.61	0.81
12:35:10	375.85	417.52	41.67	0.76	43.14	0.79
13:35:10	376.28	417.17	40.88	0.74	42.70	0.78
14:35:10	376.88	416.57	39.69	0.72	42.11	0.77
15:35:10	377.87	416.63	38.76	0.71	41.11	0.75
16:35:10	378.03	416.49	38.46	0.70	40.96	0.75
17:35:10	379.47	417.25	37.78	0.69	39.51	0.72
18:35:10	379.59	416.78	37.19	0.68	39.39	0.72
19:35:10	380.39	417.28	36.89	0.67	38.60	0.70
20:35:10	381.37	418.00	36.63	0.67	37.62	0.69
21:35:10	382.04	417.90	35.86	0.65	36.94	0.67
22:35:10	382.73	417.90	35.17	0.64	36.26	0.66
23:35:10	382.49	416.87	34.38	0.63	36.49	0.66

0+57.0	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
24:35:10	383.41	417.07	33.67	0.61	35.58	0.65
25:35:10	384.49	417.25	32.76	0.60	34.50	0.63
26:35:10	384.49	416.40	31.91	0.58	34.50	0.63
27:35:10	385.34	416.57	31.24	0.57	33.65	0.61
28:35:10	386.36	416.72	30.36	0.55	32.63	0.59
29:35:10	386.99	416.61	29.62	0.54	32.00	0.58
30:35:10	387.14	416.49	29.35	0.53	31.85	0.58
31:35:10	387.81	416.53	28.72	0.52	31.18	0.57
32:35:10	388.39	416.49	28.09	0.51	30.59	0.56
33:35:10	388.91	416.68	27.77	0.51	30.08	0.55
34:35:10	389.82	417.00	27.18	0.50	29.16	0.53
35:35:10	389.82	416.31	26.49	0.48	29.17	0.53
36:35:10	390.65	416.54	25.89	0.47	28.33	0.52
37:35:10	391.43	416.76	25.32	0.46	27.55	0.50
38:35:10	391.10	415.76	24.66	0.45	27.88	0.51
39:35:10	391.41	415.66	24.25	0.44	27.58	0.50
40:35:10	392.43	416.37	23.94	0.44	26.56	0.48
41:35:10	393.04	416.94	23.90	0.44	25.95	0.47
42:35:10	393.71	417.48	23.76	0.43	25.27	0.46
43:35:10	393.38	416.83	23.45	0.43	25.60	0.47
44:35:10	393.93	417.35	23.43	0.43	25.06	0.46
45:35:10	394.85	417.95	23.09	0.42	24.13	0.44
46:35:10	394.91	417.79	22.89	0.42	24.08	0.44
47:35:10	395.51	417.67	22.15	0.40	23.47	0.43
49:35:10	395.66	417.01	21.35	0.39	23.33	0.43
51:35:10	396.31	416.16	19.86	0.36	22.68	0.41
53:35:10	397.74	416.72	18.98	0.35	21.25	0.39
55:35:10	398.85	417.29	18.44	0.34	20.14	0.37
57:35:10	399.32	417.08	17.75	0.32	19.66	0.36
59:35:10	399.21	416.49	17.29	0.32	19.78	0.36
61:35:10	400.41	417.17	16.76	0.31	18.57	0.34
63:35:10	401.38	417.40	16.02	0.29	17.61	0.32
65:35:10	401.27	417.20	15.93	0.29	17.71	0.32
67:35:10	402.43	418.36	15.93	0.29	16.56	0.30
69:35:10	402.63	418.53	15.91	0.29	16.36	0.30
71:35:10	403.08	418.81	15.73	0.29	15.91	0.29
73:35:10	403.95	419.43	15.47	0.28	15.03	0.27
75:35:10	404.09	419.07	14.99	0.27	14.90	0.27
77:35:10	405.46	420.07	14.60	0.27	13.52	0.25
79:35:10	406.23	421.19	14.96	0.27	12.75	0.23
81:35:10	406.45	420.72	14.27	0.26	12.54	0.23
83:35:10	407.03	422.04	15.01	0.27	11.96	0.22
85:35:10	408.34	423.62	15.28	0.28	10.65	0.19
87:35:10	408.96	424.06	15.10	0.28	10.03	0.18
89:35:10	409.32	423.86	14.54	0.26	9.67	0.18
91:35:10	410.34	424.14	13.80	0.25	8.65	0.16
93:35:10	411.24	425.03	13.79	0.25	7.75	0.14
95:35:10	411.77	424.24	12.47	0.23	7.22	0.13
97:35:10	411.23	423.39	12.15	0.22	7.75	0.14
99:35:10	412.28	422.89	10.61	0.19	6.71	0.12

0+57.0	**6.0 m**					**Test #3**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
101:35:10	413.36	423.11	9.75	0.18	5.62	0.10
103:35:10	413.60	423.16	9.56	0.17	5.38	0.10
105:35:10	413.34	422.03	8.69	0.16	5.65	0.10
107:35:10	414.32	422.97	8.65	0.16	4.67	0.09
109:35:10	414.46	422.76	8.29	0.15	4.52	0.08
111:35:10	415.23	422.86	7.63	0.14	3.76	0.07
113:35:10	414.73	422.12	7.39	0.13	4.26	0.08
115:35:10	415.60	423.23	7.63	0.14	3.38	0.06
117:35:10	416.13	423.76	7.63	0.14	2.86	0.05
119:35:10	416.49	422.91	6.43	0.12	2.50	0.05
121:35:10	416.42	422.38	5.96	0.11	2.57	0.05
123:35:10	416.13	421.42	5.29	0.10	2.86	0.05
125:35:10	416.29	421.51	5.23	0.10	2.70	0.05
127:35:10	417.11	421.46	4.35	0.08	1.88	0.03
129:35:10	416.78	421.36	4.58	0.08	2.21	0.04
131:35:10	417.08	421.66	4.58	0.08	1.90	0.03
133:35:10	417.55	421.64	4.09	0.07	1.44	0.03
135:35:10	418.26	422.05	3.79	0.07	0.73	0.01
137:35:10	417.60	421.14	3.54	0.06	1.39	0.03
139:35:10	418.44	421.80	3.35	0.06	0.54	0.01
141:35:10	418.36	421.82	3.46	0.06	0.62	0.01
143:35:10	418.47	421.67	3.20	0.06	0.52	0.01
145:35:10	418.22	420.69	2.47	0.04	0.77	0.01
147:35:10	418.59	420.64	2.05	0.04	0.40	0.01

Test Location (m)	**0+57.0**	**Effective Stress on date of test (kPa)**	**11.0**
Depth (m)	6.0	**Test # in well**	4
Well #	5	**Test Type**	Rate of Fall
Start Date of Test	11/29/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	416.0
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	68.7
k_{adj} (cm/s)	1.50E-07	**k_{static} (cm/s)**	1.66E-07





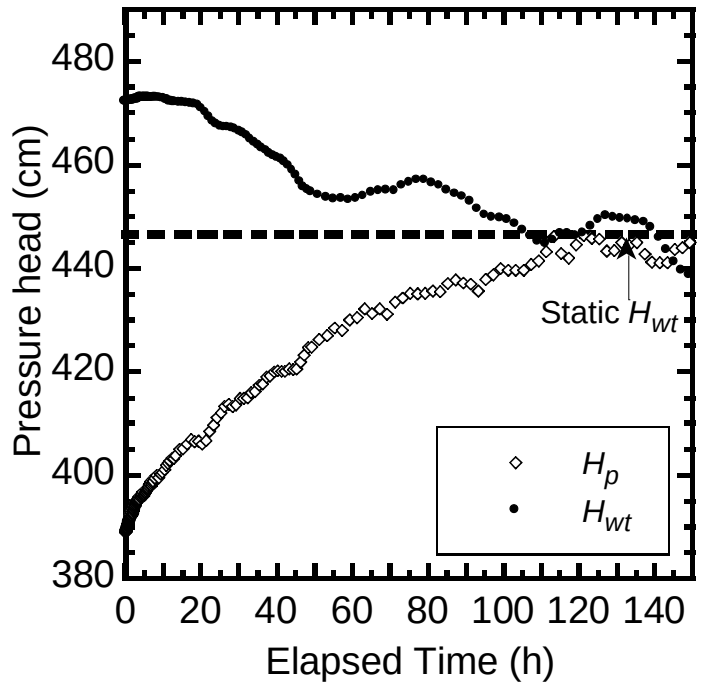
0+57.0	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	484.71	416.03	68.68	1.00	68.68	1.00
0:01:00	484.65	416.03	68.62	1.00	68.62	1.00
0:02:00	484.65	416.03	68.62	1.00	68.62	1.00
0:03:00	484.61	416.03	68.58	1.00	68.58	1.00
0:04:00	484.61	416.03	68.58	1.00	68.58	1.00
0:05:00	484.58	416.03	68.55	1.00	68.55	1.00
0:06:00	484.55	416.03	68.53	1.00	68.53	1.00
0:07:00	484.54	416.03	68.51	1.00	68.51	1.00
0:08:00	484.50	416.03	68.47	1.00	68.47	1.00
0:09:00	484.50	416.03	68.47	1.00	68.47	1.00
0:10:00	484.43	416.03	68.41	1.00	68.41	1.00
0:11:00	484.40	416.03	68.37	1.00	68.37	1.00
0:12:00	484.40	416.03	68.37	1.00	68.37	1.00
0:13:00	484.33	416.03	68.30	0.99	68.30	0.99
0:14:00	484.28	416.03	68.25	0.99	68.25	0.99
0:15:00	484.24	416.03	68.21	0.99	68.21	0.99
0:17:00	484.13	416.03	68.10	0.99	68.10	0.99
0:19:00	484.10	416.03	68.07	0.99	68.07	0.99
0:21:00	484.09	416.03	68.06	0.99	68.06	0.99
0:23:00	484.06	416.03	68.04	0.99	68.04	0.99
0:25:00	484.05	416.03	68.02	0.99	68.02	0.99
0:27:00	483.92	416.03	67.89	0.99	67.89	0.99
0:29:00	483.81	416.03	67.78	0.99	67.78	0.99
0:31:00	483.75	416.03	67.72	0.99	67.72	0.99
0:33:00	482.58	415.65	66.93	0.97	66.55	0.97
0:35:00	482.41	415.65	66.76	0.97	66.38	0.97
0:37:00	482.32	415.65	66.67	0.97	66.29	0.97
0:39:00	482.32	415.65	66.67	0.97	66.29	0.97
0:41:00	482.25	415.65	66.60	0.97	66.22	0.96
0:43:00	482.25	415.65	66.60	0.97	66.22	0.96
0:45:00	482.24	415.65	66.59	0.97	66.21	0.96
0:47:00	482.21	415.65	66.56	0.97	66.18	0.96
0:49:00	482.12	415.65	66.47	0.97	66.09	0.96
0:51:00	481.97	415.65	66.32	0.97	65.94	0.96
0:53:00	481.83	415.65	66.18	0.96	65.80	0.96
0:55:00	481.67	415.65	66.02	0.96	65.64	0.96
0:57:00	481.63	415.65	65.98	0.96	65.60	0.96
0:59:00	481.56	415.65	65.91	0.96	65.53	0.95
1:01:00	481.50	415.65	65.85	0.96	65.47	0.95
1:03:00	481.46	415.65	65.81	0.96	65.43	0.95
1:05:00	481.46	415.65	65.81	0.96	65.43	0.95
1:07:00	481.39	415.65	65.74	0.96	65.36	0.95
1:09:00	481.31	415.65	65.66	0.96	65.28	0.95
1:11:00	481.24	415.65	65.59	0.96	65.22	0.95
1:13:00	481.14	415.65	65.49	0.95	65.11	0.95
1:15:00	481.10	415.65	65.45	0.95	65.07	0.95
1:20:00	480.93	415.65	65.28	0.95	64.90	0.94
1:25:00	480.82	415.65	65.17	0.95	64.79	0.94
1:30:00	480.61	415.65	64.96	0.95	64.58	0.94
1:35:00	480.37	416.21	64.16	0.93	64.34	0.94

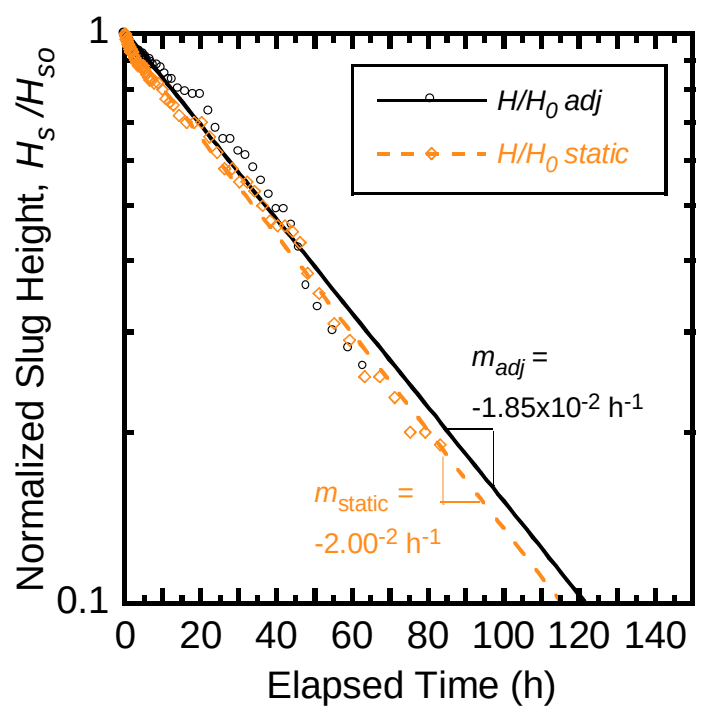
0+57.0	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:40:00	480.28	416.21	64.07	0.93	64.25	0.94
1:45:00	480.05	416.21	63.84	0.93	64.03	0.93
1:50:00	479.88	416.21	63.67	0.93	63.85	0.93
1:55:00	479.76	416.21	63.55	0.93	63.73	0.93
2:00:00	479.62	416.21	63.41	0.92	63.59	0.93
2:05:00	479.41	416.21	63.20	0.92	63.38	0.92
2:10:00	479.25	416.21	63.04	0.92	63.22	0.92
2:15:00	479.14	416.21	62.93	0.92	63.11	0.92
2:20:00	479.03	416.21	62.82	0.91	63.01	0.92
2:25:00	478.85	416.21	62.64	0.91	62.82	0.91
2:30:00	478.74	416.21	62.53	0.91	62.71	0.91
2:35:00	477.59	415.87	61.72	0.90	61.56	0.90
2:40:00	477.31	415.87	61.44	0.89	61.28	0.89
2:45:00	477.22	415.87	61.35	0.89	61.19	0.89
2:55:00	476.97	415.87	61.10	0.89	60.94	0.89
3:05:00	476.77	415.87	60.90	0.89	60.74	0.88
3:15:00	476.49	415.87	60.62	0.88	60.46	0.88
3:25:00	476.14	415.87	60.26	0.88	60.11	0.88
3:35:00	474.81	415.46	59.35	0.86	58.78	0.86
3:45:00	474.43	415.46	58.96	0.86	58.40	0.85
3:55:00	474.18	415.46	58.71	0.85	58.15	0.85
4:05:00	473.98	415.46	58.51	0.85	57.95	0.84
4:15:00	473.53	415.46	58.06	0.85	57.50	0.84
4:25:00	473.25	415.46	57.79	0.84	57.22	0.83
4:35:00	471.93	414.80	57.12	0.83	55.90	0.81
4:45:00	471.52	414.80	56.71	0.83	55.49	0.81
4:55:00	471.09	414.80	56.29	0.82	55.06	0.80
5:05:00	471.05	414.80	56.25	0.82	55.02	0.80
5:15:00	470.75	414.80	55.95	0.81	54.72	0.80
5:25:00	470.62	414.80	55.81	0.81	54.59	0.79
5:35:00	470.27	414.81	55.46	0.81	54.24	0.79
5:45:00	470.03	414.81	55.22	0.80	54.00	0.79
5:55:00	469.82	414.81	55.01	0.80	53.79	0.78
6:05:00	469.36	414.81	54.55	0.79	53.33	0.78
6:15:00	469.09	414.81	54.28	0.79	53.06	0.77
6:25:00	468.60	414.81	53.79	0.78	52.57	0.77
6:35:00	468.30	414.84	53.46	0.78	52.27	0.76
6:45:00	468.37	414.84	53.53	0.78	52.34	0.76
7:15:00	467.32	414.84	52.48	0.76	51.29	0.75
7:45:00	466.50	414.63	51.87	0.76	50.47	0.73
8:15:00	466.05	414.63	51.42	0.75	50.02	0.73
8:45:00	465.53	414.56	50.98	0.74	49.50	0.72
9:15:00	464.94	414.56	50.38	0.73	48.91	0.71
9:45:00	464.01	414.60	49.41	0.72	47.98	0.70
10:15:00	463.39	414.60	48.79	0.71	47.36	0.69
10:45:00	462.85	414.48	48.37	0.70	46.82	0.68
11:15:00	462.05	414.48	47.57	0.69	46.02	0.67
11:45:00	461.07	414.33	46.74	0.68	45.04	0.66
12:15:00	460.53	414.33	46.20	0.67	44.50	0.65
12:45:00	461.01	414.98	46.03	0.67	44.98	0.65

0+57.0	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
13:45:00	459.83	414.90	44.93	0.65	43.80	0.64
14:45:00	459.01	414.79	44.22	0.64	42.98	0.63
15:45:00	457.66	414.70	42.96	0.63	41.63	0.61
16:45:00	456.07	414.41	41.66	0.61	40.04	0.58
17:45:00	455.24	415.01	40.23	0.59	39.21	0.57
18:45:00	453.29	415.16	38.13	0.56	37.26	0.54
19:45:00	452.09	414.93	37.16	0.54	36.06	0.53
20:45:00	452.16	415.85	36.31	0.53	36.13	0.53
21:45:00	451.39	415.88	35.51	0.52	35.36	0.51
22:45:00	451.71	417.09	34.62	0.50	35.68	0.52
23:45:00	451.78	417.33	34.45	0.50	35.75	0.52
24:45:00	451.18	416.91	34.27	0.50	35.15	0.51
25:45:00	451.94	417.86	34.07	0.50	35.91	0.52
26:45:00	450.68	416.91	33.76	0.49	34.65	0.50
27:45:00	449.57	416.95	32.62	0.47	33.54	0.49
28:45:00	449.21	416.76	32.45	0.47	33.18	0.48
29:45:00	449.02	416.77	32.25	0.47	32.99	0.48
30:45:00	448.72	416.86	31.85	0.46	32.69	0.48
31:45:00	447.32	415.96	31.36	0.46	31.29	0.46
32:45:00	447.69	416.11	31.57	0.46	31.66	0.46
33:45:00	447.59	416.58	31.01	0.45	31.56	0.46
34:45:00	447.01	415.95	31.06	0.45	30.98	0.45
35:45:00	446.27	415.54	30.73	0.45	30.24	0.44
36:45:00	445.46	415.05	30.41	0.44	29.43	0.43
37:45:00	445.66	415.58	30.08	0.44	29.63	0.43
38:45:00	445.09	415.16	29.93	0.44	29.06	0.42
39:45:00	444.39	414.86	29.53	0.43	28.36	0.41
40:45:00	443.30	414.42	28.88	0.42	27.27	0.40
41:45:00	442.64	414.72	27.92	0.41	26.61	0.39
42:45:00	441.97	414.62	27.35	0.40	25.94	0.38
43:45:00	440.96	414.39	26.57	0.39	24.93	0.36
44:45:00	441.26	415.15	26.11	0.38	25.24	0.37
45:45:00	441.03	415.01	26.02	0.38	25.00	0.36
46:45:00	440.96	415.00	25.96	0.38	24.93	0.36
47:45:00	440.92	415.10	25.82	0.38	24.89	0.36
48:45:00	440.72	415.46	25.27	0.37	24.69	0.36
50:45:00	439.60	414.93	24.67	0.36	23.57	0.34
52:45:00	437.81	414.46	23.35	0.34	21.78	0.32
54:45:00	437.54	414.56	22.99	0.33	21.51	0.31
56:45:00	436.66	413.81	22.85	0.33	20.63	0.30
58:45:00	434.47	412.95	21.52	0.31	18.44	0.27
60:45:00	434.47	413.90	20.57	0.30	18.44	0.27
62:45:00	434.25	413.68	20.57	0.30	18.22	0.27
64:45:00	433.53	414.03	19.50	0.28	17.50	0.25
66:45:00	430.49	412.97	17.52	0.26	14.46	0.21
68:45:00	432.23	414.72	17.51	0.25	16.20	0.24
70:45:00	431.47	414.55	16.92	0.25	15.44	0.22
72:45:00	430.05	414.01	16.04	0.23	14.03	0.20
74:45:00	431.04	414.99	16.04	0.23	15.01	0.22
76:45:00	430.48	414.26	16.22	0.24	14.45	0.21

0+57.0	6.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
78:45:00	428.15	414.14	14.01	0.20	12.12	0.18
80:45:00	429.06	414.53	14.53	0.21	13.03	0.19
82:45:00	428.01	414.44	13.57	0.20	11.98	0.17
84:45:00	428.11	414.11	14.00	0.20	12.08	0.18
86:45:00	427.44	413.55	13.88	0.20	11.41	0.17
88:45:00	426.59	413.29	13.30	0.19	10.56	0.15
90:45:00	426.19	414.05	12.14	0.18	10.16	0.15
92:45:00	426.09	414.37	11.72	0.17	10.06	0.15
94:45:00	426.11	414.06	12.05	0.18	10.08	0.15
96:45:00	426.69	414.60	12.10	0.18	10.67	0.16
98:45:00	424.67	413.39	11.28	0.16	8.64	0.13
100:45:00	426.23	414.14	12.08	0.18	10.20	0.15
102:45:00	424.30	412.92	11.38	0.17	8.27	0.12
104:45:00	423.79	412.37	11.42	0.17	7.76	0.11
106:45:00	423.58	412.94	10.64	0.15	7.55	0.11
108:45:00	423.32	412.40	10.92	0.16	7.29	0.11
110:45:00	423.80	412.36	11.44	0.17	7.78	0.11
112:45:00	422.96	412.31	10.64	0.15	6.93	0.10
114:45:00	420.72	411.95	8.77	0.13	4.69	0.07
116:45:00	421.03	412.71	8.32	0.12	5.00	0.07
118:45:00	421.12	412.75	8.37	0.12	5.09	0.07
120:45:00	420.34	412.46	7.88	0.11	4.31	0.06
122:45:00	419.93	412.24	7.69	0.11	3.90	0.06
124:45:00	419.81	412.72	7.09	0.10	3.78	0.06
126:45:00	419.53	412.99	6.54	0.10	3.50	0.05
128:45:00	418.85	413.10	5.75	0.08	2.82	0.04
130:45:00	418.81	413.12	5.68	0.08	2.78	0.04
132:45:00	418.29	413.31	4.98	0.07	2.26	0.03
134:45:00	417.82	413.21	4.60	0.07	1.79	0.03
136:45:00	419.51	414.94	4.57	0.07	3.48	0.05
138:45:00	416.76	413.43	3.33	0.05	0.73	0.01
140:45:00	418.31	415.10	3.21	0.05	2.28	0.03
142:45:00	418.40	415.34	3.06	0.04	2.37	0.03
144:45:00	417.34	415.23	2.12	0.03	1.31	0.02
146:45:00	418.38	417.37	1.01	0.01	2.35	0.03
148:45:00	417.80	417.46	0.34	0.00	1.77	0.03
150:45:00	420.11	418.57	1.54	0.02	4.08	0.06

Test Location (m)	**0+57.0**	**Effective Stress on date of test (kPa)**	**11.2**
Depth (m)	6.0	**Test # in well**	5
Well #	5	**Test Type**	Rate of Rise
Start Date of Test	1/25/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	446.6
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	83.2/57.7
k_{adj} (cm/s)	1.52E-07	**k_{static} (cm/s)**	1.64E-07





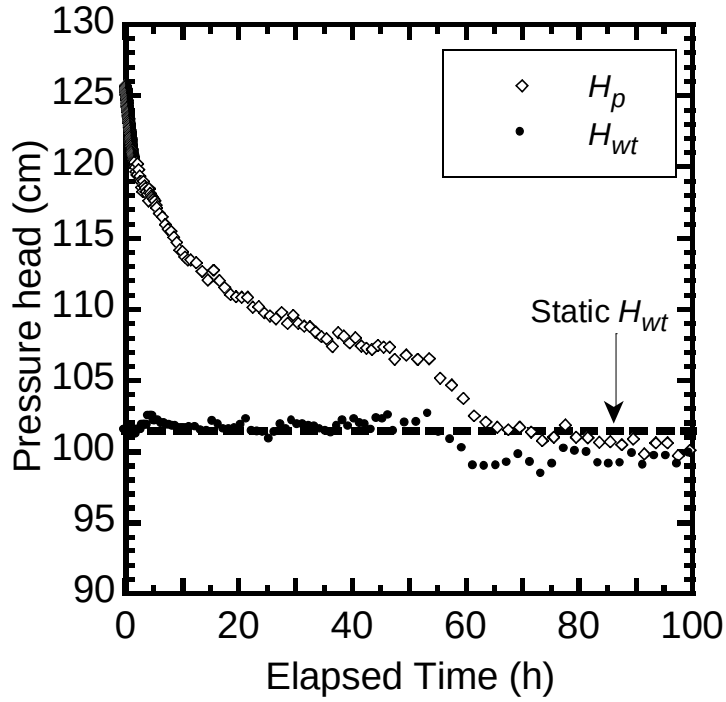
0+57.0	6.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	388.94	472.11	83.17	1.00	57.68	1.00
0:01:00	388.97	472.11	83.15	1.00	57.65	1.00
0:02:00	389.01	472.11	83.11	1.00	57.61	1.00
0:03:00	389.05	472.11	83.07	1.00	57.57	1.00
0:04:00	389.09	472.11	83.03	1.00	57.53	1.00
0:05:00	389.18	472.11	82.93	1.00	57.44	1.00
0:06:00	389.26	472.11	82.85	1.00	57.36	0.99
0:07:00	389.28	472.11	82.83	1.00	57.34	0.99
0:08:00	389.34	472.11	82.77	1.00	57.28	0.99
0:09:00	389.42	472.11	82.70	0.99	57.20	0.99
0:10:00	389.46	472.11	82.66	0.99	57.16	0.99
0:11:00	389.51	472.11	82.60	0.99	57.11	0.99
0:12:00	389.56	472.11	82.55	0.99	57.06	0.99
0:13:00	389.65	472.11	82.46	0.99	56.96	0.99
0:14:00	389.68	472.11	82.43	0.99	56.94	0.99
0:15:00	389.75	472.11	82.37	0.99	56.87	0.99
0:16:00	389.75	472.11	82.37	0.99	56.87	0.99
0:18:00	389.81	472.11	82.30	0.99	56.81	0.98
0:20:00	389.89	472.11	82.22	0.99	56.73	0.98
0:22:00	390.00	472.11	82.11	0.99	56.62	0.98
0:24:00	390.05	472.11	82.06	0.99	56.57	0.98
0:26:00	390.09	472.11	82.02	0.99	56.53	0.98
0:28:00	390.20	472.11	81.92	0.98	56.42	0.98
0:30:00	390.30	472.11	81.81	0.98	56.32	0.98
0:32:00	390.41	472.11	81.70	0.98	56.21	0.97
0:34:00	390.46	472.11	81.65	0.98	56.16	0.97
0:36:00	390.53	472.11	81.58	0.98	56.09	0.97
0:38:00	390.63	472.11	81.48	0.98	55.99	0.97
0:40:00	390.74	472.25	81.51	0.98	55.88	0.97
0:42:00	390.83	472.25	81.41	0.98	55.79	0.97
0:44:00	390.91	472.25	81.34	0.98	55.71	0.97
0:46:00	391.02	472.25	81.23	0.98	55.60	0.96
0:48:00	391.14	472.25	81.11	0.98	55.48	0.96
0:50:00	391.19	472.25	81.06	0.97	55.43	0.96
0:52:00	391.28	472.25	80.96	0.97	55.34	0.96
0:54:00	391.35	472.25	80.90	0.97	55.27	0.96
0:56:00	391.37	472.25	80.87	0.97	55.24	0.96
0:58:00	391.48	472.25	80.77	0.97	55.14	0.96
1:00:00	391.52	472.25	80.73	0.97	55.10	0.96
1:02:00	391.59	472.25	80.66	0.97	55.03	0.95
1:04:00	391.65	472.25	80.59	0.97	54.97	0.95
1:06:00	391.72	472.25	80.53	0.97	54.90	0.95
1:08:00	391.76	472.25	80.49	0.97	54.86	0.95
1:10:00	391.86	472.25	80.38	0.97	54.76	0.95
1:12:00	391.98	472.25	80.26	0.97	54.64	0.95
1:14:00	392.06	472.25	80.18	0.96	54.56	0.95
1:16:00	392.13	472.25	80.12	0.96	54.49	0.94
1:21:00	392.34	472.25	79.91	0.96	54.28	0.94
1:26:00	392.51	472.25	79.73	0.96	54.11	0.94
1:31:00	392.70	472.25	79.55	0.96	53.92	0.93

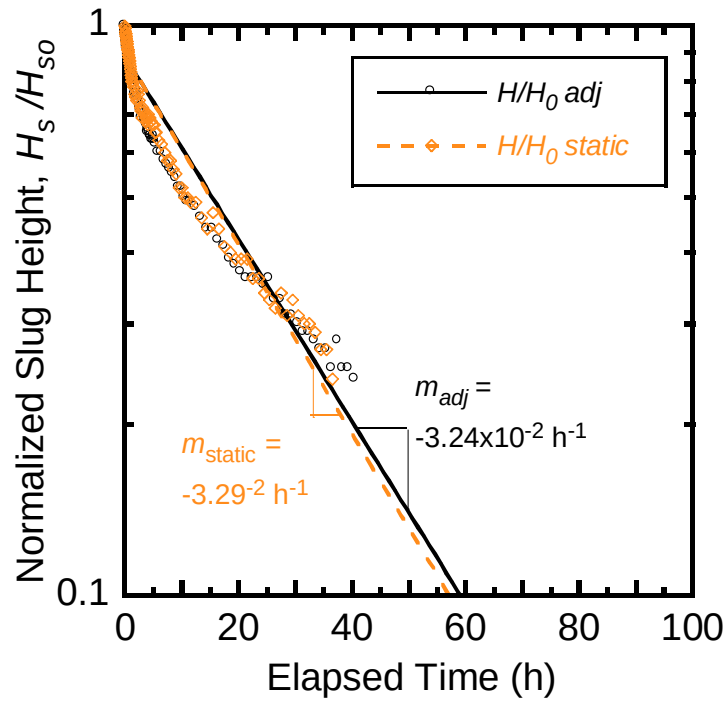
0+57.0	6.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:36:00	392.98	472.25	79.27	0.95	53.64	0.93
1:41:00	392.19	472.38	80.18	0.96	54.43	0.94
1:46:00	392.37	472.38	80.01	0.96	54.25	0.94
1:51:00	392.60	472.38	79.77	0.96	54.01	0.94
1:56:00	392.80	472.38	79.57	0.96	53.82	0.93
2:01:00	393.08	472.38	79.30	0.95	53.54	0.93
2:06:00	393.31	472.38	79.07	0.95	53.31	0.92
2:11:00	393.49	472.38	78.89	0.95	53.13	0.92
2:16:00	393.76	472.38	78.62	0.95	52.86	0.92
2:21:00	393.99	472.38	78.38	0.94	52.63	0.91
2:26:00	394.14	472.38	78.24	0.94	52.48	0.91
2:31:00	394.30	472.38	78.08	0.94	52.32	0.91
2:36:00	394.44	472.38	77.93	0.94	52.18	0.90
2:41:00	394.62	472.60	77.98	0.94	52.00	0.90
2:46:00	394.77	472.60	77.82	0.94	51.85	0.90
2:51:00	394.91	472.60	77.69	0.93	51.71	0.90
2:56:00	395.12	472.60	77.48	0.93	51.50	0.89
3:01:00	395.25	472.60	77.35	0.93	51.37	0.89
3:06:00	395.29	472.60	77.31	0.93	51.33	0.89
3:11:00	395.38	472.60	77.21	0.93	51.24	0.89
3:16:00	395.64	472.60	76.96	0.93	50.98	0.88
3:26:00	395.90	472.60	76.70	0.92	50.72	0.88
3:36:00	396.03	472.60	76.56	0.92	50.59	0.88
3:46:00	395.36	472.93	77.57	0.93	51.26	0.89
3:56:00	395.73	472.93	77.20	0.93	50.89	0.88
4:06:00	395.99	472.93	76.93	0.93	50.63	0.88
4:16:00	396.18	472.93	76.75	0.92	50.44	0.87
4:26:00	396.44	472.93	76.49	0.92	50.18	0.87
4:36:00	396.81	472.93	76.12	0.92	49.81	0.86
4:46:00	396.10	472.94	76.84	0.92	50.52	0.88
4:56:00	396.27	472.94	76.67	0.92	50.35	0.87
5:06:00	396.48	472.94	76.46	0.92	50.14	0.87
5:16:00	396.61	472.94	76.33	0.92	50.01	0.87
5:26:00	396.85	472.94	76.09	0.91	49.77	0.86
5:36:00	397.18	472.94	75.76	0.91	49.44	0.86
5:46:00	397.33	472.91	75.59	0.91	49.29	0.85
5:56:00	397.54	472.91	75.38	0.91	49.08	0.85
6:06:00	397.90	472.91	75.02	0.90	48.72	0.84
6:16:00	398.24	472.91	74.67	0.90	48.38	0.84
6:26:00	398.49	472.91	74.42	0.89	48.13	0.83
6:36:00	398.74	472.91	74.17	0.89	47.88	0.83
6:46:00	397.97	472.83	74.85	0.90	48.65	0.84
6:56:00	398.37	472.83	74.45	0.90	48.25	0.84
7:06:00	398.62	472.83	74.20	0.89	48.00	0.83
7:16:00	398.86	472.83	73.96	0.89	47.76	0.83
7:46:00	399.44	472.92	73.48	0.88	47.18	0.82
8:16:00	399.99	472.92	72.93	0.88	46.63	0.81
8:46:00	399.56	472.88	73.32	0.88	47.06	0.82
9:16:00	400.21	472.88	72.67	0.87	46.41	0.80
9:46:00	400.57	472.66	72.09	0.87	46.05	0.80

0+57.0	6.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
10:16:00	401.10	472.66	71.56	0.86	45.52	0.79
10:46:00	401.93	472.43	70.50	0.85	44.69	0.77
11:16:00	402.34	472.43	70.09	0.84	44.28	0.77
11:46:00	402.84	472.20	69.36	0.83	43.78	0.76
12:16:00	403.39	472.20	68.82	0.83	43.23	0.75
12:46:00	403.21	472.04	68.83	0.83	43.41	0.75
13:16:00	403.82	472.04	68.22	0.82	42.80	0.74
14:16:00	405.07	471.92	66.85	0.80	41.55	0.72
15:16:00	405.20	471.91	66.71	0.80	41.42	0.72
16:16:00	406.04	471.78	65.74	0.79	40.58	0.70
17:16:00	406.90	471.75	64.84	0.78	39.71	0.69
18:16:00	406.49	471.62	65.13	0.78	40.13	0.70
19:16:00	406.57	471.38	64.81	0.78	40.05	0.69
20:16:00	406.02	470.85	64.83	0.78	40.60	0.70
21:16:00	406.69	469.98	63.29	0.76	39.93	0.69
22:16:00	408.52	469.09	60.57	0.73	38.10	0.66
23:16:00	409.75	468.29	58.54	0.70	36.87	0.64
24:16:00	411.14	467.75	56.60	0.68	35.48	0.62
25:16:00	412.07	467.38	55.31	0.66	34.55	0.60
26:16:00	413.26	467.16	53.90	0.65	33.36	0.58
27:16:00	413.75	467.09	53.34	0.64	32.87	0.57
28:16:00	413.30	467.01	53.71	0.65	33.32	0.58
29:16:00	413.62	466.75	53.13	0.64	33.00	0.57
30:16:00	414.86	466.40	51.54	0.62	31.76	0.55
31:16:00	414.87	465.99	51.12	0.61	31.75	0.55
32:16:00	415.01	465.51	50.51	0.61	31.61	0.55
33:16:00	415.92	464.88	48.96	0.59	30.70	0.53
34:16:00	416.22	464.24	48.02	0.58	30.40	0.53
35:16:00	417.46	463.72	46.27	0.56	29.16	0.51
36:16:00	417.61	463.13	45.52	0.55	29.01	0.50
37:16:00	418.99	462.64	43.64	0.52	27.63	0.48
38:16:00	419.26	462.12	42.86	0.52	27.36	0.47
39:16:00	419.98	461.64	41.65	0.50	26.64	0.46
40:16:00	420.28	461.28	41.00	0.49	26.34	0.46
41:16:00	420.12	460.95	40.83	0.49	26.50	0.46
42:16:00	420.08	460.47	40.40	0.49	26.54	0.46
43:16:00	420.55	459.77	39.22	0.47	26.07	0.45
44:16:00	420.48	458.89	38.42	0.46	26.14	0.45
45:16:00	420.58	457.83	37.24	0.45	26.04	0.45
46:16:00	421.93	456.68	34.75	0.42	24.69	0.43
47:16:00	423.23	455.68	32.45	0.39	23.39	0.41
48:16:00	424.73	455.08	30.35	0.36	21.89	0.38
49:16:00	424.79	454.65	29.86	0.36	21.83	0.38
51:16:00	426.29	454.08	27.80	0.33	20.33	0.35
53:16:00	427.04	453.56	26.52	0.32	19.58	0.34
55:16:00	428.47	453.22	24.75	0.30	18.15	0.31
57:16:00	428.06	453.34	25.28	0.30	18.56	0.32
59:16:00	430.07	453.11	23.03	0.28	16.55	0.29
61:16:00	430.47	453.40	22.93	0.28	16.15	0.28
63:16:00	432.12	453.86	21.73	0.26	14.50	0.25

0+57.0	6.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
65:16:00	431.26	454.47	23.21	0.28	15.36	0.27
67:16:00	432.14	454.86	22.72	0.27	14.48	0.25
69:16:00	431.12	454.90	23.78	0.29	15.50	0.27
71:16:00	433.53	454.88	21.35	0.26	13.09	0.23
73:16:00	434.29	455.81	21.52	0.26	12.32	0.21
75:16:00	435.18	456.52	21.34	0.26	11.44	0.20
77:16:00	435.11	456.96	21.85	0.26	11.51	0.20
79:16:00	435.18	456.93	21.75	0.26	11.44	0.20
81:16:00	435.66	456.40	20.74	0.25	10.96	0.19
83:16:00	435.56	455.84	20.28	0.24	11.06	0.19
85:16:00	437.13	454.94	17.81	0.21	9.49	0.16
87:16:00	437.74	454.24	16.50	0.20	8.88	0.15
89:16:00	437.18	453.68	16.50	0.20	9.44	0.16
91:16:00	436.99	452.88	15.89	0.19	9.63	0.17
93:16:00	435.66	451.36	15.70	0.19	10.96	0.19
95:16:00	437.86	450.11	12.25	0.15	8.76	0.15
97:16:00	438.80	449.69	10.89	0.13	7.82	0.14
99:16:00	439.96	449.57	9.61	0.12	6.66	0.12
101:16:00	439.62	449.29	9.68	0.12	7.00	0.12
103:16:00	439.67	448.46	8.79	0.11	6.95	0.12
105:16:00	439.65	447.29	7.65	0.09	6.97	0.12
107:16:00	440.73	446.03	5.30	0.06	5.89	0.10
109:16:00	441.42	445.08	3.66	0.04	5.20	0.09
111:16:00	443.23	444.67	1.44	0.02	3.39	0.06
113:16:00	446.08	445.39	-0.69	-0.01	0.54	0.01
115:16:00	442.89	446.59	3.70	0.04	3.73	0.06
117:16:00	442.03	446.59	4.56	0.05	4.59	0.08
119:16:00	444.58	446.08	1.50	0.02	2.04	0.04
121:16:00	446.31	446.67	0.36	0.00	0.31	0.01
123:16:00	445.78	448.06	2.28	0.03	0.84	0.01
125:16:00	445.66	449.31	3.64	0.04	0.96	0.02
127:16:00	443.38	450.01	6.63	0.08	3.24	0.06
129:16:00	443.41	449.65	6.24	0.07	3.21	0.06
131:16:00	445.03	449.46	4.43	0.05	1.59	0.03
133:16:00	444.44	449.36	4.91	0.06	2.18	0.04
135:16:00	445.04	449.07	4.04	0.05	1.58	0.03
137:16:00	442.79	448.71	5.92	0.07	3.83	0.07
139:16:00	441.25	447.78	6.53	0.08	5.37	0.09
141:16:00	441.10	445.75	4.66	0.06	5.52	0.10
143:16:00	441.11	443.47	2.36	0.03	5.51	0.10
145:16:00	443.68	441.11	-2.58	-0.03	2.94	0.05
147:16:00	443.96	439.58	-4.38	-0.05	2.66	0.05
149:16:00	444.97	438.67	-6.30	-0.08	1.65	0.03
151:16:00	444.62	437.65	-6.97	-0.08	2.00	0.03

Test Location (m)	**0+57.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	1
Well #	6	**Test Type**	Rate of Fall
Start Date of Test	11/1/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	101.5
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	24.3
k_{adj} (cm/s)	2.66E-07	**k_{static} (cm/s)**	2.70E-07





0+57.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	125.72	101.46	24.27	1.00	24.27	1.00
0:00:30	125.64	101.46	24.19	1.00	24.19	1.00
0:01:00	125.62	101.46	24.16	1.00	24.16	1.00
0:01:30	125.55	101.46	24.09	0.99	24.09	0.99
0:02:00	125.50	101.46	24.04	0.99	24.04	0.99
0:02:30	125.46	101.46	24.00	0.99	24.00	0.99
0:03:00	125.42	101.46	23.96	0.99	23.96	0.99
0:03:30	125.37	101.46	23.91	0.99	23.91	0.99
0:04:00	125.34	101.46	23.88	0.98	23.88	0.98
0:04:30	125.33	101.46	23.87	0.98	23.87	0.98
0:05:00	125.30	101.46	23.84	0.98	23.84	0.98
0:05:30	125.26	101.46	23.80	0.98	23.80	0.98
0:06:00	125.21	101.46	23.75	0.98	23.75	0.98
0:06:30	125.14	101.46	23.68	0.98	23.68	0.98
0:07:00	125.13	101.46	23.67	0.98	23.67	0.98
0:07:30	125.10	101.46	23.64	0.97	23.64	0.97
0:08:00	125.05	101.46	23.59	0.97	23.59	0.97
0:08:30	125.04	101.46	23.58	0.97	23.58	0.97
0:09:00	124.98	101.46	23.53	0.97	23.53	0.97
0:09:30	124.94	101.46	23.49	0.97	23.49	0.97
0:10:00	124.89	101.46	23.43	0.97	23.43	0.97
0:10:30	124.88	101.46	23.42	0.97	23.42	0.97
0:11:00	124.82	101.46	23.37	0.96	23.37	0.96
0:11:30	124.78	101.46	23.33	0.96	23.33	0.96
0:12:00	124.76	101.46	23.30	0.96	23.30	0.96
0:12:30	124.76	101.46	23.30	0.96	23.30	0.96
0:13:00	124.69	101.46	23.23	0.96	23.23	0.96
0:13:30	124.69	101.46	23.23	0.96	23.23	0.96
0:14:00	124.63	101.46	23.17	0.95	23.17	0.95
0:14:30	124.56	101.46	23.10	0.95	23.10	0.95
0:15:00	124.53	101.46	23.08	0.95	23.08	0.95
0:15:30	124.49	101.46	23.04	0.95	23.04	0.95
0:16:00	124.43	101.46	22.97	0.95	22.97	0.95
0:16:30	124.38	101.46	22.92	0.94	22.92	0.94
0:17:00	124.34	101.46	22.88	0.94	22.88	0.94
0:17:30	124.34	101.46	22.88	0.94	22.88	0.94
0:18:00	124.30	101.46	22.84	0.94	22.84	0.94
0:18:30	124.30	101.46	22.84	0.94	22.84	0.94
0:19:00	124.24	101.46	22.78	0.94	22.78	0.94
0:19:30	124.20	101.46	22.75	0.94	22.75	0.94
0:20:00	124.20	101.46	22.75	0.94	22.75	0.94
0:20:30	124.14	101.46	22.68	0.93	22.68	0.93
0:21:00	124.14	101.46	22.68	0.93	22.68	0.93
0:21:30	124.07	101.46	22.61	0.93	22.61	0.93
0:22:00	124.02	101.46	22.56	0.93	22.56	0.93
0:22:30	124.00	101.46	22.55	0.93	22.55	0.93
0:23:00	123.98	101.46	22.52	0.93	22.52	0.93
0:23:30	123.94	101.46	22.48	0.93	22.48	0.93
0:24:00	123.91	101.46	22.45	0.93	22.45	0.93
0:24:30	123.85	101.46	22.39	0.92	22.39	0.92

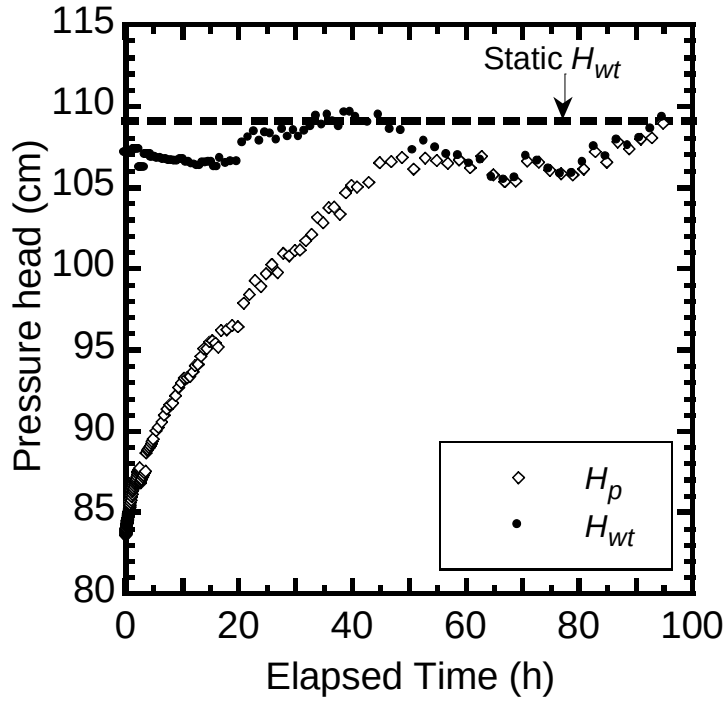
0+57.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:25:00	123.85	101.46	22.39	0.92	22.39	0.92
0:25:30	123.79	101.46	22.33	0.92	22.33	0.92
0:26:00	123.78	101.46	22.32	0.92	22.32	0.92
0:26:30	123.71	101.46	22.26	0.92	22.26	0.92
0:27:00	123.69	101.46	22.23	0.92	22.23	0.92
0:27:30	123.66	101.46	22.20	0.91	22.20	0.91
0:28:00	123.62	101.46	22.16	0.91	22.16	0.91
0:28:30	123.60	101.46	22.14	0.91	22.14	0.91
0:29:00	123.57	101.46	22.11	0.91	22.11	0.91
0:29:30	123.62	101.46	22.16	0.91	22.16	0.91
0:30:00	123.60	101.46	22.14	0.91	22.14	0.91
0:31:00	123.50	101.46	22.04	0.91	22.04	0.91
0:32:00	123.50	101.46	22.04	0.91	22.04	0.91
0:33:00	123.44	101.46	21.98	0.91	21.98	0.91
0:34:00	123.37	101.46	21.91	0.90	21.91	0.90
0:35:00	123.30	101.46	21.85	0.90	21.85	0.90
0:36:00	123.18	101.46	21.73	0.90	21.73	0.90
0:37:00	123.15	101.46	21.69	0.89	21.69	0.89
0:38:00	123.08	101.46	21.62	0.89	21.62	0.89
0:39:00	123.05	101.46	21.59	0.89	21.59	0.89
0:40:00	122.95	101.46	21.49	0.89	21.49	0.89
0:41:00	122.92	101.46	21.46	0.88	21.46	0.88
0:42:00	122.83	101.46	21.37	0.88	21.37	0.88
0:43:00	122.79	101.46	21.33	0.88	21.33	0.88
0:44:00	122.72	101.46	21.26	0.88	21.26	0.88
0:45:00	122.60	101.46	21.15	0.87	21.15	0.87
0:46:00	122.56	101.46	21.11	0.87	21.11	0.87
0:47:00	122.51	101.46	21.05	0.87	21.05	0.87
0:48:00	122.54	101.46	21.08	0.87	21.08	0.87
0:49:00	122.47	101.46	21.01	0.87	21.01	0.87
0:50:00	122.51	101.46	21.05	0.87	21.05	0.87
0:51:00	122.47	101.46	21.01	0.87	21.01	0.87
0:52:00	122.40	101.46	20.95	0.86	20.95	0.86
0:53:00	122.40	101.46	20.95	0.86	20.95	0.86
0:54:00	122.31	101.46	20.85	0.86	20.85	0.86
0:55:00	122.25	101.46	20.79	0.86	20.79	0.86
0:56:00	122.18	101.46	20.72	0.85	20.72	0.85
0:57:00	122.06	101.46	20.60	0.85	20.60	0.85
0:58:00	121.98	101.46	20.52	0.85	20.52	0.85
0:59:00	121.93	101.46	20.47	0.84	20.47	0.84
1:00:00	121.86	101.46	20.40	0.84	20.40	0.84
1:01:00	121.80	101.46	20.34	0.84	20.34	0.84
1:02:00	121.73	101.46	20.27	0.84	20.27	0.84
1:03:00	121.64	101.14	20.50	0.84	20.18	0.83
1:04:00	121.57	101.14	20.43	0.84	20.11	0.83
1:05:00	121.53	101.14	20.39	0.84	20.07	0.83
1:06:00	121.41	101.14	20.28	0.84	19.95	0.82
1:07:00	121.37	101.14	20.24	0.83	19.91	0.82
1:08:00	121.35	101.14	20.21	0.83	19.89	0.82
1:09:00	121.28	101.14	20.14	0.83	19.82	0.82

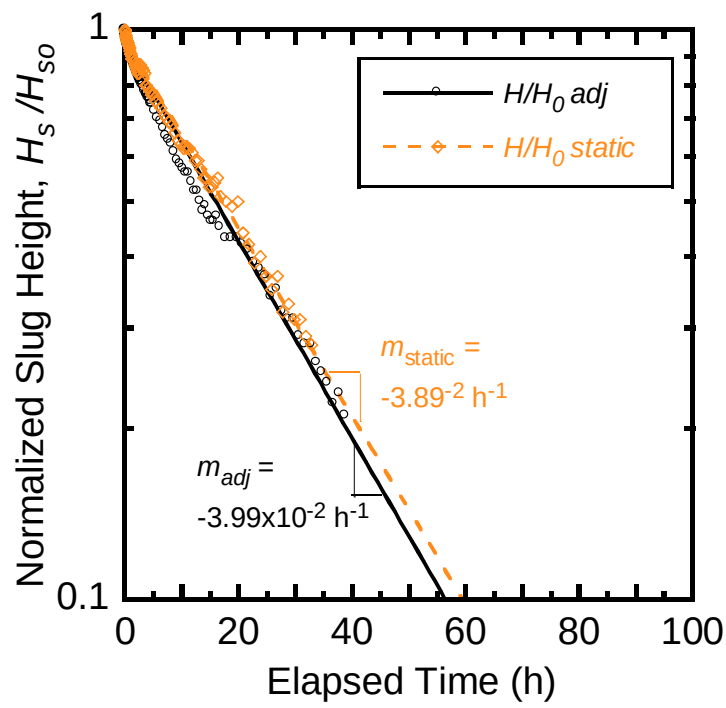
0+57.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:10:00	121.21	101.14	20.08	0.83	19.76	0.81
1:11:00	121.21	101.14	20.08	0.83	19.76	0.81
1:12:00	121.09	101.14	19.96	0.82	19.64	0.81
1:13:00	121.06	101.14	19.92	0.82	19.60	0.81
1:14:00	120.99	101.14	19.85	0.82	19.53	0.80
1:15:00	120.94	101.14	19.80	0.82	19.48	0.80
1:16:00	120.90	101.14	19.76	0.81	19.44	0.80
1:17:00	120.86	101.14	19.72	0.81	19.40	0.80
1:18:00	120.83	101.14	19.69	0.81	19.37	0.80
1:19:00	120.79	101.14	19.65	0.81	19.33	0.80
1:20:00	120.76	101.14	19.63	0.81	19.31	0.80
1:21:00	120.73	101.14	19.59	0.81	19.27	0.79
1:22:00	120.70	101.14	19.56	0.81	19.24	0.79
1:23:00	120.67	101.14	19.54	0.81	19.21	0.79
1:24:00	120.65	101.14	19.51	0.80	19.19	0.79
1:25:00	120.61	101.14	19.47	0.80	19.15	0.79
1:26:00	120.54	101.14	19.40	0.80	19.08	0.79
1:27:00	120.47	101.14	19.34	0.80	19.02	0.78
1:28:00	120.41	101.14	19.27	0.79	18.95	0.78
1:29:00	120.41	101.14	19.27	0.79	18.95	0.78
1:30:00	120.34	101.14	19.20	0.79	18.88	0.78
1:40:00	119.97	101.14	18.83	0.78	18.51	0.76
1:50:00	119.67	101.14	18.53	0.76	18.21	0.75
2:00:00	119.44	101.14	18.30	0.75	17.98	0.74
2:10:00	120.21	101.44	18.77	0.77	18.75	0.77
2:20:00	119.80	101.44	18.36	0.76	18.34	0.76
2:30:00	119.38	101.44	17.93	0.74	17.92	0.74
2:40:00	119.02	101.44	17.58	0.72	17.56	0.72
2:50:00	118.57	101.44	17.13	0.71	17.11	0.71
3:00:00	118.29	101.44	16.85	0.69	16.83	0.69
3:10:00	119.01	101.76	17.25	0.71	17.55	0.72
3:20:00	118.66	101.76	16.90	0.70	17.21	0.71
3:30:00	118.51	101.76	16.75	0.69	17.05	0.70
3:40:00	118.28	101.76	16.52	0.68	16.82	0.69
3:50:00	118.06	101.76	16.30	0.67	16.60	0.68
4:00:00	117.61	101.76	15.85	0.65	16.15	0.67
4:10:00	118.47	102.42	16.04	0.66	17.01	0.70
4:20:00	118.16	102.42	15.74	0.65	16.71	0.69
4:30:00	117.98	102.42	15.55	0.64	16.52	0.68
4:40:00	117.89	102.42	15.46	0.64	16.43	0.68
4:50:00	117.79	102.42	15.37	0.63	16.34	0.67
5:00:00	117.73	102.42	15.30	0.63	16.27	0.67
5:10:00	117.63	102.12	15.52	0.64	16.18	0.67
5:20:00	117.33	102.12	15.21	0.63	15.87	0.65
5:30:00	117.14	102.12	15.03	0.62	15.69	0.65
6:00:00	116.72	102.12	14.61	0.60	15.26	0.63
6:30:00	116.50	101.90	14.59	0.60	15.04	0.62
7:00:00	115.96	101.90	14.05	0.58	14.50	0.60
7:30:00	115.61	101.76	13.85	0.57	14.15	0.58
8:00:00	115.45	101.76	13.69	0.56	13.99	0.58

0+57.6	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
8:30:00	115.06	101.68	13.38	0.55	13.60	0.56
9:00:00	114.71	101.68	13.03	0.54	13.25	0.55
9:30:00	114.17	101.57	12.60	0.52	12.71	0.52
10:00:00	114.06	101.57	12.50	0.52	12.61	0.52
10:30:00	113.68	101.56	12.12	0.50	12.22	0.50
11:00:00	113.50	101.56	11.94	0.49	12.04	0.50
11:30:00	113.46	101.63	11.82	0.49	12.00	0.49
12:30:00	113.26	101.62	11.64	0.48	11.80	0.49
13:30:00	112.66	101.43	11.24	0.46	11.20	0.46
14:30:00	112.05	101.38	10.68	0.44	10.60	0.44
15:30:00	112.74	102.05	10.69	0.44	11.28	0.47
16:30:00	112.03	101.81	10.21	0.42	10.57	0.44
17:30:00	111.53	101.51	10.01	0.41	10.07	0.41
18:30:00	111.05	101.49	9.56	0.39	9.59	0.40
19:30:00	110.89	101.59	9.30	0.38	9.43	0.39
20:30:00	110.82	101.77	9.06	0.37	9.37	0.39
21:30:00	110.85	102.18	8.67	0.36	9.39	0.39
22:30:00	110.16	101.37	8.79	0.36	8.70	0.36
23:30:00	110.19	101.35	8.84	0.36	8.73	0.36
24:30:00	109.74	101.28	8.46	0.35	8.28	0.34
25:30:00	109.54	100.82	8.72	0.36	8.08	0.33
26:30:00	109.32	101.30	8.02	0.33	7.86	0.32
27:30:00	109.76	101.83	7.92	0.33	8.30	0.34
28:30:00	109.03	101.50	7.53	0.31	7.57	0.31
29:30:00	109.58	102.10	7.48	0.31	8.13	0.33
30:30:00	109.00	101.82	7.18	0.30	7.54	0.31
31:30:00	108.82	101.82	7.00	0.29	7.36	0.30
32:30:00	108.75	101.71	7.04	0.29	7.29	0.30
33:30:00	108.41	101.66	6.74	0.28	6.95	0.29
34:30:00	108.08	101.50	6.57	0.27	6.62	0.27
35:30:00	107.93	101.37	6.56	0.27	6.47	0.27
36:30:00	107.38	101.26	6.12	0.25	5.92	0.24
37:30:00	108.37	101.68	6.69	0.28	6.91	0.28
38:30:00	108.13	102.11	6.03	0.25	6.67	0.28
39:30:00	107.63	101.66	5.97	0.25	6.17	0.25
40:30:00	108.01	102.19	5.82	0.24	6.56	0.27
41:30:00	107.43	101.89	5.54	0.23	5.98	0.25
42:30:00	107.26	101.82	5.44	0.22	5.80	0.24
43:30:00	107.17	101.44	5.73	0.24	5.71	0.24
44:30:00	107.46	102.25	5.21	0.21	6.00	0.25
45:30:00	107.33	102.18	5.15	0.21	5.87	0.24
46:30:00	107.33	102.46	4.86	0.20	5.87	0.24
47:30:00	106.51	101.36	5.15	0.21	5.05	0.21
49:30:00	106.79	101.96	4.83	0.20	5.33	0.22
51:30:00	106.50	101.99	4.51	0.19	5.04	0.21
53:30:00	106.53	102.58	3.95	0.16	5.08	0.21
55:30:00	105.14	101.30	3.84	0.16	3.68	0.15
57:30:00	104.67	100.75	3.92	0.16	3.22	0.13
59:30:00	103.72	100.15	3.57	0.15	2.26	0.09
61:30:00	102.49	98.96	3.52	0.15	1.03	0.04

0+57.6	**3.0 m**					**Test #1**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
63:30:00	102.06	98.91	3.16	0.13	0.61	0.02
65:30:00	101.68	98.92	2.76	0.11	0.22	0.01
67:30:00	101.55	99.12	2.43	0.10	0.09	0.00
69:30:00	101.72	99.69	2.03	0.08	0.26	0.01
71:30:00	101.39	99.17	2.22	0.09	-0.07	0.00
73:30:00	100.75	98.35	2.41	0.10	-0.70	-0.03
75:30:00	101.01	99.06	1.95	0.08	-0.45	-0.02
77:30:00	101.86	100.12	1.73	0.07	0.40	0.02
79:30:00	101.00	99.94	1.06	0.04	-0.46	-0.02
81:30:00	100.96	99.89	1.07	0.04	-0.50	-0.02
83:30:00	100.64	99.10	1.54	0.06	-0.82	-0.03
85:30:00	100.68	99.08	1.59	0.07	-0.78	-0.03
87:30:00	100.49	99.09	1.40	0.06	-0.97	-0.04
89:30:00	100.89	99.77	1.12	0.05	-0.57	-0.02
91:30:00	99.83	98.99	0.84	0.03	-1.62	-0.07
93:30:00	100.60	99.60	1.00	0.04	-0.86	-0.04
95:30:00	100.60	99.58	1.02	0.04	-0.86	-0.04
97:30:00	99.72	99.08	0.64	0.03	-1.74	-0.07
99:30:00	100.08	99.82	0.25	0.01	-1.38	-0.06

Test Location (m)	**0+57.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	2
Well #	6	**Test Type**	Rate of Rise
Start Date of Test	11/14/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	109.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	23.5/25.5
k_{adj} (cm/s)	3.28E-07	**k_{static} (cm/s)**	3.19E-07





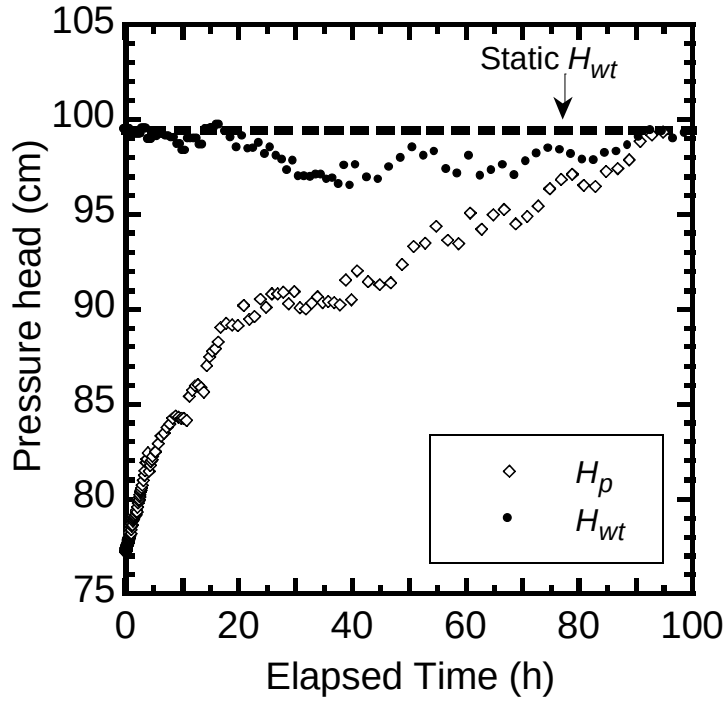
0+57.6	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	83.58	107.07	23.48	1.00	25.52	1.00
0:00:30	83.58	107.07	23.48	1.00	25.52	1.00
0:01:00	83.64	107.07	23.43	1.00	25.47	1.00
0:01:30	83.63	107.07	23.44	1.00	25.48	1.00
0:02:00	83.68	107.07	23.38	1.00	25.42	1.00
0:02:30	83.72	107.07	23.35	0.99	25.39	0.99
0:03:00	83.74	107.07	23.33	0.99	25.37	0.99
0:03:30	83.77	107.07	23.29	0.99	25.33	0.99
0:04:00	83.82	107.07	23.25	0.99	25.29	0.99
0:04:30	83.85	107.07	23.22	0.99	25.25	0.99
0:05:00	83.87	107.07	23.19	0.99	25.23	0.99
0:05:30	83.91	107.07	23.16	0.99	25.20	0.99
0:06:00	83.96	107.07	23.11	0.98	25.14	0.99
0:06:30	83.98	107.07	23.08	0.98	25.12	0.98
0:07:00	84.01	107.07	23.06	0.98	25.10	0.98
0:07:30	84.04	107.07	23.03	0.98	25.07	0.98
0:08:00	84.07	107.07	22.99	0.98	25.03	0.98
0:08:30	84.12	107.07	22.95	0.98	24.99	0.98
0:09:00	84.12	107.07	22.95	0.98	24.99	0.98
0:09:30	84.17	107.07	22.89	0.97	24.93	0.98
0:10:00	84.20	107.07	22.86	0.97	24.90	0.98
0:10:30	84.19	107.07	22.87	0.97	24.91	0.98
0:11:00	84.20	107.07	22.86	0.97	24.90	0.98
0:11:30	84.25	107.07	22.82	0.97	24.86	0.97
0:12:00	84.25	107.07	22.82	0.97	24.86	0.97
0:12:30	84.27	107.07	22.79	0.97	24.83	0.97
0:13:00	84.30	107.07	22.76	0.97	24.80	0.97
0:13:30	84.31	107.07	22.76	0.97	24.80	0.97
0:14:00	84.33	107.07	22.74	0.97	24.78	0.97
0:14:30	84.36	107.07	22.71	0.97	24.75	0.97
0:15:00	84.39	107.07	22.67	0.97	24.71	0.97
0:15:30	84.44	107.07	22.63	0.96	24.67	0.97
0:16:00	84.44	107.07	22.63	0.96	24.67	0.97
0:16:30	84.49	107.07	22.57	0.96	24.61	0.96
0:17:00	84.47	107.07	22.60	0.96	24.64	0.97
0:17:30	84.49	107.07	22.57	0.96	24.61	0.96
0:18:00	84.49	107.07	22.57	0.96	24.61	0.96
0:18:30	84.49	107.07	22.57	0.96	24.61	0.96
0:19:00	84.51	107.07	22.55	0.96	24.59	0.96
0:19:30	84.51	107.07	22.55	0.96	24.59	0.96
0:20:30	84.53	107.07	22.54	0.96	24.58	0.96
0:21:30	84.57	107.07	22.50	0.96	24.54	0.96
0:22:30	84.60	107.07	22.46	0.96	24.50	0.96
0:23:30	84.66	107.07	22.41	0.95	24.45	0.96
0:24:30	84.68	107.07	22.39	0.95	24.43	0.96
0:25:30	84.74	107.07	22.33	0.95	24.37	0.95
0:26:30	84.74	107.07	22.33	0.95	24.37	0.95
0:27:30	84.81	107.07	22.25	0.95	24.29	0.95
0:28:30	84.84	107.07	22.22	0.95	24.26	0.95
0:29:30	84.89	107.07	22.18	0.94	24.22	0.95

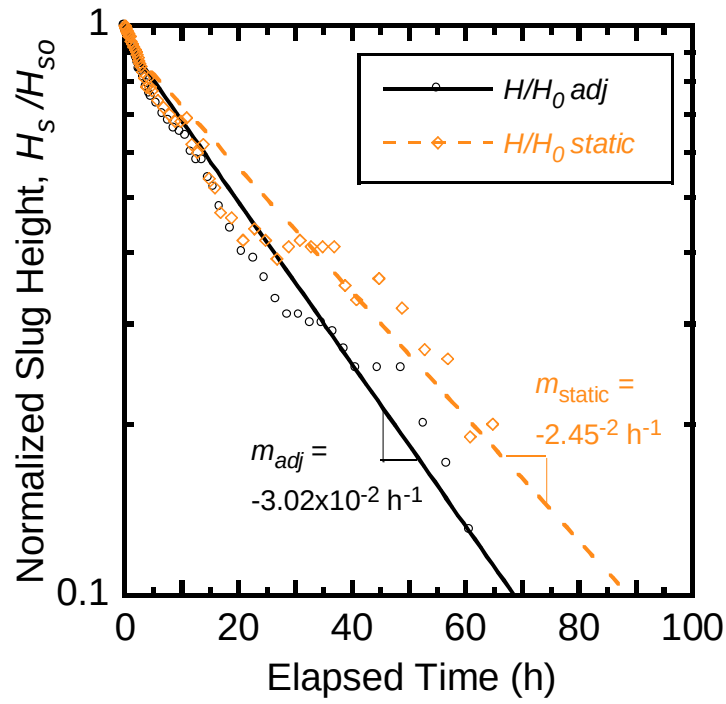
0+57.6	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:30:30	84.94	107.16	22.22	0.95	24.16	0.95
0:31:30	84.96	107.16	22.20	0.95	24.15	0.95
0:32:30	84.98	107.16	22.18	0.94	24.13	0.95
0:33:30	84.96	107.16	22.20	0.95	24.15	0.95
0:34:30	85.00	107.16	22.16	0.94	24.11	0.94
0:35:30	85.01	107.16	22.15	0.94	24.10	0.94
0:36:30	85.05	107.16	22.10	0.94	24.05	0.94
0:37:30	85.07	107.16	22.09	0.94	24.04	0.94
0:38:30	85.09	107.16	22.07	0.94	24.02	0.94
0:39:30	85.13	107.16	22.03	0.94	23.97	0.94
0:40:30	85.14	107.16	22.02	0.94	23.96	0.94
0:41:30	85.16	107.16	22.00	0.94	23.94	0.94
0:42:30	85.24	107.16	21.92	0.93	23.87	0.94
0:43:30	85.24	107.16	21.92	0.93	23.86	0.94
0:44:30	85.30	107.16	21.86	0.93	23.81	0.93
0:45:30	85.30	107.16	21.86	0.93	23.81	0.93
0:46:30	85.35	107.16	21.81	0.93	23.76	0.93
0:47:30	85.41	107.16	21.75	0.93	23.70	0.93
0:48:30	85.44	107.16	21.72	0.92	23.67	0.93
0:49:30	85.48	107.16	21.68	0.92	23.62	0.93
0:54:30	85.62	107.16	21.53	0.92	23.48	0.92
0:59:30	85.76	107.16	21.40	0.91	23.35	0.91
1:04:30	85.96	107.16	21.19	0.90	23.14	0.91
1:09:30	86.13	107.16	21.03	0.90	22.98	0.90
1:14:30	86.30	107.16	20.86	0.89	22.80	0.89
1:19:30	86.37	107.16	20.79	0.89	22.74	0.89
1:24:30	86.48	107.16	20.68	0.88	22.63	0.89
1:29:30	86.60	107.16	20.56	0.88	22.51	0.88
1:34:30	86.74	107.26	20.52	0.87	22.36	0.88
1:39:30	86.84	107.26	20.42	0.87	22.27	0.87
1:44:30	86.92	107.26	20.34	0.87	22.19	0.87
1:49:30	87.00	107.26	20.25	0.86	22.10	0.87
1:54:30	87.09	107.26	20.17	0.86	22.02	0.86
1:59:30	87.22	107.26	20.04	0.85	21.88	0.86
2:04:30	87.38	107.26	19.88	0.85	21.73	0.85
2:09:30	87.49	107.26	19.77	0.84	21.62	0.85
2:14:30	87.56	107.26	19.70	0.84	21.54	0.84
2:19:30	87.65	107.26	19.61	0.84	21.46	0.84
2:24:30	87.67	107.26	19.59	0.83	21.43	0.84
2:29:30	87.75	107.26	19.51	0.83	21.36	0.84
2:34:30	86.81	106.15	19.35	0.82	22.30	0.87
2:39:30	86.91	106.15	19.24	0.82	22.19	0.87
2:44:30	87.00	106.15	19.15	0.82	22.10	0.87
2:49:30	87.05	106.15	19.11	0.81	22.06	0.86
2:59:30	87.19	106.15	18.97	0.81	21.92	0.86
3:09:30	87.30	106.15	18.86	0.80	21.81	0.85
3:19:30	87.45	106.15	18.70	0.80	21.66	0.85
3:29:30	87.55	106.15	18.60	0.79	21.56	0.84
3:39:30	88.66	106.96	18.30	0.78	20.45	0.80
3:49:30	88.80	106.96	18.16	0.77	20.31	0.80

0+57.6	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:59:30	88.87	106.96	18.08	0.77	20.23	0.79
4:09:30	88.99	106.96	17.96	0.76	20.11	0.79
4:19:30	89.10	106.96	17.85	0.76	20.00	0.78
4:29:30	89.25	106.96	17.71	0.75	19.86	0.78
4:39:30	89.38	106.81	17.43	0.74	19.73	0.77
4:49:30	89.53	106.81	17.28	0.74	19.58	0.77
5:19:30	90.01	106.81	16.80	0.72	19.09	0.75
5:49:30	90.25	106.72	16.47	0.70	18.85	0.74
6:19:30	90.55	106.72	16.18	0.69	18.56	0.73
6:49:30	91.00	106.64	15.65	0.67	18.11	0.71
7:19:30	91.37	106.64	15.28	0.65	17.74	0.70
7:49:30	91.62	106.60	14.98	0.64	17.49	0.69
8:19:30	91.72	106.60	14.88	0.63	17.39	0.68
8:49:30	92.21	106.54	14.33	0.61	16.90	0.66
9:19:30	92.70	106.54	13.83	0.59	16.40	0.64
9:49:30	92.98	106.64	13.67	0.58	16.13	0.63
10:19:30	93.26	106.64	13.38	0.57	15.85	0.62
10:49:30	93.29	106.47	13.18	0.56	15.81	0.62
11:19:30	93.38	106.47	13.09	0.56	15.73	0.62
11:49:30	93.66	106.35	12.68	0.54	15.44	0.61
12:19:30	94.04	106.35	12.31	0.52	15.07	0.59
12:49:30	94.12	106.28	12.15	0.52	14.98	0.59
13:19:30	94.63	106.28	11.65	0.50	14.48	0.57
13:49:30	95.08	106.45	11.38	0.48	14.03	0.55
14:19:30	95.05	106.45	11.40	0.49	14.05	0.55
14:49:30	95.50	106.48	10.98	0.47	13.60	0.53
15:19:30	95.57	106.48	10.91	0.46	13.54	0.53
15:49:30	95.42	106.21	10.79	0.46	13.68	0.54
16:19:30	95.16	106.21	11.05	0.47	13.94	0.55
16:49:30	96.20	106.71	10.51	0.45	12.90	0.51
17:49:30	96.26	106.40	10.14	0.43	12.85	0.50
18:49:30	96.48	106.50	10.02	0.43	12.63	0.49
19:49:30	96.44	106.52	10.08	0.43	12.67	0.50
20:49:30	97.88	107.70	9.82	0.42	11.22	0.44
21:49:30	98.42	108.01	9.59	0.41	10.68	0.42
22:49:30	99.28	108.35	9.07	0.39	9.83	0.39
23:49:30	98.90	107.80	8.89	0.38	10.20	0.40
24:49:30	99.68	108.29	8.60	0.37	9.42	0.37
25:49:30	100.25	108.22	7.97	0.34	8.85	0.35
26:49:30	99.77	107.88	8.11	0.35	9.34	0.37
27:49:30	100.92	108.50	7.58	0.32	8.18	0.32
28:49:30	100.79	108.06	7.27	0.31	8.32	0.33
29:49:30	101.13	108.42	7.29	0.31	7.98	0.31
30:49:30	101.14	108.03	6.89	0.29	7.97	0.31
31:49:30	101.73	108.41	6.68	0.28	7.37	0.29
32:49:30	102.09	108.68	6.60	0.28	7.02	0.28
33:49:30	103.13	109.31	6.18	0.26	5.98	0.23
34:49:30	102.83	108.78	5.95	0.25	6.28	0.25
35:49:30	103.75	109.39	5.64	0.24	5.35	0.21
36:49:30	103.77	108.99	5.22	0.22	5.33	0.21

0+57.6	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
37:49:30	103.37	108.66	5.29	0.23	5.74	0.22
38:49:30	104.66	109.52	4.86	0.21	4.44	0.17
39:49:30	105.14	109.56	4.42	0.19	3.96	0.16
40:49:30	105.03	109.26	4.23	0.18	4.07	0.16
42:49:30	105.29	108.94	3.65	0.16	3.81	0.15
44:49:30	106.53	109.38	2.85	0.12	2.58	0.10
46:49:30	106.59	108.51	1.92	0.08	2.52	0.10
48:49:30	106.83	108.43	1.60	0.07	2.28	0.09
50:49:30	106.11	107.24	1.13	0.05	2.99	0.12
52:49:30	106.79	107.79	1.00	0.04	2.32	0.09
54:49:30	106.64	107.35	0.70	0.03	2.46	0.10
56:49:30	106.49	106.96	0.47	0.02	2.62	0.10
58:49:30	106.69	106.90	0.20	0.01	2.41	0.09
60:49:30	106.21	106.37	0.16	0.01	2.90	0.11
62:49:30	106.90	106.62	-0.28	-0.01	2.21	0.09
64:49:30	105.76	105.54	-0.22	-0.01	3.34	0.13
66:49:30	105.34	105.42	0.08	0.00	3.77	0.15
68:49:30	105.37	105.53	0.16	0.01	3.74	0.15
70:49:30	106.62	106.85	0.23	0.01	2.49	0.10
72:49:30	106.56	106.56	0.00	0.00	2.54	0.10
74:49:30	106.04	106.09	0.05	0.00	3.07	0.12
76:49:30	105.83	105.76	-0.07	0.00	3.28	0.13
78:49:30	105.78	105.80	0.02	0.00	3.33	0.13
80:49:30	106.11	106.49	0.38	0.02	3.00	0.12
82:49:30	107.17	107.43	0.26	0.01	1.93	0.08
84:49:30	106.54	106.83	0.29	0.01	2.57	0.10
86:49:30	107.80	107.87	0.07	0.00	1.31	0.05
88:49:30	107.36	107.52	0.16	0.01	1.74	0.07
90:49:30	107.96	107.98	0.02	0.00	1.15	0.04
92:49:30	108.06	108.55	0.49	0.02	1.04	0.04
94:49:30	108.92	109.23	0.31	0.01	0.19	0.01

Test Location (m)	**0+57.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	3
Well #	6	**Test Type**	Rate of Rise
Start Date of Test	11/21/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	99.4
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	22.2
k_{adj} (cm/s)	2.62E-07	**k_{static} (cm/s)**	2.01E-07





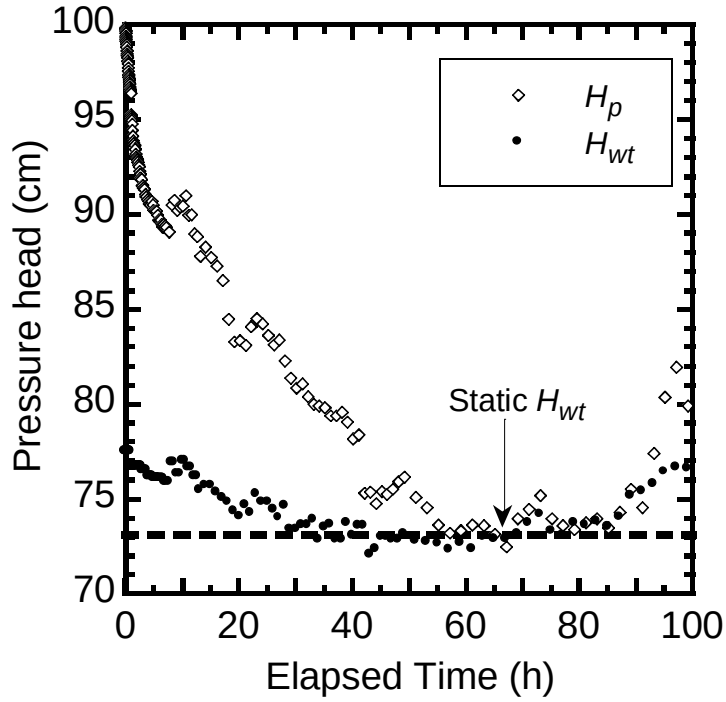
0+57.6	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	77.20	99.42	22.22	1.00	22.22	1.00
0:00:30	77.22	99.42	22.20	1.00	22.20	1.00
0:01:00	77.25	99.42	22.17	1.00	22.17	1.00
0:01:30	77.25	99.42	22.17	1.00	22.17	1.00
0:02:00	77.24	99.42	22.18	1.00	22.18	1.00
0:02:30	77.25	99.42	22.17	1.00	22.17	1.00
0:03:00	77.25	99.42	22.17	1.00	22.17	1.00
0:03:30	77.28	99.42	22.14	1.00	22.14	1.00
0:04:00	77.31	99.42	22.11	1.00	22.11	1.00
0:04:30	77.30	99.42	22.12	1.00	22.12	1.00
0:05:00	77.33	99.42	22.09	0.99	22.09	0.99
0:05:30	77.37	99.42	22.04	0.99	22.04	0.99
0:06:00	77.39	99.42	22.03	0.99	22.03	0.99
0:06:30	77.39	99.42	22.03	0.99	22.03	0.99
0:07:00	77.43	99.42	21.99	0.99	21.99	0.99
0:07:30	77.41	99.42	22.01	0.99	22.01	0.99
0:08:00	77.41	99.42	22.01	0.99	22.01	0.99
0:08:30	77.41	99.42	22.01	0.99	22.01	0.99
0:09:00	77.41	99.42	22.01	0.99	22.01	0.99
0:09:30	77.44	99.42	21.98	0.99	21.98	0.99
0:10:00	77.43	99.42	21.99	0.99	21.99	0.99
0:10:30	77.46	99.42	21.96	0.99	21.96	0.99
0:11:00	77.49	99.42	21.92	0.99	21.92	0.99
0:11:30	77.48	99.42	21.94	0.99	21.94	0.99
0:12:00	77.52	99.42	21.90	0.99	21.90	0.99
0:12:30	77.52	99.42	21.90	0.99	21.90	0.99
0:13:00	77.54	99.42	21.88	0.98	21.88	0.98
0:13:30	77.56	99.42	21.86	0.98	21.86	0.98
0:14:00	77.54	99.42	21.88	0.98	21.88	0.98
0:14:30	77.54	99.42	21.88	0.98	21.88	0.98
0:15:00	77.57	99.42	21.85	0.98	21.85	0.98
0:15:30	77.54	99.42	21.88	0.98	21.88	0.98
0:16:00	77.57	99.42	21.85	0.98	21.85	0.98
0:16:30	77.56	99.42	21.86	0.98	21.86	0.98
0:17:00	77.59	99.42	21.82	0.98	21.82	0.98
0:17:30	77.59	99.42	21.82	0.98	21.82	0.98
0:18:30	77.59	99.42	21.83	0.98	21.83	0.98
0:19:30	77.62	99.42	21.80	0.98	21.80	0.98
0:20:30	77.59	99.42	21.82	0.98	21.82	0.98
0:21:30	77.68	99.42	21.74	0.98	21.74	0.98
0:22:30	77.65	99.42	21.77	0.98	21.77	0.98
0:23:30	77.70	99.42	21.72	0.98	21.72	0.98
0:24:30	77.70	99.42	21.72	0.98	21.72	0.98
0:25:30	77.70	99.42	21.72	0.98	21.72	0.98
0:26:30	77.74	99.42	21.68	0.98	21.68	0.98
0:27:30	77.78	99.42	21.64	0.97	21.64	0.97
0:28:30	77.81	99.42	21.61	0.97	21.61	0.97
0:29:30	77.83	99.42	21.58	0.97	21.58	0.97
0:30:30	77.86	99.42	21.56	0.97	21.56	0.97
0:31:30	77.86	99.42	21.56	0.97	21.56	0.97

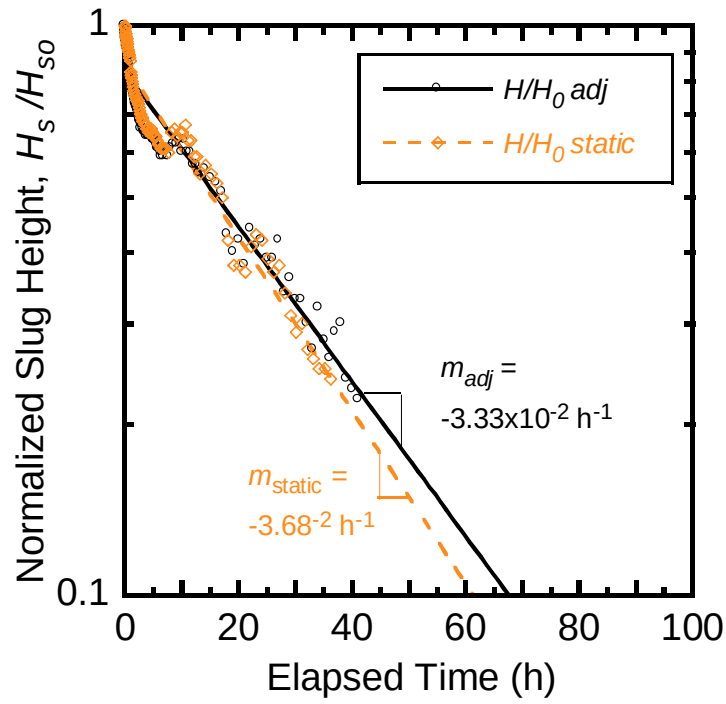
0+57.6	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:32:30	77.86	99.42	21.56	0.97	21.56	0.97
0:33:30	77.87	99.42	21.55	0.97	21.55	0.97
0:34:30	77.87	99.42	21.55	0.97	21.55	0.97
0:35:30	77.91	99.42	21.51	0.97	21.51	0.97
0:36:30	77.94	99.42	21.48	0.97	21.48	0.97
0:37:30	77.94	99.42	21.48	0.97	21.48	0.97
0:38:30	77.91	99.42	21.51	0.97	21.51	0.97
0:39:30	77.94	99.42	21.48	0.97	21.48	0.97
0:40:30	77.94	99.42	21.48	0.97	21.48	0.97
0:41:30	77.92	99.42	21.50	0.97	21.50	0.97
0:42:30	78.00	99.42	21.42	0.96	21.42	0.96
0:43:30	78.02	99.42	21.40	0.96	21.40	0.96
0:44:30	78.05	99.42	21.37	0.96	21.37	0.96
0:45:30	78.05	99.42	21.37	0.96	21.37	0.96
0:46:30	78.13	99.42	21.29	0.96	21.29	0.96
0:47:30	78.17	99.42	21.25	0.96	21.25	0.96
0:52:30	78.13	99.42	21.29	0.96	21.29	0.96
0:57:30	78.18	99.42	21.23	0.96	21.23	0.96
1:02:30	78.37	99.17	20.80	0.94	21.05	0.95
1:07:30	78.56	99.17	20.61	0.93	20.86	0.94
1:12:30	78.63	99.17	20.54	0.92	20.79	0.94
1:17:30	78.84	99.17	20.33	0.91	20.58	0.93
1:22:30	78.91	99.17	20.26	0.91	20.51	0.92
1:27:30	78.95	99.17	20.22	0.91	20.47	0.92
1:32:30	79.06	99.17	20.11	0.91	20.36	0.92
1:37:30	79.08	99.17	20.09	0.90	20.34	0.92
1:42:30	79.17	99.17	20.00	0.90	20.25	0.91
1:47:30	79.19	99.17	19.98	0.90	20.23	0.91
1:52:30	79.29	99.17	19.88	0.89	20.13	0.91
1:57:30	79.38	99.17	19.79	0.89	20.04	0.90
2:02:30	79.34	99.16	19.81	0.89	20.08	0.90
2:07:30	79.58	99.16	19.57	0.88	19.83	0.89
2:12:30	79.78	99.16	19.37	0.87	19.64	0.88
2:17:30	79.91	99.16	19.24	0.87	19.51	0.88
2:22:30	79.96	99.16	19.20	0.86	19.46	0.88
2:27:30	80.12	99.16	19.03	0.86	19.30	0.87
2:32:30	80.21	99.16	18.95	0.85	19.21	0.86
2:37:30	80.38	99.16	18.77	0.84	19.04	0.86
2:42:30	80.44	99.16	18.72	0.84	18.98	0.85
2:47:30	80.58	99.16	18.58	0.84	18.84	0.85
2:57:30	80.73	99.16	18.42	0.83	18.69	0.84
3:07:30	80.97	99.47	18.49	0.83	18.45	0.83
3:17:30	81.24	99.47	18.23	0.82	18.18	0.82
3:27:30	81.48	99.47	17.99	0.81	17.94	0.81
3:37:30	81.90	99.47	17.56	0.79	17.52	0.79
3:47:30	82.11	99.47	17.36	0.78	17.31	0.78
3:57:30	82.43	99.47	17.04	0.77	16.99	0.76
4:07:30	81.46	98.91	17.45	0.79	17.96	0.81
4:17:30	81.77	98.91	17.14	0.77	17.65	0.79
4:27:30	81.98	98.91	16.93	0.76	17.44	0.78

0+57.6	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:37:30	82.08	98.91	16.83	0.76	17.34	0.78
4:47:30	82.26	98.91	16.65	0.75	17.16	0.77
5:17:30	82.50	99.04	16.54	0.74	16.92	0.76
5:47:30	82.91	99.04	16.14	0.73	16.51	0.74
6:17:30	83.31	99.12	15.81	0.71	16.11	0.72
6:47:30	83.46	99.12	15.65	0.70	15.95	0.72
7:17:30	83.78	99.07	15.29	0.69	15.64	0.70
7:47:30	83.97	99.07	15.11	0.68	15.45	0.70
8:17:30	84.28	98.99	14.71	0.66	15.13	0.68
8:47:30	84.37	98.99	14.62	0.66	15.05	0.68
9:17:30	84.32	98.65	14.34	0.65	15.10	0.68
9:47:30	84.28	98.65	14.37	0.65	15.14	0.68
10:17:30	84.26	98.29	14.03	0.63	15.16	0.68
10:47:30	84.15	98.29	14.14	0.64	15.27	0.69
11:17:30	85.41	98.96	13.55	0.61	14.01	0.63
11:47:30	85.73	98.96	13.23	0.60	13.69	0.62
12:17:30	85.98	98.96	12.98	0.58	13.44	0.60
12:47:30	86.03	98.96	12.92	0.58	13.38	0.60
13:17:30	85.87	98.60	12.73	0.57	13.55	0.61
13:47:30	85.62	98.60	12.98	0.58	13.80	0.62
14:17:30	87.05	99.42	12.36	0.56	12.36	0.56
14:47:30	87.50	99.42	11.92	0.54	11.92	0.54
15:17:30	87.80	99.49	11.69	0.53	11.62	0.52
15:47:30	87.90	99.49	11.59	0.52	11.52	0.52
16:17:30	88.29	99.66	11.37	0.51	11.13	0.50
16:47:30	89.04	99.66	10.62	0.48	10.37	0.47
17:47:30	89.25	99.31	10.06	0.45	10.17	0.46
18:47:30	89.17	98.98	9.81	0.44	10.25	0.46
19:47:30	89.12	98.44	9.32	0.42	10.30	0.46
20:47:30	90.20	99.06	8.87	0.40	9.22	0.42
21:47:30	89.47	98.37	8.90	0.40	9.95	0.45
22:47:30	89.62	98.39	8.76	0.39	9.79	0.44
23:47:30	90.54	98.71	8.16	0.37	8.88	0.40
24:47:30	90.10	98.12	8.01	0.36	9.32	0.42
25:47:30	90.82	98.45	7.63	0.34	8.59	0.39
26:47:30	90.81	98.04	7.23	0.33	8.61	0.39
27:47:30	90.92	97.80	6.89	0.31	8.50	0.38
28:47:30	90.30	97.27	6.97	0.31	9.12	0.41
29:47:30	90.94	97.75	6.82	0.31	8.48	0.38
30:47:30	90.08	96.94	6.85	0.31	9.34	0.42
31:47:30	90.03	96.93	6.91	0.31	9.39	0.42
32:47:30	90.32	96.89	6.57	0.30	9.10	0.41
33:47:30	90.67	97.03	6.36	0.29	8.75	0.39
34:47:30	90.37	97.03	6.66	0.30	9.05	0.41
35:47:30	90.40	96.78	6.38	0.29	9.02	0.41
36:47:30	90.35	96.80	6.45	0.29	9.07	0.41
37:47:30	90.23	96.55	6.32	0.28	9.19	0.41
38:47:30	91.56	97.51	5.95	0.27	7.86	0.35
39:47:30	90.50	96.45	5.94	0.27	8.92	0.40
40:47:30	92.03	97.54	5.51	0.25	7.39	0.33

0+57.6	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
42:47:30	91.46	96.88	5.42	0.24	7.95	0.36
44:47:30	91.31	96.77	5.46	0.25	8.11	0.36
46:47:30	91.39	97.43	6.04	0.27	8.03	0.36
48:47:30	92.37	97.90	5.54	0.25	7.05	0.32
50:47:30	93.32	98.46	5.14	0.23	6.10	0.27
52:47:30	93.48	98.03	4.54	0.20	5.93	0.27
54:47:30	94.37	98.23	3.86	0.17	5.05	0.23
56:47:30	93.63	97.32	3.68	0.17	5.79	0.26
58:47:30	93.45	97.09	3.64	0.16	5.97	0.27
60:47:30	95.09	98.03	2.94	0.13	4.33	0.19
62:47:30	94.24	96.97	2.73	0.12	5.18	0.23
64:47:30	94.97	97.26	2.29	0.10	4.45	0.20
66:47:30	95.27	97.55	2.28	0.10	4.15	0.19
68:47:30	94.51	97.01	2.50	0.11	4.90	0.22
70:47:30	94.90	97.72	2.81	0.13	4.52	0.20
72:47:30	95.44	98.15	2.71	0.12	3.98	0.18
74:47:30	96.35	98.41	2.06	0.09	3.07	0.14
76:47:30	96.83	98.35	1.52	0.07	2.59	0.12
78:47:30	97.12	98.12	1.00	0.04	2.29	0.10
80:47:30	96.53	97.83	1.30	0.06	2.89	0.13
82:47:30	96.49	97.78	1.29	0.06	2.93	0.13
84:47:30	97.27	98.17	0.90	0.04	2.15	0.10
86:47:30	97.43	98.24	0.81	0.04	1.99	0.09
88:47:30	97.86	98.59	0.73	0.03	1.56	0.07
90:47:30	98.85	99.02	0.17	0.01	0.57	0.03
92:47:30	99.18	99.36	0.18	0.01	0.24	0.01
94:47:30	99.34	99.30	-0.05	0.00	0.08	0.00
96:47:30	99.59	98.94	-0.65	-0.03	-0.17	-0.01
98:47:30	100.38	99.22	-1.15	-0.05	-0.96	-0.04

Test Location (m)	**0+57.6**	**Effective Stress on date of test (kPa)**	**11.5**
Depth (m)	3.0	**Test # in well**	4
Well #	6	**Test Type**	Rate of Fall
Start Date of Test	12/19/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	73.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	22.3/26.7
k_{adj} (cm/s)	2.74E-07	**k_{static} (cm/s)**	3.02E-07





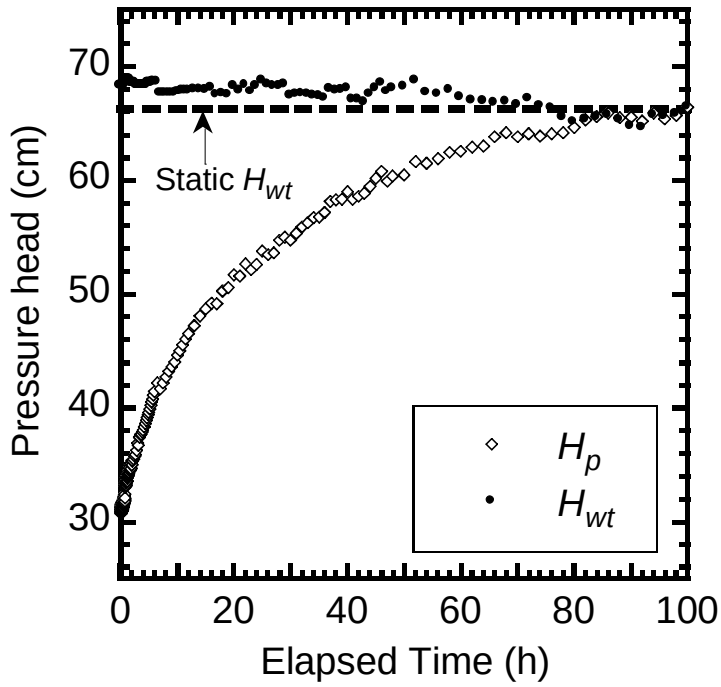
0+57.6	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	99.83	77.50	22.33	1.00	26.72	1.00
0:01:00	99.79	77.50	22.29	1.00	26.68	1.00
0:02:00	99.70	77.50	22.20	0.99	26.59	1.00
0:03:00	99.63	77.50	22.14	0.99	26.52	0.99
0:04:00	99.54	77.50	22.04	0.99	26.43	0.99
0:05:00	99.41	77.50	21.91	0.98	26.30	0.98
0:06:00	99.31	77.50	21.82	0.98	26.20	0.98
0:07:00	99.21	77.50	21.71	0.97	26.10	0.98
0:08:00	99.13	77.50	21.63	0.97	26.02	0.97
0:09:00	99.05	77.50	21.55	0.97	25.94	0.97
0:10:00	98.96	77.50	21.46	0.96	25.85	0.97
0:12:00	98.80	77.50	21.30	0.95	25.69	0.96
0:14:00	98.64	77.50	21.14	0.95	25.53	0.96
0:16:00	98.60	77.50	21.10	0.94	25.49	0.95
0:18:00	98.45	77.50	20.96	0.94	25.34	0.95
0:20:00	98.37	77.50	20.88	0.93	25.26	0.95
0:22:00	98.26	77.50	20.76	0.93	25.15	0.94
0:24:00	98.08	77.50	20.59	0.92	24.97	0.93
0:26:00	97.99	77.50	20.50	0.92	24.88	0.93
0:28:00	97.93	77.50	20.43	0.91	24.81	0.93
0:30:00	97.71	77.50	20.22	0.91	24.60	0.92
0:32:00	97.55	77.50	20.06	0.90	24.44	0.91
0:34:00	97.38	77.50	19.89	0.89	24.27	0.91
0:36:00	97.32	77.50	19.82	0.89	24.21	0.91
0:38:00	97.22	77.50	19.73	0.88	24.11	0.90
0:40:00	97.13	77.50	19.64	0.88	24.02	0.90
0:42:00	97.07	77.50	19.57	0.88	23.95	0.90
0:44:00	96.95	77.50	19.45	0.87	23.84	0.89
0:46:00	96.88	77.50	19.39	0.87	23.77	0.89
0:48:00	96.72	77.50	19.23	0.86	23.61	0.88
0:50:00	96.62	77.50	19.12	0.86	23.50	0.88
0:52:00	96.59	77.50	19.09	0.85	23.48	0.88
0:54:00	96.56	77.50	19.07	0.85	23.45	0.88
0:56:00	96.47	77.50	18.97	0.85	23.36	0.87
0:58:00	96.39	77.50	18.90	0.85	23.28	0.87
1:00:00	95.25	76.66	18.60	0.83	22.14	0.83
1:02:00	95.23	76.66	18.57	0.83	22.11	0.83
1:04:00	95.16	76.66	18.50	0.83	22.05	0.83
1:06:00	95.08	76.66	18.42	0.82	21.97	0.82
1:08:00	94.96	76.66	18.31	0.82	21.85	0.82
1:10:00	94.78	76.66	18.12	0.81	21.67	0.81
1:15:00	94.42	76.66	17.76	0.80	21.31	0.80
1:20:00	94.13	76.66	17.47	0.78	21.02	0.79
1:25:00	93.88	76.66	17.22	0.77	20.77	0.78
1:30:00	93.77	76.66	17.12	0.77	20.66	0.77
1:35:00	93.63	76.66	16.97	0.76	20.51	0.77
1:40:00	93.45	76.66	16.80	0.75	20.34	0.76
1:45:00	93.43	76.66	16.77	0.75	20.32	0.76
1:50:00	93.20	76.66	16.55	0.74	20.09	0.75
1:55:00	93.04	76.66	16.39	0.73	19.93	0.75

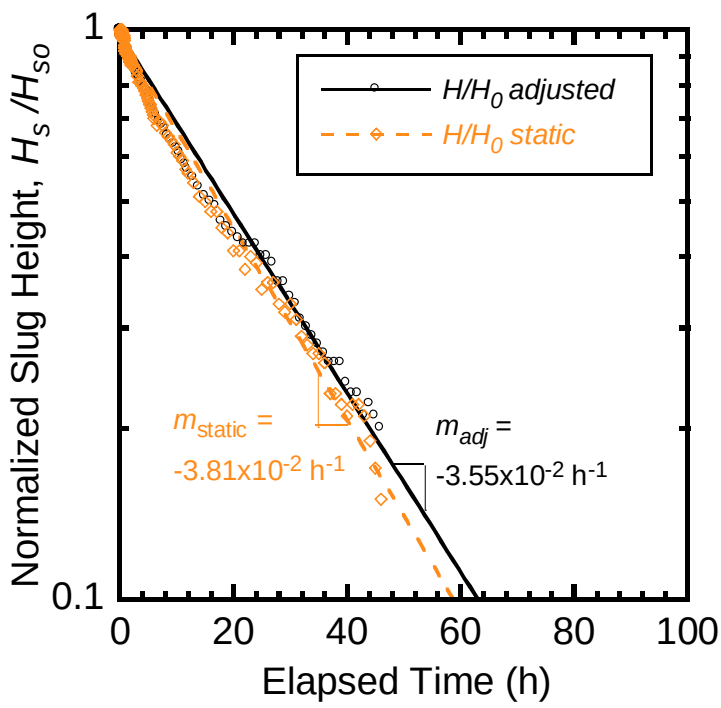
0+57.6	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:00:00	92.95	76.69	16.26	0.73	19.84	0.74
2:05:00	92.86	76.69	16.17	0.72	19.75	0.74
2:10:00	92.77	76.69	16.07	0.72	19.66	0.74
2:15:00	92.75	76.69	16.06	0.72	19.64	0.74
2:20:00	92.59	76.69	15.90	0.71	19.48	0.73
2:25:00	92.50	76.69	15.81	0.71	19.39	0.73
2:30:00	92.28	76.69	15.58	0.70	19.17	0.72
2:35:00	92.12	76.69	15.43	0.69	19.01	0.71
2:40:00	91.92	76.69	15.23	0.68	18.81	0.70
2:45:00	91.85	76.69	15.16	0.68	18.74	0.70
2:50:00	91.85	76.69	15.16	0.68	18.74	0.70
2:55:00	91.51	76.69	14.82	0.66	18.40	0.69
3:00:00	91.55	76.49	15.06	0.67	18.44	0.69
3:05:00	91.51	76.49	15.02	0.67	18.40	0.69
3:10:00	91.38	76.49	14.89	0.67	18.27	0.68
3:20:00	91.31	76.49	14.83	0.66	18.20	0.68
3:30:00	91.06	76.49	14.58	0.65	17.95	0.67
3:40:00	90.93	76.49	14.44	0.65	17.82	0.67
3:50:00	90.78	76.49	14.30	0.64	17.67	0.66
4:00:00	90.68	76.20	14.48	0.65	17.57	0.66
4:10:00	90.56	76.20	14.36	0.64	17.45	0.65
4:20:00	90.52	76.20	14.32	0.64	17.41	0.65
4:30:00	90.62	76.20	14.43	0.65	17.51	0.66
4:40:00	90.68	76.20	14.48	0.65	17.57	0.66
4:50:00	90.52	76.20	14.32	0.64	17.41	0.65
5:00:00	90.24	76.11	14.13	0.63	17.13	0.64
5:10:00	90.17	76.11	14.07	0.63	17.06	0.64
5:20:00	90.20	76.11	14.09	0.63	17.09	0.64
5:30:00	90.17	76.11	14.07	0.63	17.06	0.64
5:40:00	89.94	76.11	13.83	0.62	16.82	0.63
5:50:00	89.71	76.11	13.60	0.61	16.60	0.62
6:00:00	89.66	76.06	13.60	0.61	16.55	0.62
6:10:00	89.71	76.06	13.65	0.61	16.60	0.62
6:20:00	89.47	76.06	13.42	0.60	16.36	0.61
6:30:00	89.34	76.06	13.28	0.59	16.23	0.61
6:40:00	89.46	76.06	13.40	0.60	16.35	0.61
6:50:00	89.30	76.06	13.24	0.59	16.19	0.61
7:00:00	89.41	75.88	13.53	0.61	16.30	0.61
7:10:00	89.30	75.88	13.42	0.60	16.19	0.61
7:40:00	89.08	75.88	13.20	0.59	15.97	0.60
8:10:00	90.52	76.91	13.61	0.61	17.41	0.65
8:40:00	90.75	76.91	13.84	0.62	17.63	0.66
9:10:00	90.20	76.31	13.89	0.62	17.09	0.64
9:40:00	90.39	76.31	14.08	0.63	17.28	0.65
10:10:00	90.43	77.02	13.40	0.60	17.31	0.65
10:40:00	90.99	77.02	13.97	0.63	17.88	0.67
11:10:00	89.94	76.64	13.30	0.60	16.82	0.63
11:40:00	89.99	76.64	13.35	0.60	16.88	0.63
12:10:00	88.99	76.18	12.82	0.57	15.88	0.59
12:40:00	88.82	76.18	12.65	0.57	15.71	0.59

0+57.6	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
13:10:00	87.80	75.46	12.35	0.55	14.69	0.55
14:10:00	88.28	75.68	12.59	0.56	15.17	0.57
15:10:00	87.72	75.68	12.04	0.54	14.61	0.55
16:10:00	87.27	75.33	11.94	0.53	14.16	0.53
17:10:00	86.50	75.04	11.47	0.51	13.39	0.50
18:10:00	84.47	74.83	9.63	0.43	11.35	0.42
19:10:00	83.29	74.34	8.94	0.40	10.18	0.38
20:10:00	83.34	74.06	9.29	0.42	10.23	0.38
21:10:00	83.09	74.66	8.43	0.38	9.98	0.37
22:10:00	84.08	74.25	9.83	0.44	10.97	0.41
23:10:00	84.49	75.23	9.26	0.41	11.38	0.43
24:10:00	84.24	74.80	9.44	0.42	11.13	0.42
25:10:00	83.61	74.80	8.81	0.39	10.49	0.39
26:10:00	83.13	74.43	8.70	0.39	10.02	0.37
27:10:00	83.38	74.00	9.38	0.42	10.27	0.38
28:10:00	82.27	74.62	7.65	0.34	9.16	0.34
29:10:00	81.35	73.36	8.00	0.36	8.24	0.31
30:10:00	80.84	73.36	7.48	0.33	7.73	0.29
31:10:00	81.05	73.59	7.46	0.33	7.94	0.30
32:10:00	80.39	73.59	6.80	0.30	7.28	0.27
33:10:00	80.00	73.91	6.10	0.27	6.89	0.26
34:10:00	79.91	72.83	7.08	0.32	6.80	0.25
35:10:00	79.82	73.48	6.34	0.28	6.71	0.25
36:10:00	79.39	73.63	5.76	0.26	6.28	0.24
37:10:00	79.39	72.84	6.55	0.29	6.28	0.24
38:10:00	79.56	72.84	6.72	0.30	6.45	0.24
39:10:00	79.05	73.72	5.33	0.24	5.94	0.22
40:10:00	78.16	73.06	5.10	0.23	5.05	0.19
41:10:00	78.39	73.57	4.82	0.22	5.27	0.20
42:10:00	75.31	73.57	1.74	0.08	2.20	0.08
43:10:00	75.35	72.03	3.32	0.15	2.24	0.08
44:10:00	74.75	72.34	2.41	0.11	1.64	0.06
45:10:00	75.41	72.97	2.44	0.11	2.30	0.09
46:10:00	75.25	72.97	2.28	0.10	2.14	0.08
47:10:00	75.50	72.84	2.66	0.12	2.39	0.09
48:10:00	75.90	72.84	3.06	0.14	2.79	0.10
49:10:00	76.15	73.13	3.02	0.14	3.04	0.11
51:10:00	75.10	72.79	2.32	0.10	1.99	0.07
53:10:00	74.55	72.72	1.83	0.08	1.44	0.05
55:10:00	73.62	72.60	1.03	0.05	0.51	0.02
57:10:00	73.19	72.31	0.88	0.04	0.08	0.00
59:10:00	73.33	72.66	0.67	0.03	0.22	0.01
61:10:00	73.63	72.35	1.27	0.06	0.51	0.02
63:10:00	73.60	72.96	0.64	0.03	0.49	0.02
65:10:00	73.15	72.86	0.29	0.01	0.04	0.00
67:10:00	72.48	72.86	-0.38	-0.02	-0.63	-0.02
69:10:00	73.96	73.15	0.81	0.04	0.85	0.03
71:10:00	74.44	73.72	0.72	0.03	1.33	0.05
73:10:00	75.18	74.14	1.03	0.05	2.07	0.08
75:10:00	73.97	73.29	0.68	0.03	0.86	0.03

0+57.6	**3.0 m**					**Test #4**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
77:10:00	73.59	73.06	0.53	0.02	0.48	0.02
79:10:00	73.39	73.73	-0.34	-0.02	0.28	0.01
81:10:00	73.75	73.61	0.14	0.01	0.64	0.02
83:10:00	73.96	73.80	0.17	0.01	0.85	0.03
85:10:00	73.49	73.50	-0.01	0.00	0.38	0.01
87:10:00	74.29	74.03	0.26	0.01	1.17	0.04
89:10:00	75.52	75.15	0.37	0.02	2.41	0.09
91:10:00	74.53	75.41	-0.88	-0.04	1.42	0.05
93:10:00	77.41	75.75	1.65	0.07	4.29	0.16
95:10:00	80.37	76.40	3.97	0.18	7.26	0.27
97:10:00	81.96	76.63	5.33	0.24	8.85	0.33
99:10:00	79.92	76.57	3.36	0.15	6.81	0.25
101:10:00	78.78	74.93	3.85	0.17	5.67	0.21

Test Location (m)	**0+78.9**	**Effective Stress on date of test (kPa)**	**11.2**
Depth (m)	3.0	**Test # in well**	1
Well #	7	**Test Type**	Rate of Rise
Start Date of Test	9/25/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	66.3
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	37.5/35.4
k_{adj} (cm/s)	2.92E-07	**k_{static} (cm/s)**	3.13E-07





0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	30.87	68.32	37.45	1.00	35.41	1.00
0:00:06	30.88	68.32	37.44	1.00	35.40	1.00
0:00:14	30.91	68.32	37.41	1.00	35.37	1.00
0:00:24	30.91	68.32	37.41	1.00	35.37	1.00
0:00:34	30.93	68.32	37.38	1.00	35.34	1.00
0:00:44	30.91	68.32	37.41	1.00	35.37	1.00
0:00:54	30.96	68.32	37.36	1.00	35.32	1.00
0:01:04	30.96	68.32	37.36	1.00	35.32	1.00
0:01:14	30.91	68.32	37.41	1.00	35.37	1.00
0:01:24	30.96	68.32	37.36	1.00	35.32	1.00
0:01:34	30.97	68.32	37.34	1.00	35.30	1.00
0:01:44	31.00	68.32	37.32	1.00	35.28	1.00
0:01:54	31.03	68.32	37.29	1.00	35.25	1.00
0:02:04	31.03	68.32	37.29	1.00	35.25	1.00
0:02:14	31.05	68.32	37.27	1.00	35.23	0.99
0:02:24	31.03	68.32	37.29	1.00	35.25	1.00
0:02:34	31.03	68.32	37.29	1.00	35.25	1.00
0:02:44	31.05	68.32	37.27	1.00	35.23	0.99
0:02:54	31.05	68.32	37.27	1.00	35.23	0.99
0:03:04	31.07	68.32	37.25	0.99	35.21	0.99
0:03:14	31.09	68.32	37.23	0.99	35.19	0.99
0:03:24	31.09	68.32	37.23	0.99	35.19	0.99
0:03:34	31.07	68.32	37.25	0.99	35.21	0.99
0:03:44	31.09	68.32	37.23	0.99	35.19	0.99
0:03:54	31.05	68.32	37.27	1.00	35.23	0.99
0:04:04	30.88	68.32	37.44	1.00	35.40	1.00
0:04:14	30.88	68.32	37.44	1.00	35.40	1.00
0:04:24	31.09	68.32	37.23	0.99	35.19	0.99
0:04:34	31.05	68.32	37.27	1.00	35.23	0.99
0:04:44	30.75	68.32	37.57	1.00	35.53	1.00
0:04:54	31.54	68.32	36.78	0.98	34.74	0.98
0:05:04	31.25	68.32	37.07	0.99	35.03	0.99
0:05:14	31.16	68.32	37.16	0.99	35.12	0.99
0:05:24	30.96	68.32	37.36	1.00	35.32	1.00
0:05:34	31.34	68.32	36.97	0.99	34.94	0.99
0:05:44	30.93	68.32	37.38	1.00	35.34	1.00
0:05:54	31.41	68.32	36.91	0.99	34.87	0.98
0:06:04	31.00	68.32	37.32	1.00	35.28	1.00
0:06:14	31.34	68.32	36.97	0.99	34.94	0.99
0:06:24	30.78	68.32	37.54	1.00	35.50	1.00
0:06:34	31.03	68.32	37.29	1.00	35.25	1.00
0:06:44	31.25	68.32	37.07	0.99	35.03	0.99
0:06:54	30.91	68.32	37.41	1.00	35.37	1.00
0:07:04	31.12	68.32	37.20	0.99	35.16	0.99
0:07:14	31.29	68.32	37.03	0.99	34.99	0.99
0:07:24	31.16	68.32	37.16	0.99	35.12	0.99
0:07:34	30.97	68.32	37.34	1.00	35.30	1.00
0:07:44	30.93	68.32	37.38	1.00	35.34	1.00
0:07:54	31.09	68.32	37.23	0.99	35.19	0.99
0:08:04	31.03	68.32	37.29	1.00	35.25	1.00

0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:14	31.57	68.32	36.75	0.98	34.71	0.98
0:08:24	31.25	68.32	37.07	0.99	35.03	0.99
0:08:34	31.44	68.32	36.88	0.98	34.84	0.98
0:08:44	31.13	68.32	37.19	0.99	35.15	0.99
0:08:54	31.38	68.32	36.93	0.99	34.90	0.99
0:09:04	31.28	68.32	37.04	0.99	35.00	0.99
0:09:14	31.28	68.32	37.04	0.99	35.00	0.99
0:09:24	31.23	68.32	37.09	0.99	35.05	0.99
0:09:34	31.38	68.32	36.93	0.99	34.90	0.99
0:09:44	31.38	68.32	36.93	0.99	34.90	0.99
0:09:54	31.60	68.32	36.72	0.98	34.68	0.98
0:10:04	31.05	68.32	37.27	1.00	35.23	0.99
0:10:14	31.25	68.32	37.07	0.99	35.03	0.99
0:10:24	31.61	68.32	36.71	0.98	34.67	0.98
0:10:34	31.09	68.32	37.23	0.99	35.19	0.99
0:10:44	30.87	68.32	37.45	1.00	35.41	1.00
0:10:54	30.93	68.32	37.38	1.00	35.34	1.00
0:11:04	31.20	68.32	37.12	0.99	35.08	0.99
0:11:14	31.16	68.32	37.16	0.99	35.12	0.99
0:11:24	31.16	68.32	37.16	0.99	35.12	0.99
0:11:34	31.28	68.32	37.04	0.99	35.00	0.99
0:11:44	31.53	68.32	36.79	0.98	34.75	0.98
0:11:54	31.29	68.32	37.03	0.99	34.99	0.99
0:12:04	31.41	68.32	36.91	0.99	34.87	0.98
0:12:14	31.25	68.32	37.07	0.99	35.03	0.99
0:12:24	31.44	68.32	36.88	0.98	34.84	0.98
0:12:34	31.28	68.32	37.04	0.99	35.00	0.99
0:12:44	31.29	68.32	37.03	0.99	34.99	0.99
0:12:54	31.29	68.32	37.03	0.99	34.99	0.99
0:13:04	30.93	68.32	37.38	1.00	35.34	1.00
0:13:14	31.32	68.32	37.00	0.99	34.96	0.99
0:13:24	31.00	68.32	37.32	1.00	35.28	1.00
0:13:34	31.70	68.32	36.62	0.98	34.58	0.98
0:13:44	30.93	68.32	37.38	1.00	35.34	1.00
0:13:54	31.41	68.32	36.91	0.99	34.87	0.98
0:14:04	31.69	68.32	36.63	0.98	34.59	0.98
0:14:14	31.13	68.32	37.19	0.99	35.15	0.99
0:14:24	31.45	68.32	36.87	0.98	34.83	0.98
0:14:34	31.16	68.32	37.16	0.99	35.12	0.99
0:14:44	31.16	68.32	37.16	0.99	35.12	0.99
0:14:54	31.38	68.32	36.93	0.99	34.90	0.99
0:15:04	31.23	68.32	37.09	0.99	35.05	0.99
0:15:14	31.34	68.32	36.97	0.99	34.94	0.99
0:15:24	31.16	68.32	37.16	0.99	35.12	0.99
0:15:34	31.29	68.32	37.03	0.99	34.99	0.99
0:15:44	31.25	68.32	37.07	0.99	35.03	0.99
0:15:54	31.00	68.32	37.32	1.00	35.28	1.00
0:16:04	31.07	68.32	37.25	0.99	35.21	0.99
0:16:14	31.66	68.32	36.66	0.98	34.62	0.98
0:16:24	31.37	68.32	36.95	0.99	34.91	0.99

0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:34	31.23	68.32	37.09	0.99	35.05	0.99
0:16:44	31.19	68.32	37.13	0.99	35.09	0.99
0:16:54	31.09	68.32	37.23	0.99	35.19	0.99
0:17:04	31.37	68.32	36.95	0.99	34.91	0.99
0:17:14	31.44	68.32	36.88	0.98	34.84	0.98
0:17:24	31.37	68.32	36.95	0.99	34.91	0.99
0:17:34	31.20	68.32	37.12	0.99	35.08	0.99
0:17:44	31.20	68.32	37.12	0.99	35.08	0.99
0:17:54	31.57	68.32	36.75	0.98	34.71	0.98
0:18:04	31.41	68.32	36.91	0.99	34.87	0.98
0:18:14	31.37	68.32	36.95	0.99	34.91	0.99
0:18:24	31.37	68.32	36.95	0.99	34.91	0.99
0:18:34	31.32	68.32	37.00	0.99	34.96	0.99
0:18:44	31.69	68.32	36.63	0.98	34.59	0.98
0:18:54	31.37	68.32	36.95	0.99	34.91	0.99
0:19:04	31.29	68.32	37.03	0.99	34.99	0.99
0:19:14	31.54	68.32	36.78	0.98	34.74	0.98
0:19:24	31.25	68.32	37.07	0.99	35.03	0.99
0:19:34	31.23	68.32	37.09	0.99	35.05	0.99
0:19:44	31.75	68.32	36.56	0.98	34.52	0.97
0:19:54	31.37	68.32	36.95	0.99	34.91	0.99
0:20:04	31.03	68.32	37.29	1.00	35.25	1.00
0:20:14	31.61	68.32	36.71	0.98	34.67	0.98
0:20:24	31.29	68.32	37.03	0.99	34.99	0.99
0:20:34	31.19	68.32	37.13	0.99	35.09	0.99
0:20:44	31.78	68.32	36.54	0.98	34.50	0.97
0:20:54	31.12	68.32	37.20	0.99	35.16	0.99
0:21:04	31.13	68.32	37.19	0.99	35.15	0.99
0:21:14	31.09	68.32	37.23	0.99	35.19	0.99
0:21:24	31.66	68.32	36.66	0.98	34.62	0.98
0:21:34	31.41	68.32	36.91	0.99	34.87	0.98
0:21:44	31.54	68.32	36.78	0.98	34.74	0.98
0:21:54	31.25	68.32	37.07	0.99	35.03	0.99
0:22:04	31.37	68.32	36.95	0.99	34.91	0.99
0:22:14	31.29	68.32	37.03	0.99	34.99	0.99
0:22:24	31.73	68.32	36.59	0.98	34.55	0.98
0:22:34	31.37	68.32	36.95	0.99	34.91	0.99
0:22:44	31.41	68.32	36.91	0.99	34.87	0.98
0:22:54	31.66	68.32	36.66	0.98	34.62	0.98
0:23:04	31.41	68.32	36.91	0.99	34.87	0.98
0:23:14	31.28	68.32	37.04	0.99	35.00	0.99
0:23:24	31.61	68.32	36.71	0.98	34.67	0.98
0:23:34	31.69	68.32	36.63	0.98	34.59	0.98
0:23:44	31.44	68.32	36.88	0.98	34.84	0.98
0:23:54	31.53	68.32	36.79	0.98	34.75	0.98
0:24:04	31.20	68.32	37.12	0.99	35.08	0.99
0:24:14	31.79	68.32	36.52	0.98	34.48	0.97
0:24:24	31.41	68.32	36.91	0.99	34.87	0.98
0:24:34	31.82	68.32	36.50	0.97	34.46	0.97
0:24:44	31.50	68.32	36.82	0.98	34.78	0.98

0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:24:54	31.29	68.32	37.03	0.99	34.99	0.99
0:25:04	31.29	68.32	37.03	0.99	34.99	0.99
0:25:14	31.86	68.32	36.46	0.97	34.42	0.97
0:25:24	31.82	68.32	36.50	0.97	34.46	0.97
0:25:34	31.70	68.32	36.62	0.98	34.58	0.98
0:25:44	31.28	68.32	37.04	0.99	35.00	0.99
0:25:54	31.41	68.32	36.91	0.99	34.87	0.98
0:26:04	31.85	68.32	36.47	0.97	34.43	0.97
0:26:14	31.61	68.32	36.71	0.98	34.67	0.98
0:26:24	31.54	68.32	36.78	0.98	34.74	0.98
0:26:34	31.38	68.32	36.93	0.99	34.90	0.99
0:26:44	31.54	68.32	36.78	0.98	34.74	0.98
0:26:54	31.75	68.32	36.56	0.98	34.52	0.97
0:27:04	31.57	68.32	36.75	0.98	34.71	0.98
0:27:14	31.57	68.32	36.75	0.98	34.71	0.98
0:27:24	31.57	68.32	36.75	0.98	34.71	0.98
0:27:34	31.57	68.32	36.75	0.98	34.71	0.98
0:27:44	31.57	68.32	36.75	0.98	34.71	0.98
0:27:54	31.60	68.32	36.72	0.98	34.68	0.98
0:28:04	31.29	68.32	37.03	0.99	34.99	0.99
0:28:14	31.69	68.32	36.63	0.98	34.59	0.98
0:28:24	31.73	68.32	36.59	0.98	34.55	0.98
0:28:34	32.02	68.32	36.30	0.97	34.26	0.97
0:28:44	31.29	68.32	37.03	0.99	34.99	0.99
0:28:54	31.70	68.32	36.62	0.98	34.58	0.98
0:29:04	31.69	68.32	36.63	0.98	34.59	0.98
0:29:14	31.57	68.32	36.75	0.98	34.71	0.98
0:29:24	31.45	68.32	36.87	0.98	34.83	0.98
0:29:34	31.48	68.32	36.84	0.98	34.80	0.98
0:29:44	31.73	68.32	36.59	0.98	34.55	0.98
0:30:14	31.86	68.32	36.46	0.97	34.42	0.97
0:30:44	31.61	68.32	36.71	0.98	34.67	0.98
0:31:14	31.78	68.32	36.54	0.98	34.50	0.97
0:31:44	31.98	68.32	36.34	0.97	34.30	0.97
0:32:14	32.00	68.32	36.31	0.97	34.27	0.97
0:32:44	31.66	68.32	36.66	0.98	34.62	0.98
0:33:14	31.85	68.32	36.47	0.97	34.43	0.97
0:33:44	31.89	68.32	36.43	0.97	34.39	0.97
0:34:14	31.61	68.32	36.71	0.98	34.67	0.98
0:34:44	31.60	68.32	36.72	0.98	34.68	0.98
0:35:14	31.70	68.32	36.62	0.98	34.58	0.98
0:35:44	31.64	68.32	36.68	0.98	34.64	0.98
0:36:14	31.69	68.32	36.63	0.98	34.59	0.98
0:36:44	31.50	68.32	36.82	0.98	34.78	0.98
0:37:14	32.19	68.32	36.13	0.96	34.09	0.96
0:37:44	31.60	68.32	36.72	0.98	34.68	0.98
0:38:14	31.75	68.32	36.56	0.98	34.52	0.97
0:38:44	31.73	68.32	36.59	0.98	34.55	0.98
0:39:14	32.16	68.32	36.15	0.97	34.12	0.96
0:39:44	31.78	68.32	36.54	0.98	34.50	0.97

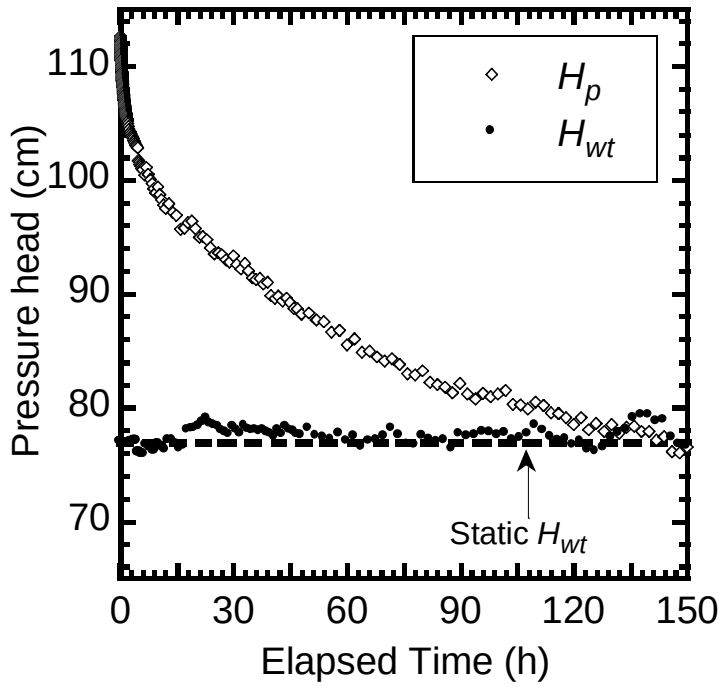
0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:40:14	31.66	68.32	36.66	0.98	34.62	0.98
0:40:44	31.70	68.32	36.62	0.98	34.58	0.98
0:41:14	32.11	68.32	36.21	0.97	34.17	0.96
0:41:44	31.73	68.32	36.59	0.98	34.55	0.98
0:42:14	32.32	68.32	36.00	0.96	33.96	0.96
0:42:44	32.35	68.32	35.97	0.96	33.93	0.96
0:43:14	32.14	68.32	36.18	0.97	34.14	0.96
0:43:44	32.16	68.32	36.15	0.97	34.12	0.96
0:44:14	32.19	68.32	36.13	0.96	34.09	0.96
0:44:44	31.91	68.32	36.41	0.97	34.37	0.97
0:45:14	31.98	68.32	36.34	0.97	34.30	0.97
0:45:44	32.04	68.32	36.27	0.97	34.23	0.97
0:46:14	31.78	68.32	36.54	0.98	34.50	0.97
0:46:44	32.43	68.32	35.89	0.96	33.85	0.96
0:47:14	32.42	68.32	35.90	0.96	33.86	0.96
0:47:44	32.11	68.32	36.21	0.97	34.17	0.96
0:48:14	33.32	68.85	35.54	0.95	32.96	0.93
0:48:44	33.02	68.85	35.83	0.96	33.25	0.94
0:49:14	33.00	68.85	35.85	0.96	33.28	0.94
0:49:44	33.21	68.85	35.64	0.95	33.07	0.93
0:50:14	33.25	68.85	35.60	0.95	33.03	0.93
0:50:44	33.37	68.85	35.48	0.95	32.91	0.93
0:51:14	33.32	68.85	35.54	0.95	32.96	0.93
0:51:44	33.61	68.85	35.25	0.94	32.67	0.92
0:52:14	33.34	68.85	35.51	0.95	32.94	0.93
0:52:44	33.13	68.85	35.72	0.95	33.15	0.94
0:53:14	33.61	68.85	35.25	0.94	32.67	0.92
0:53:44	33.48	68.85	35.38	0.94	32.80	0.93
0:54:14	33.48	68.85	35.38	0.94	32.80	0.93
0:54:44	33.38	68.85	35.47	0.95	32.90	0.93
0:55:14	33.63	68.85	35.22	0.94	32.65	0.92
0:55:44	33.73	68.85	35.13	0.94	32.55	0.92
0:56:14	33.32	68.85	35.54	0.95	32.96	0.93
0:56:44	33.50	68.85	35.35	0.94	32.78	0.93
0:57:14	33.18	68.85	35.67	0.95	33.10	0.93
0:57:44	33.61	68.85	35.25	0.94	32.67	0.92
0:58:14	33.38	68.85	35.47	0.95	32.90	0.93
0:58:44	33.28	68.85	35.58	0.95	33.00	0.93
0:59:14	33.50	68.85	35.35	0.94	32.78	0.93
0:59:44	33.25	68.85	35.60	0.95	33.03	0.93
1:00:44	33.44	68.85	35.42	0.95	32.84	0.93
1:01:44	33.54	68.85	35.31	0.94	32.74	0.92
1:02:44	33.84	68.85	35.01	0.93	32.43	0.92
1:03:44	33.61	68.85	35.25	0.94	32.67	0.92
1:04:44	33.91	68.85	34.94	0.93	32.37	0.91
1:05:44	33.59	68.85	35.26	0.94	32.69	0.92
1:06:44	33.98	68.85	34.88	0.93	32.30	0.91
1:07:44	33.86	68.85	34.99	0.93	32.42	0.92
1:08:44	33.59	68.85	35.26	0.94	32.69	0.92
1:09:44	33.84	68.85	35.01	0.93	32.43	0.92

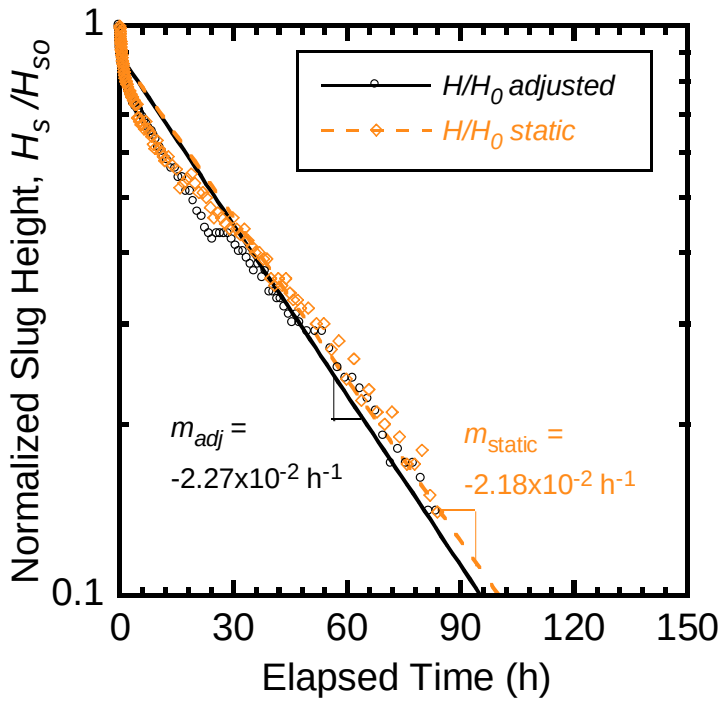
0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:10:44	34.10	68.85	34.76	0.93	32.18	0.91
1:11:44	33.95	68.85	34.90	0.93	32.33	0.91
1:12:44	34.20	68.85	34.65	0.93	32.08	0.91
1:13:44	33.92	68.85	34.93	0.93	32.35	0.91
1:14:44	33.98	68.85	34.88	0.93	32.30	0.91
1:15:44	34.02	68.85	34.84	0.93	32.26	0.91
1:16:44	34.18	68.85	34.68	0.93	32.10	0.91
1:17:44	34.18	68.85	34.68	0.93	32.10	0.91
1:18:44	34.30	68.85	34.56	0.92	31.98	0.90
1:19:44	34.27	68.85	34.58	0.92	32.01	0.90
1:20:44	34.52	68.85	34.33	0.92	31.76	0.90
1:21:44	34.04	68.85	34.81	0.93	32.24	0.91
1:22:44	34.43	68.85	34.43	0.92	31.85	0.90
1:23:44	34.16	68.85	34.69	0.93	32.12	0.91
1:24:44	34.39	68.85	34.47	0.92	31.89	0.90
1:25:44	34.41	68.85	34.44	0.92	31.87	0.90
1:26:44	34.27	68.85	34.58	0.92	32.01	0.90
1:27:44	34.73	68.85	34.12	0.91	31.55	0.89
1:28:44	34.49	68.85	34.36	0.92	31.79	0.90
1:29:44	34.41	68.85	34.44	0.92	31.87	0.90
1:30:44	34.45	68.85	34.40	0.92	31.83	0.90
1:31:44	34.26	68.85	34.60	0.92	32.02	0.90
1:32:44	34.33	68.85	34.52	0.92	31.95	0.90
1:33:44	34.36	68.85	34.49	0.92	31.92	0.90
1:34:44	34.49	68.85	34.36	0.92	31.79	0.90
1:35:44	34.81	68.85	34.04	0.91	31.47	0.89
1:36:44	34.98	68.85	33.87	0.90	31.30	0.88
1:37:44	34.55	68.85	34.31	0.92	31.73	0.90
1:38:44	34.57	68.85	34.28	0.92	31.71	0.90
1:39:44	35.02	68.85	33.83	0.90	31.26	0.88
1:40:44	34.74	68.85	34.11	0.91	31.53	0.89
1:41:44	34.74	68.85	34.11	0.91	31.53	0.89
1:42:44	34.59	68.85	34.27	0.92	31.69	0.90
1:43:44	34.73	68.85	34.12	0.91	31.55	0.89
1:44:44	34.90	68.85	33.95	0.91	31.38	0.89
1:45:44	35.15	68.85	33.70	0.90	31.13	0.88
1:46:44	34.74	68.85	34.11	0.91	31.53	0.89
1:47:44	34.74	68.85	34.11	0.91	31.53	0.89
1:48:44	34.68	68.57	33.89	0.90	31.60	0.89
1:49:44	34.68	68.57	33.89	0.90	31.60	0.89
1:50:44	34.68	68.57	33.89	0.90	31.60	0.89
1:51:44	35.14	68.57	33.43	0.89	31.14	0.88
1:52:44	35.00	68.57	33.57	0.90	31.28	0.88
1:53:44	35.22	68.57	33.35	0.89	31.06	0.88
1:54:44	35.15	68.57	33.41	0.89	31.13	0.88
1:55:44	35.15	68.57	33.41	0.89	31.13	0.88
1:56:44	35.31	68.57	33.26	0.89	30.97	0.87
1:57:44	35.21	68.57	33.36	0.89	31.07	0.88
1:58:44	34.98	68.57	33.59	0.90	31.30	0.88
1:59:44	35.41	68.57	33.16	0.89	30.87	0.87

0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:09:44	35.37	68.57	33.20	0.89	30.91	0.87
2:19:44	35.52	68.57	33.04	0.88	30.75	0.87
2:29:44	35.75	68.57	32.82	0.88	30.53	0.86
2:39:44	35.93	68.57	32.63	0.87	30.35	0.86
2:49:44	36.29	68.37	32.08	0.86	29.99	0.85
2:59:44	36.95	68.37	31.42	0.84	29.33	0.83
3:09:44	36.73	68.37	31.64	0.84	29.55	0.83
3:19:44	37.43	68.37	30.94	0.83	28.85	0.81
3:29:44	37.65	68.37	30.72	0.82	28.63	0.81
3:39:44	37.71	68.37	30.67	0.82	28.57	0.81
3:49:44	37.90	68.35	30.44	0.81	28.37	0.80
3:59:44	38.06	68.35	30.29	0.81	28.22	0.80
4:09:44	38.37	68.35	29.98	0.80	27.91	0.79
4:19:44	38.66	68.35	29.69	0.79	27.62	0.78
4:29:44	38.94	68.35	29.41	0.79	27.34	0.77
4:39:44	39.16	68.35	29.19	0.78	27.12	0.77
4:49:44	39.41	68.54	29.13	0.78	26.87	0.76
4:59:44	39.64	68.54	28.91	0.77	26.64	0.75
5:09:44	39.95	68.54	28.59	0.76	26.33	0.74
5:19:44	40.25	68.54	28.30	0.76	26.03	0.74
5:29:44	40.54	68.54	28.01	0.75	25.74	0.73
5:39:44	40.81	68.54	27.73	0.74	25.47	0.72
5:49:44	41.16	68.66	27.50	0.73	25.12	0.71
5:59:44	41.45	68.66	27.21	0.73	24.83	0.70
6:29:44	42.23	68.66	26.43	0.71	24.05	0.68
6:59:44	41.68	67.67	25.98	0.69	24.59	0.69
7:29:44	42.23	67.67	25.44	0.68	24.05	0.68
7:59:44	42.74	67.66	24.92	0.67	23.54	0.66
8:29:44	43.24	67.66	24.41	0.65	23.03	0.65
8:59:44	43.66	67.66	24.01	0.64	22.62	0.64
9:29:44	44.06	67.66	23.60	0.63	22.21	0.63
9:59:44	44.63	67.74	23.11	0.62	21.65	0.61
10:29:44	45.04	67.74	22.70	0.61	21.24	0.60
10:59:44	45.56	67.83	22.27	0.59	20.72	0.59
11:29:44	46.10	67.83	21.73	0.58	20.18	0.57
11:59:44	46.54	67.83	21.29	0.57	19.74	0.56
12:59:44	47.24	67.95	20.72	0.55	19.04	0.54
13:59:44	48.10	67.94	19.84	0.53	18.18	0.51
14:59:44	48.73	67.89	19.16	0.51	17.55	0.50
15:59:44	49.23	68.13	18.89	0.50	17.04	0.48
16:59:44	49.19	67.47	18.28	0.49	17.09	0.48
17:59:44	50.28	67.59	17.31	0.46	16.00	0.45
18:59:44	50.62	67.50	16.88	0.45	15.66	0.44
19:59:44	51.68	68.27	16.59	0.44	14.60	0.41
20:59:44	51.59	67.87	16.28	0.43	14.69	0.41
21:59:44	52.66	68.35	15.69	0.42	13.62	0.38
22:59:44	52.16	67.76	15.61	0.42	14.12	0.40
23:59:44	52.61	68.27	15.66	0.42	13.67	0.39
24:59:44	53.79	68.76	14.97	0.40	12.49	0.35
25:59:44	53.50	68.39	14.89	0.40	12.78	0.36

0+78.9	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
26:59:44	53.62	68.25	14.64	0.39	12.66	0.36
27:59:44	54.74	68.24	13.50	0.36	11.54	0.33
28:59:44	55.02	68.41	13.39	0.36	11.26	0.32
29:59:44	54.77	67.45	12.69	0.34	11.51	0.33
30:59:44	55.36	67.54	12.18	0.33	10.92	0.31
31:59:44	55.90	67.58	11.67	0.31	10.38	0.29
32:59:44	56.29	67.54	11.25	0.30	9.99	0.28
33:59:44	56.72	67.43	10.70	0.29	9.56	0.27
34:59:44	56.76	67.37	10.61	0.28	9.52	0.27
35:59:44	57.20	67.18	9.98	0.27	9.08	0.26
36:59:44	58.14	68.01	9.88	0.26	8.14	0.23
37:59:44	58.28	67.84	9.56	0.26	7.99	0.23
38:59:44	58.35	67.90	9.55	0.26	7.93	0.22
39:59:44	59.01	68.04	9.03	0.24	7.27	0.21
40:59:44	58.38	67.11	8.73	0.23	7.90	0.22
41:59:44	58.63	67.08	8.46	0.23	7.65	0.22
42:59:44	58.86	66.85	7.99	0.21	7.41	0.21
43:59:44	59.49	67.57	8.08	0.22	6.79	0.19
44:59:44	60.20	68.06	7.86	0.21	6.08	0.17
45:59:44	60.81	68.49	7.68	0.20	5.47	0.15
46:59:44	59.95	67.75	7.80	0.21	6.33	0.18
47:59:44	60.39	68.05	7.66	0.20	5.89	0.17
49:59:44	60.50	68.18	7.68	0.21	5.78	0.16
51:59:44	61.66	68.76	7.09	0.19	4.62	0.13
53:59:44	61.48	67.70	6.23	0.17	4.80	0.14
55:59:44	61.89	67.55	5.67	0.15	4.39	0.12
57:59:44	62.49	67.88	5.39	0.14	3.78	0.11
59:59:44	62.59	67.28	4.69	0.13	3.69	0.10
61:59:44	62.93	66.98	4.05	0.11	3.35	0.09
63:59:44	63.02	66.93	3.91	0.10	3.26	0.09
65:59:44	63.84	66.76	2.92	0.08	2.44	0.07
67:59:44	64.22	66.87	2.65	0.07	2.06	0.06
69:59:44	63.85	66.56	2.71	0.07	2.43	0.07
71:59:44	64.08	67.12	3.04	0.08	2.20	0.06
73:59:44	63.88	66.48	2.61	0.07	2.40	0.07
75:59:44	64.10	66.31	2.21	0.06	2.18	0.06
77:59:44	64.19	65.49	1.30	0.03	2.09	0.06
79:59:44	64.67	65.09	0.43	0.01	1.61	0.05
81:59:44	65.30	65.32	0.02	0.00	0.98	0.03
83:59:44	65.62	65.49	-0.13	0.00	0.66	0.02
85:59:44	65.90	65.69	-0.21	-0.01	0.38	0.01
87:59:44	65.52	65.27	-0.26	-0.01	0.76	0.02
89:59:44	65.57	64.77	-0.81	-0.02	0.70	0.02
91:59:44	65.19	64.61	-0.58	-0.02	1.09	0.03
93:59:44	65.90	65.71	-0.19	0.00	0.38	0.01
95:59:44	65.42	65.64	0.22	0.01	0.86	0.02
97:59:44	65.74	65.80	0.06	0.00	0.54	0.02
99:59:44	66.42	66.40	-0.02	0.00	-0.14	0.00
101:59:44	65.94	64.66	-1.28	-0.03	0.34	0.01

Test Location (m)	**0+78.9**	**Effective Stress on date of test (kPa)**	**11.2**
Depth (m)	3.0	**Test # in well**	2
Well #	7	**Test Type**	Rate of Fall
Start Date of Test	10/3/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	77.0
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	35.7
k_{adj} (cm/s)	1.86E-07	**k_{static} (cm/s)**	1.79E-07





0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	112.67	76.99	35.68	1.00	35.68	1.00
0:00:10	112.63	76.99	35.65	1.00	35.65	1.00
0:00:20	112.54	76.99	35.55	1.00	35.55	1.00
0:00:30	112.54	76.99	35.55	1.00	35.55	1.00
0:00:40	112.54	76.99	35.55	1.00	35.55	1.00
0:00:50	112.47	76.99	35.49	0.99	35.49	0.99
0:01:00	112.45	76.99	35.46	0.99	35.46	0.99
0:01:10	112.39	76.99	35.41	0.99	35.41	0.99
0:01:20	112.35	76.99	35.37	0.99	35.37	0.99
0:01:30	112.33	76.99	35.34	0.99	35.34	0.99
0:01:40	112.26	76.99	35.28	0.99	35.28	0.99
0:01:50	112.26	76.99	35.28	0.99	35.28	0.99
0:02:00	112.22	76.99	35.24	0.99	35.24	0.99
0:02:10	112.17	76.99	35.18	0.99	35.18	0.99
0:02:20	112.16	76.99	35.17	0.99	35.17	0.99
0:02:30	112.13	76.99	35.14	0.98	35.14	0.98
0:02:40	112.09	76.99	35.10	0.98	35.10	0.98
0:02:50	112.04	76.99	35.05	0.98	35.05	0.98
0:03:00	112.00	76.99	35.01	0.98	35.01	0.98
0:03:10	111.97	76.99	34.98	0.98	34.98	0.98
0:03:20	111.97	76.99	34.98	0.98	34.98	0.98
0:03:30	111.90	76.99	34.92	0.98	34.92	0.98
0:03:40	111.88	76.99	34.89	0.98	34.89	0.98
0:03:50	111.88	76.99	34.89	0.98	34.89	0.98
0:04:00	111.84	76.99	34.85	0.98	34.85	0.98
0:04:10	111.81	76.99	34.83	0.98	34.83	0.98
0:04:20	111.75	76.99	34.76	0.97	34.76	0.97
0:04:30	111.72	76.99	34.73	0.97	34.73	0.97
0:04:40	111.72	76.99	34.73	0.97	34.73	0.97
0:04:50	111.68	76.99	34.69	0.97	34.69	0.97
0:05:00	111.64	76.99	34.65	0.97	34.65	0.97
0:05:10	111.61	76.99	34.63	0.97	34.63	0.97
0:05:20	111.59	76.99	34.60	0.97	34.60	0.97
0:05:30	111.59	76.99	34.60	0.97	34.60	0.97
0:05:40	111.55	76.99	34.56	0.97	34.56	0.97
0:05:50	111.49	76.99	34.51	0.97	34.51	0.97
0:06:00	111.45	76.99	34.47	0.97	34.47	0.97
0:06:10	111.45	76.99	34.47	0.97	34.47	0.97
0:06:20	111.45	76.99	34.47	0.97	34.47	0.97
0:06:30	111.41	76.99	34.43	0.96	34.43	0.96
0:06:40	111.36	76.99	34.38	0.96	34.38	0.96
0:06:50	111.33	76.99	34.35	0.96	34.35	0.96
0:07:00	111.30	76.99	34.31	0.96	34.31	0.96
0:07:10	111.30	76.99	34.31	0.96	34.31	0.96
0:07:20	111.23	76.99	34.24	0.96	34.24	0.96
0:07:30	111.23	76.99	34.24	0.96	34.24	0.96
0:07:40	111.19	76.99	34.20	0.96	34.20	0.96
0:07:50	111.19	76.99	34.20	0.96	34.20	0.96
0:08:00	111.14	76.99	34.15	0.96	34.15	0.96
0:08:10	111.14	76.99	34.15	0.96	34.15	0.96

0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	111.07	76.99	34.08	0.96	34.08	0.96
0:08:30	111.07	76.99	34.08	0.96	34.08	0.96
0:08:40	111.03	76.99	34.05	0.95	34.05	0.95
0:08:50	111.00	76.99	34.02	0.95	34.02	0.95
0:09:00	110.98	76.99	33.99	0.95	33.99	0.95
0:09:10	110.97	76.99	33.98	0.95	33.98	0.95
0:09:20	110.94	76.99	33.95	0.95	33.95	0.95
0:09:30	110.89	76.99	33.90	0.95	33.90	0.95
0:09:40	110.87	76.99	33.89	0.95	33.89	0.95
0:09:50	110.85	76.99	33.86	0.95	33.86	0.95
0:10:00	110.81	76.99	33.82	0.95	33.82	0.95
0:10:10	110.81	76.99	33.82	0.95	33.82	0.95
0:10:20	110.75	76.99	33.77	0.95	33.77	0.95
0:10:30	110.74	76.99	33.75	0.95	33.75	0.95
0:10:40	110.71	76.99	33.73	0.95	33.73	0.95
0:10:50	110.71	76.99	33.73	0.95	33.73	0.95
0:11:00	110.66	76.99	33.67	0.94	33.67	0.94
0:11:10	110.62	76.99	33.63	0.94	33.63	0.94
0:11:20	110.58	76.99	33.60	0.94	33.60	0.94
0:11:30	110.59	76.99	33.61	0.94	33.61	0.94
0:11:40	110.55	76.99	33.57	0.94	33.57	0.94
0:11:50	110.53	76.99	33.54	0.94	33.54	0.94
0:12:00	110.53	76.99	33.54	0.94	33.54	0.94
0:12:10	110.49	76.99	33.50	0.94	33.50	0.94
0:12:20	110.46	76.99	33.48	0.94	33.48	0.94
0:12:30	110.44	76.99	33.45	0.94	33.45	0.94
0:12:40	110.40	76.99	33.41	0.94	33.41	0.94
0:12:50	110.40	76.99	33.41	0.94	33.41	0.94
0:13:00	110.36	76.99	33.37	0.94	33.37	0.94
0:13:10	110.36	76.99	33.37	0.94	33.37	0.94
0:13:20	110.30	76.99	33.32	0.93	33.32	0.93
0:13:30	110.28	76.99	33.29	0.93	33.29	0.93
0:13:40	110.28	76.99	33.29	0.93	33.29	0.93
0:13:50	110.21	76.99	33.23	0.93	33.23	0.93
0:14:00	110.24	76.99	33.25	0.93	33.25	0.93
0:14:10	110.21	76.99	33.23	0.93	33.23	0.93
0:14:20	110.17	76.99	33.19	0.93	33.19	0.93
0:14:30	110.13	76.99	33.15	0.93	33.15	0.93
0:14:40	110.15	76.99	33.16	0.93	33.16	0.93
0:14:50	110.11	76.99	33.12	0.93	33.12	0.93
0:15:00	110.13	76.99	33.15	0.93	33.15	0.93
0:15:10	110.08	76.99	33.09	0.93	33.09	0.93
0:15:20	110.04	76.99	33.05	0.93	33.05	0.93
0:15:30	110.08	76.99	33.09	0.93	33.09	0.93
0:15:40	110.01	76.99	33.03	0.93	33.03	0.93
0:15:50	109.99	76.99	33.00	0.92	33.00	0.92
0:16:00	109.97	76.99	32.99	0.92	32.99	0.92
0:16:10	109.95	76.99	32.96	0.92	32.96	0.92
0:16:20	109.95	76.99	32.96	0.92	32.96	0.92
0:16:30	109.91	76.99	32.92	0.92	32.92	0.92

0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	109.88	76.99	32.89	0.92	32.89	0.92
0:16:50	109.85	76.99	32.87	0.92	32.87	0.92
0:17:00	109.83	76.99	32.84	0.92	32.84	0.92
0:17:10	109.83	76.99	32.84	0.92	32.84	0.92
0:17:20	109.83	76.99	32.84	0.92	32.84	0.92
0:17:30	109.79	76.99	32.80	0.92	32.80	0.92
0:17:40	109.81	76.99	32.83	0.92	32.83	0.92
0:17:50	109.76	76.99	32.78	0.92	32.78	0.92
0:18:00	109.79	76.99	32.80	0.92	32.80	0.92
0:18:10	109.72	76.99	32.74	0.92	32.74	0.92
0:18:20	109.75	76.99	32.76	0.92	32.76	0.92
0:18:30	109.68	76.99	32.70	0.92	32.70	0.92
0:18:40	109.66	76.99	32.67	0.92	32.67	0.92
0:18:50	109.69	76.99	32.71	0.92	32.71	0.92
0:19:00	109.66	76.99	32.67	0.92	32.67	0.92
0:19:10	109.60	76.99	32.62	0.91	32.62	0.91
0:19:20	109.60	76.99	32.62	0.91	32.62	0.91
0:19:30	109.59	76.99	32.60	0.91	32.60	0.91
0:19:40	109.59	76.99	32.60	0.91	32.60	0.91
0:19:50	109.54	76.99	32.55	0.91	32.55	0.91
0:20:20	109.50	76.99	32.51	0.91	32.51	0.91
0:20:50	109.40	76.99	32.42	0.91	32.42	0.91
0:21:20	109.38	76.99	32.39	0.91	32.39	0.91
0:21:50	109.31	76.99	32.33	0.91	32.33	0.91
0:22:20	109.30	76.99	32.31	0.91	32.31	0.91
0:22:50	109.23	76.99	32.25	0.90	32.25	0.90
0:23:20	109.21	76.99	32.22	0.90	32.22	0.90
0:23:50	109.17	76.99	32.18	0.90	32.18	0.90
0:24:20	109.11	76.99	32.13	0.90	32.13	0.90
0:24:50	109.09	76.99	32.10	0.90	32.10	0.90
0:25:20	109.05	76.99	32.06	0.90	32.06	0.90
0:25:50	108.99	76.99	32.01	0.90	32.01	0.90
0:26:20	108.95	76.99	31.97	0.90	31.97	0.90
0:26:50	108.95	76.99	31.97	0.90	31.97	0.90
0:27:20	108.91	76.99	31.93	0.89	31.93	0.89
0:27:50	108.89	76.99	31.90	0.89	31.90	0.89
0:28:20	108.85	76.99	31.86	0.89	31.86	0.89
0:28:50	108.82	76.99	31.84	0.89	31.84	0.89
0:29:20	108.76	76.99	31.77	0.89	31.77	0.89
0:29:50	108.73	76.99	31.74	0.89	31.74	0.89
0:30:20	108.69	76.99	31.70	0.89	31.70	0.89
0:30:50	108.66	76.99	31.68	0.89	31.68	0.89
0:31:20	108.64	76.99	31.65	0.89	31.65	0.89
0:31:50	108.57	76.99	31.59	0.89	31.59	0.89
0:32:20	108.56	76.99	31.57	0.88	31.57	0.88
0:32:50	108.53	76.99	31.55	0.88	31.55	0.88
0:33:20	108.47	76.99	31.48	0.88	31.48	0.88
0:33:50	108.47	76.99	31.48	0.88	31.48	0.88
0:34:20	108.40	76.92	31.48	0.88	31.41	0.88
0:34:50	108.37	76.92	31.45	0.88	31.39	0.88

0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:35:20	108.33	76.92	31.41	0.88	31.35	0.88
0:35:50	108.31	76.92	31.38	0.88	31.32	0.88
0:36:20	108.31	76.92	31.38	0.88	31.32	0.88
0:36:50	108.25	76.92	31.33	0.88	31.27	0.88
0:37:20	108.21	76.92	31.29	0.88	31.23	0.88
0:37:50	108.19	76.92	31.27	0.88	31.20	0.87
0:38:20	108.17	76.92	31.25	0.88	31.19	0.87
0:38:50	108.15	76.92	31.23	0.88	31.16	0.87
0:39:20	108.08	76.92	31.16	0.87	31.10	0.87
0:39:50	108.06	76.92	31.13	0.87	31.07	0.87
0:40:20	108.06	76.92	31.13	0.87	31.07	0.87
0:40:50	107.99	76.92	31.07	0.87	31.00	0.87
0:41:20	108.02	76.92	31.09	0.87	31.03	0.87
0:41:50	107.96	76.92	31.04	0.87	30.98	0.87
0:42:20	107.95	76.92	31.03	0.87	30.96	0.87
0:42:50	107.90	76.92	30.98	0.87	30.91	0.87
0:43:20	107.87	76.92	30.95	0.87	30.88	0.87
0:43:50	107.80	76.92	30.88	0.87	30.82	0.86
0:44:20	107.79	76.92	30.87	0.87	30.81	0.86
0:44:50	107.80	76.92	30.88	0.87	30.82	0.86
0:45:20	107.73	76.92	30.80	0.86	30.74	0.86
0:45:50	107.73	76.92	30.80	0.86	30.74	0.86
0:46:20	107.67	76.92	30.75	0.86	30.69	0.86
0:46:50	107.65	76.92	30.72	0.86	30.66	0.86
0:47:20	107.61	76.92	30.68	0.86	30.62	0.86
0:47:50	107.61	76.92	30.68	0.86	30.62	0.86
0:48:20	107.57	76.92	30.64	0.86	30.58	0.86
0:48:50	107.54	76.92	30.62	0.86	30.55	0.86
0:49:20	107.49	76.92	30.56	0.86	30.50	0.85
0:49:50	107.49	76.92	30.56	0.86	30.50	0.85
0:50:50	107.42	76.92	30.50	0.85	30.43	0.85
0:51:50	107.41	76.92	30.49	0.85	30.42	0.85
0:52:50	107.31	76.92	30.39	0.85	30.33	0.85
0:53:50	107.25	76.92	30.33	0.85	30.26	0.85
0:54:50	107.25	76.92	30.33	0.85	30.26	0.85
0:55:50	107.18	76.92	30.26	0.85	30.20	0.85
0:56:50	107.10	76.92	30.18	0.85	30.12	0.84
0:57:50	107.06	76.92	30.14	0.84	30.08	0.84
0:58:50	107.04	76.92	30.12	0.84	30.05	0.84
0:59:50	106.96	76.92	30.04	0.84	29.97	0.84
1:00:50	106.93	76.92	30.01	0.84	29.95	0.84
1:01:50	106.87	76.92	29.94	0.84	29.88	0.84
1:02:50	106.80	76.92	29.88	0.84	29.81	0.84
1:03:50	106.75	76.92	29.82	0.84	29.76	0.83
1:04:50	106.73	76.92	29.81	0.84	29.75	0.83
1:05:50	106.65	76.92	29.73	0.83	29.67	0.83
1:06:50	106.64	76.92	29.72	0.83	29.65	0.83
1:07:50	106.59	76.92	29.67	0.83	29.60	0.83
1:08:50	106.52	76.92	29.60	0.83	29.54	0.83
1:09:50	106.51	76.92	29.59	0.83	29.52	0.83

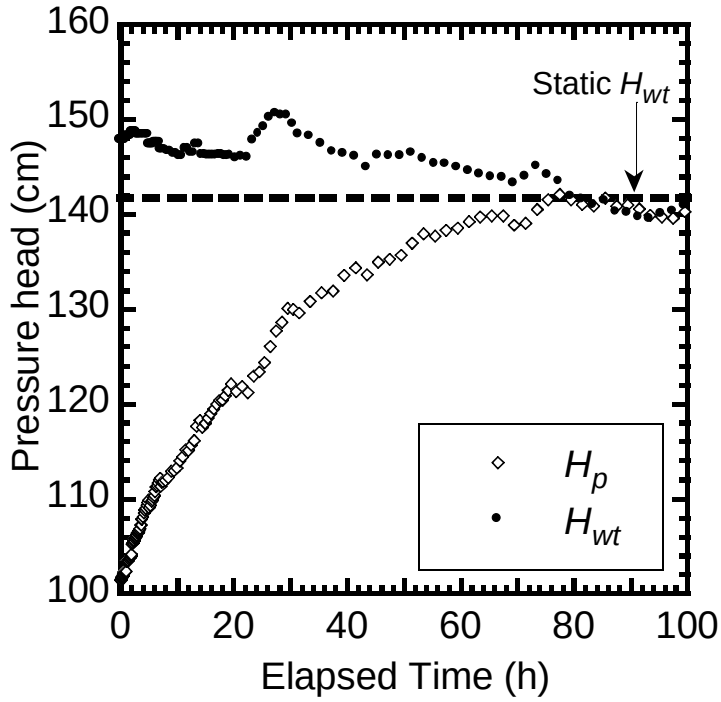
0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:10:50	106.43	76.92	29.51	0.83	29.44	0.83
1:11:50	106.43	76.92	29.51	0.83	29.44	0.83
1:12:50	106.36	76.92	29.44	0.83	29.38	0.82
1:13:50	106.35	76.92	29.43	0.82	29.36	0.82
1:14:50	106.35	76.92	29.43	0.82	29.36	0.82
1:15:50	106.35	76.92	29.43	0.82	29.36	0.82
1:16:50	106.30	76.92	29.38	0.82	29.31	0.82
1:17:50	106.28	76.92	29.36	0.82	29.30	0.82
1:18:50	106.20	76.92	29.28	0.82	29.22	0.82
1:19:50	106.16	76.92	29.24	0.82	29.18	0.82
1:20:50	106.14	76.92	29.22	0.82	29.15	0.82
1:21:50	106.03	76.92	29.11	0.82	29.05	0.81
1:22:50	106.03	76.92	29.11	0.82	29.05	0.81
1:23:50	105.97	76.92	29.04	0.81	28.98	0.81
1:24:50	105.90	76.92	28.98	0.81	28.91	0.81
1:25:50	105.87	76.92	28.95	0.81	28.89	0.81
1:26:50	105.83	76.92	28.91	0.81	28.85	0.81
1:27:50	105.81	76.92	28.89	0.81	28.82	0.81
1:28:50	105.78	76.92	28.86	0.81	28.79	0.81
1:29:50	105.75	76.92	28.83	0.81	28.77	0.81
1:30:50	105.69	76.92	28.77	0.81	28.70	0.80
1:31:50	105.66	76.92	28.74	0.81	28.68	0.80
1:32:50	105.65	76.92	28.73	0.81	28.66	0.80
1:33:50	105.60	76.92	28.67	0.80	28.61	0.80
1:34:50	105.56	76.93	28.63	0.80	28.57	0.80
1:35:50	105.53	76.93	28.60	0.80	28.54	0.80
1:36:50	105.53	76.93	28.60	0.80	28.54	0.80
1:37:50	105.52	76.93	28.59	0.80	28.53	0.80
1:38:50	105.49	76.93	28.56	0.80	28.50	0.80
1:39:50	105.49	76.93	28.56	0.80	28.50	0.80
1:40:50	105.45	76.93	28.52	0.80	28.46	0.80
1:41:50	105.45	76.93	28.52	0.80	28.46	0.80
1:42:50	105.40	76.93	28.47	0.80	28.41	0.80
1:43:50	105.37	76.93	28.44	0.80	28.39	0.80
1:44:50	105.40	76.93	28.47	0.80	28.41	0.80
1:45:50	105.36	76.93	28.43	0.80	28.37	0.80
1:46:50	105.33	76.93	28.40	0.80	28.34	0.79
1:47:50	105.33	76.93	28.40	0.80	28.34	0.79
1:48:50	105.26	76.93	28.34	0.79	28.28	0.79
1:49:50	105.21	76.93	28.28	0.79	28.23	0.79
1:59:50	105.01	76.93	28.08	0.79	28.03	0.79
2:09:50	104.75	76.93	27.82	0.78	27.76	0.78
2:19:50	104.50	76.93	27.57	0.77	27.51	0.77
2:29:50	104.30	76.93	27.37	0.77	27.31	0.77
2:39:50	104.09	77.01	27.08	0.76	27.10	0.76
2:49:50	103.96	77.01	29.74	0.76	29.77	0.76
2:59:50	103.92	77.01	29.70	0.75	29.73	0.75
3:09:50	103.80	77.01	26.78	0.75	26.81	0.75
3:19:50	103.70	77.01	26.69	0.75	26.72	0.75
3:29:50	103.48	77.01	26.47	0.74	26.49	0.74

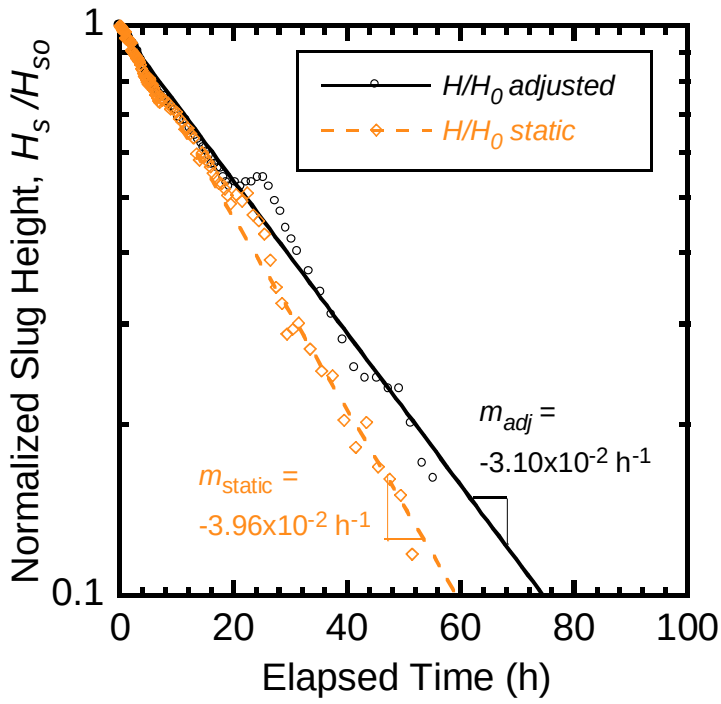
0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:39:50	103.44	77.08	26.36	0.74	26.45	0.74
3:49:50	103.26	77.08	26.17	0.73	26.27	0.74
3:59:50	103.15	77.08	26.07	0.73	26.16	0.73
4:09:50	103.06	77.08	25.97	0.73	26.07	0.73
4:19:50	102.94	77.08	25.85	0.72	25.95	0.73
4:29:50	102.88	77.08	25.80	0.72	25.90	0.73
4:39:50	101.77	76.06	25.71	0.72	24.79	0.69
4:49:50	101.77	76.06	25.71	0.72	24.79	0.69
4:59:50	101.61	76.06	25.55	0.72	24.63	0.69
5:09:50	101.43	76.06	25.37	0.71	24.44	0.68
5:19:50	101.36	76.06	25.30	0.71	24.38	0.68
5:29:50	101.24	76.06	25.19	0.71	24.26	0.68
5:39:50	101.07	75.93	25.14	0.70	24.08	0.67
5:49:50	100.95	75.93	25.02	0.70	23.97	0.67
6:19:50	100.50	75.93	24.57	0.69	23.52	0.66
6:49:50	101.14	76.74	24.40	0.68	24.15	0.68
7:19:50	100.56	76.74	23.82	0.67	23.57	0.66
7:49:50	100.11	76.50	23.61	0.66	23.12	0.65
8:19:50	99.72	76.50	23.22	0.65	22.74	0.64
8:49:50	99.25	76.21	23.03	0.65	22.26	0.62
9:19:50	98.92	76.21	22.70	0.64	21.93	0.61
9:49:50	99.43	76.83	22.60	0.63	22.45	0.63
10:19:50	98.76	76.83	21.93	0.61	21.77	0.61
10:49:50	98.28	76.56	21.72	0.61	21.30	0.60
11:19:50	97.87	76.56	21.31	0.60	20.89	0.59
11:49:50	97.54	76.35	21.20	0.59	20.56	0.58
12:49:50	97.93	77.15	20.78	0.58	20.94	0.59
13:49:50	97.21	77.12	20.10	0.56	20.23	0.57
14:49:50	96.94	76.83	20.11	0.56	19.95	0.56
15:49:50	95.69	76.36	19.34	0.54	18.71	0.52
16:49:50	95.80	76.68	19.12	0.54	18.81	0.53
17:49:50	96.29	78.03	18.26	0.51	19.31	0.54
18:49:50	96.44	78.17	18.26	0.51	19.45	0.55
19:49:50	95.78	78.20	17.58	0.49	18.79	0.53
20:49:50	95.03	78.37	16.65	0.47	18.04	0.51
21:49:50	95.07	78.70	16.37	0.46	18.08	0.51
22:49:50	94.83	79.07	15.76	0.44	17.85	0.50
23:49:50	94.07	78.59	15.48	0.43	17.08	0.48
24:49:50	93.54	78.46	15.08	0.42	16.55	0.46
25:49:50	93.62	78.31	15.31	0.43	16.63	0.47
26:49:50	93.46	78.01	15.45	0.43	16.47	0.46
27:49:50	93.05	77.86	15.18	0.43	16.06	0.45
28:49:50	92.82	77.63	15.19	0.43	15.84	0.44
29:49:50	93.37	78.31	15.05	0.42	16.38	0.46
30:49:50	92.61	78.06	14.55	0.41	15.63	0.44
31:49:50	92.19	77.77	14.42	0.40	15.20	0.43
32:49:50	92.73	78.39	14.34	0.40	15.75	0.44
33:49:50	92.08	78.09	14.00	0.39	15.10	0.42
34:49:50	91.45	78.02	13.42	0.38	14.46	0.41
35:49:50	91.29	78.07	13.22	0.37	14.30	0.40

0+78.9	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
36:49:50	91.40	77.94	13.45	0.38	14.41	0.40
37:49:50	90.91	78.03	12.88	0.36	13.92	0.39
38:49:50	91.04	77.83	13.21	0.37	14.05	0.39
39:49:50	89.91	77.71	12.21	0.34	12.93	0.36
40:49:50	89.64	77.44	12.19	0.34	12.65	0.35
41:49:50	89.80	78.07	11.72	0.33	12.81	0.36
42:49:50	89.41	77.65	11.76	0.33	12.43	0.35
43:49:50	89.67	78.33	11.33	0.32	12.68	0.36
44:49:50	89.26	78.07	11.18	0.31	12.27	0.34
45:49:50	88.77	77.93	10.84	0.30	11.78	0.33
46:49:50	88.69	77.63	11.06	0.31	11.70	0.33
47:49:50	88.26	77.57	10.70	0.30	11.28	0.32
49:49:50	88.36	78.19	10.17	0.29	11.37	0.32
51:49:50	87.75	77.54	10.21	0.29	10.76	0.30
53:49:50	87.60	77.41	10.19	0.29	10.62	0.30
55:49:50	86.70	77.17	9.54	0.27	9.72	0.27
57:49:50	86.84	77.75	9.08	0.25	9.85	0.28
59:49:50	85.57	77.03	8.53	0.24	8.58	0.24
61:49:50	86.10	77.47	8.63	0.24	9.11	0.26
63:49:50	84.92	76.57	8.35	0.23	7.93	0.22
65:49:50	85.02	77.05	7.98	0.22	8.04	0.23
67:49:50	84.51	77.15	7.36	0.21	7.52	0.21
69:49:50	84.15	77.48	6.68	0.19	7.17	0.20
71:49:50	84.33	78.18	6.15	0.17	7.34	0.21
73:49:50	83.86	77.62	6.25	0.18	6.88	0.19
75:49:50	83.04	76.80	6.24	0.17	6.06	0.17
77:49:50	82.91	76.72	6.19	0.17	5.92	0.17
79:49:50	83.29	77.53	5.77	0.16	6.31	0.18
81:49:50	82.28	77.18	5.10	0.14	5.29	0.15
83:49:50	82.06	76.98	5.08	0.14	5.08	0.14
85:49:50	81.87	77.15	4.72	0.13	4.88	0.14
87:49:50	81.36	76.38	4.99	0.14	4.38	0.12
89:49:50	82.16	77.67	4.48	0.13	5.17	0.14
91:49:50	81.27	77.48	3.79	0.11	4.29	0.12
93:49:50	80.79	77.62	3.17	0.09	3.80	0.11
95:49:50	81.28	77.90	3.37	0.09	4.29	0.12
97:49:50	81.01	77.86	3.15	0.09	4.03	0.11
99:49:50	81.26	77.57	3.70	0.10	4.28	0.12
101:49:50	81.57	77.78	3.79	0.11	4.58	0.13
103:49:50	80.35	77.16	3.20	0.09	3.37	0.09
105:49:50	80.30	77.34	2.97	0.08	3.32	0.09
107:49:50	79.94	77.68	2.26	0.06	2.96	0.08
109:49:50	80.53	78.45	2.08	0.06	3.54	0.10
111:49:50	80.22	77.99	2.23	0.06	3.24	0.09
113:49:50	79.60	77.43	2.17	0.06	2.61	0.07
115:49:50	79.53	77.07	2.46	0.07	2.55	0.07
117:49:50	79.15	77.22	1.93	0.05	2.16	0.06
119:49:50	78.57	76.74	1.82	0.05	1.58	0.04
121:49:50	79.15	77.03	2.12	0.06	2.16	0.06
123:49:50	78.13	76.33	1.80	0.05	1.14	0.03

0+78.9	**3.0 m**					**Test #2**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
125:49:50	78.66	76.19	2.46	0.07	1.67	0.05
127:49:50	77.97	76.54	1.43	0.04	0.99	0.03
129:49:50	78.54	77.38	1.16	0.03	1.56	0.04
131:49:50	77.82	77.82	0.00	0.00	0.83	0.02
133:49:50	78.29	78.09	0.21	0.01	1.31	0.04
135:49:50	78.43	79.11	-0.68	-0.02	1.44	0.04
137:49:50	77.95	79.37	-1.41	-0.04	0.97	0.03
139:49:50	77.95	79.37	-1.41	-0.04	0.97	0.03
141:49:50	77.20	78.80	-1.60	-0.04	0.21	0.01
143:49:50	77.50	78.90	-1.40	-0.04	0.52	0.01
145:49:50	76.19	77.38	-1.19	-0.03	-0.80	-0.02
147:49:50	76.05	76.76	-0.71	-0.02	-0.93	-0.03
149:49:50	76.59	76.68	-0.09	0.00	-0.39	-0.01
151:49:50	76.27	76.29	-0.02	0.00	-0.71	-0.02

Test Location (m)	**0+78.9**	**Effective Stress on date of test (kPa)**	**12.1**
Depth (m)	3.0	**Test # in well**	3
Well #	7	**Test Type**	Rate of Rise
Start Date of Test	4/11/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	141.7
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	46.4/40.3
k_{adj} (cm/s)	2.54E-07	**k_{static} (cm/s)**	3.25E-07



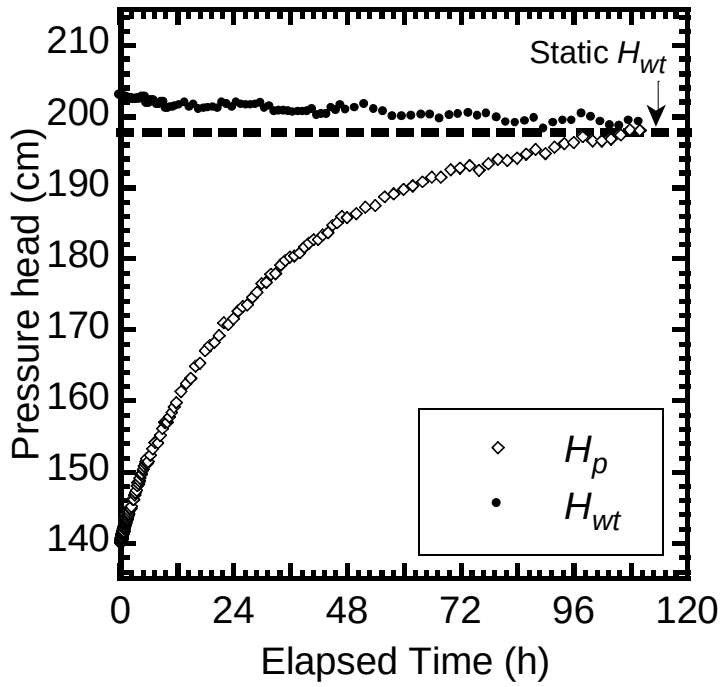


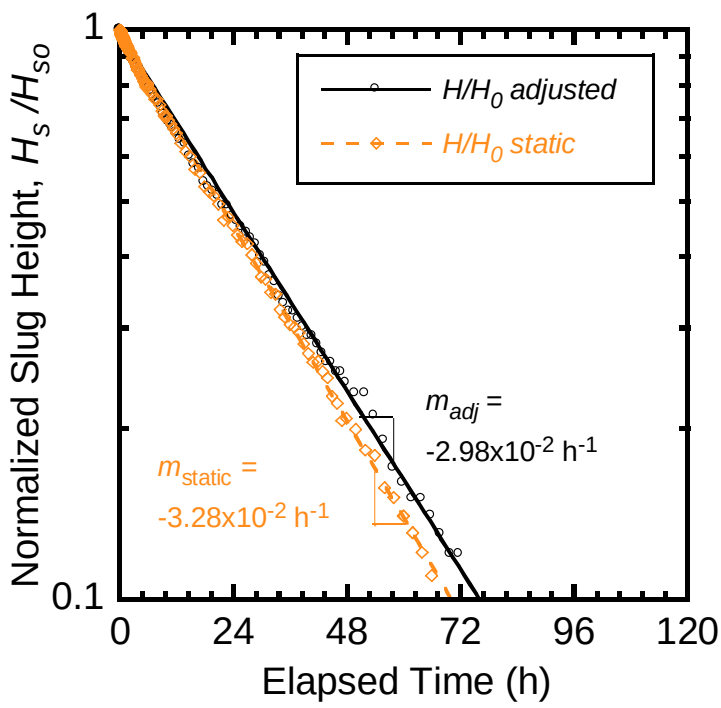
0+78.9	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	101.46	147.85	46.40	1.00	46.40	1.00
0:03:00	101.42	147.85	46.43	1.00	46.43	1.00
0:06:00	101.48	147.85	46.37	1.00	46.37	1.00
0:09:00	101.59	147.85	46.26	1.00	46.26	1.00
0:12:00	101.69	147.85	46.17	1.00	46.17	1.00
0:15:00	101.73	147.85	46.12	0.99	46.12	0.99
0:18:00	101.85	147.85	46.01	0.99	46.01	0.99
0:21:00	101.89	147.85	45.96	0.99	45.96	0.99
0:24:00	101.82	147.85	46.03	0.99	46.03	0.99
0:27:00	101.98	147.85	45.87	0.99	45.87	0.99
0:30:00	102.06	147.85	45.79	0.99	45.79	0.99
0:33:00	102.13	147.85	45.72	0.99	45.72	0.99
0:36:00	102.32	147.85	45.54	0.98	45.54	0.98
0:39:00	102.33	147.85	45.53	0.98	45.53	0.98
0:42:00	102.23	147.85	45.62	0.98	45.62	0.98
0:45:00	102.33	147.85	45.53	0.98	45.53	0.98
0:48:00	102.33	147.85	45.53	0.98	45.53	0.98
0:51:00	102.37	147.85	45.48	0.98	45.48	0.98
0:54:00	102.35	147.85	45.50	0.98	45.50	0.98
0:57:00	102.37	147.85	45.48	0.98	45.48	0.98
1:00:00	103.39	148.18	44.79	0.97	44.46	0.96
1:03:00	103.39	148.18	44.79	0.97	44.46	0.96
1:06:00	103.45	148.18	44.73	0.96	44.40	0.96
1:09:00	103.48	148.18	44.70	0.96	44.37	0.96
1:12:00	103.43	148.18	44.76	0.96	44.43	0.96
1:15:00	103.45	148.18	44.73	0.96	44.40	0.96
1:18:00	103.56	148.18	44.62	0.96	44.29	0.95
1:21:00	103.54	148.18	44.64	0.96	44.31	0.96
1:24:00	103.59	148.18	44.60	0.96	44.27	0.95
1:27:00	103.48	148.18	44.70	0.96	44.37	0.96
1:32:00	103.64	148.18	44.54	0.96	44.21	0.95
1:37:00	103.76	148.18	44.42	0.96	44.09	0.95
1:42:00	103.84	148.18	44.34	0.96	44.01	0.95
1:47:00	103.99	148.18	44.19	0.95	43.87	0.95
1:52:00	104.05	148.18	44.14	0.95	43.81	0.94
1:57:00	104.16	148.18	44.02	0.95	43.69	0.94
2:02:00	105.25	148.64	43.39	0.94	42.60	0.92
2:07:00	105.36	148.64	43.27	0.93	42.49	0.92
2:12:00	105.38	148.64	43.26	0.93	42.48	0.92
2:17:00	105.56	148.64	43.08	0.93	42.29	0.91
2:22:00	105.65	148.64	42.99	0.93	42.20	0.91
2:27:00	105.63	148.64	43.01	0.93	42.23	0.91
2:32:00	105.82	148.64	42.81	0.92	42.03	0.91
2:37:00	105.90	148.64	42.73	0.92	41.95	0.90
2:42:00	106.01	148.64	42.63	0.92	41.85	0.90
2:47:00	106.08	148.64	42.56	0.92	41.78	0.90
2:52:00	106.19	148.64	42.45	0.91	41.66	0.90
2:57:00	106.40	148.64	42.24	0.91	41.46	0.89
3:02:00	106.47	148.29	41.82	0.90	41.39	0.89
3:07:00	106.43	148.29	41.86	0.90	41.42	0.89

0+78.9	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:12:00	106.55	148.29	41.74	0.90	41.31	0.89
3:17:00	106.64	148.29	41.65	0.90	41.21	0.89
3:22:00	106.78	148.29	41.51	0.89	41.08	0.89
3:27:00	106.89	148.29	41.40	0.89	40.96	0.88
3:37:00	107.28	148.29	41.01	0.88	40.57	0.87
3:47:00	107.85	148.29	40.45	0.87	40.01	0.86
3:57:00	108.12	148.29	40.17	0.87	39.73	0.86
4:07:00	108.51	148.33	39.81	0.86	39.34	0.85
4:17:00	108.82	148.33	39.50	0.85	39.03	0.84
4:27:00	109.02	148.33	39.31	0.85	38.84	0.84
4:37:00	109.33	148.33	39.00	0.84	38.53	0.83
4:47:00	109.63	148.33	38.70	0.83	38.23	0.82
4:57:00	109.89	148.33	38.44	0.83	37.96	0.82
5:07:00	109.06	147.37	38.30	0.83	38.79	0.84
5:17:00	109.32	147.37	38.05	0.82	38.54	0.83
5:27:00	109.74	147.37	37.63	0.81	38.11	0.82
5:37:00	109.88	147.37	37.49	0.81	37.97	0.82
5:47:00	110.15	147.37	37.21	0.80	37.70	0.81
5:57:00	110.38	147.37	36.98	0.80	37.47	0.81
6:07:00	110.80	147.55	36.75	0.79	37.05	0.80
6:17:00	111.26	147.55	36.29	0.78	36.60	0.79
6:27:00	111.42	147.55	36.13	0.78	36.43	0.79
6:37:00	111.69	147.55	35.85	0.77	36.16	0.78
6:47:00	111.98	147.55	35.57	0.77	35.87	0.77
6:57:00	112.18	147.55	35.37	0.76	35.68	0.77
7:07:00	111.35	146.74	35.39	0.76	36.50	0.79
7:17:00	111.74	146.74	35.00	0.75	36.11	0.78
7:27:00	111.83	146.74	34.91	0.75	36.02	0.78
7:57:00	111.97	146.74	34.77	0.75	35.88	0.77
8:27:00	112.28	146.58	34.30	0.74	35.57	0.77
8:57:00	112.92	146.58	33.65	0.73	34.93	0.75
9:27:00	112.96	146.36	33.40	0.72	34.89	0.75
9:57:00	113.32	146.36	33.04	0.71	34.54	0.74
10:27:00	114.00	146.12	32.12	0.69	33.85	0.73
10:57:00	114.42	146.12	31.70	0.68	33.44	0.72
11:27:00	115.18	146.83	31.64	0.68	32.67	0.70
11:57:00	115.10	146.83	31.72	0.68	32.75	0.71
12:27:00	115.67	146.45	30.78	0.66	32.19	0.69
12:57:00	116.12	146.45	30.34	0.65	31.74	0.68
13:27:00	117.67	147.33	29.66	0.64	30.18	0.65
13:57:00	118.29	147.33	29.04	0.63	29.56	0.64
14:27:00	117.57	146.24	28.67	0.62	30.28	0.65
14:57:00	117.98	146.24	28.27	0.61	29.88	0.64
15:27:00	118.50	146.15	27.64	0.60	29.35	0.63
15:57:00	118.99	146.15	27.16	0.59	28.87	0.62
16:27:00	119.53	146.20	26.67	0.57	28.33	0.61
16:57:00	119.97	146.20	26.23	0.57	27.88	0.60
17:27:00	120.42	146.22	25.80	0.56	27.43	0.59
17:57:00	120.42	146.22	25.80	0.56	27.43	0.59
18:27:00	120.91	146.10	25.19	0.54	29.74	0.58

0+78.9	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
18:57:00	121.45	146.10	24.65	0.53	26.40	0.57
19:27:00	122.13	146.17	24.04	0.52	25.72	0.55
20:27:00	121.35	145.90	24.55	0.53	26.50	0.57
21:27:00	121.86	146.06	24.19	0.52	25.99	0.56
22:27:00	121.22	145.96	24.74	0.53	26.63	0.57
23:27:00	122.96	147.74	24.78	0.53	24.90	0.54
24:27:00	123.42	148.43	25.00	0.54	24.43	0.53
25:27:00	124.36	149.18	24.82	0.54	23.49	0.51
26:27:00	126.09	150.15	24.06	0.52	21.76	0.47
27:27:00	127.73	150.55	22.82	0.49	20.13	0.43
28:27:00	128.62	150.39	21.76	0.47	19.23	0.41
29:27:00	130.12	150.40	20.28	0.44	17.74	0.38
30:27:00	129.95	149.50	19.55	0.42	17.91	0.39
31:27:00	129.61	148.37	18.76	0.40	18.25	0.39
33:27:00	130.83	148.21	17.38	0.37	17.02	0.37
35:27:00	131.73	147.38	15.65	0.34	16.12	0.35
37:27:00	131.95	146.54	14.59	0.31	15.90	0.34
39:27:00	133.55	146.37	12.82	0.28	14.30	0.31
41:27:00	134.39	146.03	11.64	0.25	13.46	0.29
43:27:00	133.65	144.90	11.25	0.24	14.21	0.31
45:27:00	134.98	146.20	11.22	0.24	12.87	0.28
47:27:00	135.28	146.12	10.84	0.23	12.57	0.27
49:27:00	135.69	146.13	10.44	0.23	12.16	0.26
51:27:00	137.00	146.42	9.42	0.20	10.86	0.23
53:27:00	137.98	145.80	7.82	0.17	9.88	0.21
55:27:00	137.69	145.26	7.57	0.16	10.16	0.22
57:27:00	138.35	145.18	6.83	0.15	9.51	0.20
59:27:00	138.57	144.93	6.36	0.14	9.29	0.20
61:27:00	139.24	144.53	5.29	0.11	8.61	0.19
63:27:00	139.74	144.18	4.44	0.10	8.11	0.17
65:27:00	139.86	143.86	4.00	0.09	7.99	0.17
67:27:00	139.86	143.84	3.99	0.09	8.00	0.17
69:27:00	138.85	143.28	4.44	0.10	9.01	0.19
71:27:00	139.07	143.95	4.87	0.11	8.78	0.19
73:27:00	140.51	145.01	4.49	0.10	7.34	0.16
75:27:00	141.54	144.12	2.58	0.06	6.32	0.14
77:27:00	142.09	143.43	1.33	0.03	5.76	0.12
79:27:00	141.52	141.86	0.34	0.01	6.34	0.14
81:27:00	141.08	141.56	0.47	0.01	6.77	0.15
83:27:00	140.87	140.94	0.08	0.00	6.99	0.15
85:27:00	141.74	141.36	-0.38	-0.01	6.12	0.13
87:27:00	140.86	140.21	-0.65	-0.01	6.99	0.15
89:27:00	140.98	140.13	-0.85	-0.02	6.88	0.15
91:27:00	140.57	139.65	-0.91	-0.02	7.29	0.16
93:27:00	139.89	139.46	-0.43	-0.01	7.97	0.17
95:27:00	139.72	140.01	0.28	0.01	8.13	0.18
97:27:00	139.62	140.28	0.66	0.01	8.24	0.18
99:27:00	140.26	140.89	0.63	0.01	7.59	0.16
101:27:00	140.72	141.22	0.51	0.01	7.14	0.15

Test Location (m)	**0+79.3**	**Effective Stress on date of test (kPa)**	**9.9**
Depth (m)	4.0	**Test # in well**	1
Well #	8	**Test Type**	Rate of Rise
Start Date of Test	9/20/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	197.8
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	62.8/57.8
k_{adj} (cm/s)	2.54E-07	**k_{static} (cm/s)**	2.69E-07





0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	140.05	202.92	62.87	1.00	62.87	1.00
0:00:10	140.09	202.92	62.83	1.00	62.83	1.00
0:00:20	140.14	202.92	62.78	1.00	62.78	1.00
0:00:30	140.09	202.92	62.83	1.00	62.83	1.00
0:00:40	140.09	202.92	62.83	1.00	62.83	1.00
0:00:50	140.14	202.92	62.78	1.00	62.78	1.00
0:01:00	140.09	202.92	62.83	1.00	62.83	1.00
0:01:10	140.11	202.92	62.80	1.00	62.80	1.00
0:01:20	140.11	202.92	62.80	1.00	62.80	1.00
0:01:30	140.11	202.92	62.80	1.00	62.80	1.00
0:01:40	140.11	202.92	62.80	1.00	62.80	1.00
0:01:50	140.11	202.92	62.80	1.00	62.80	1.00
0:02:00	140.14	202.92	62.78	1.00	62.78	1.00
0:02:10	140.14	202.92	62.78	1.00	62.78	1.00
0:02:20	140.15	202.92	62.76	1.00	62.76	1.00
0:02:30	140.21	202.92	62.71	1.00	62.71	1.00
0:02:40	140.15	202.92	62.76	1.00	62.76	1.00
0:02:50	140.18	202.92	62.74	1.00	62.74	1.00
0:03:00	140.14	202.92	62.78	1.00	62.78	1.00
0:03:10	140.18	202.92	62.74	1.00	62.74	1.00
0:03:20	140.18	202.92	62.74	1.00	62.74	1.00
0:03:30	140.15	202.92	62.76	1.00	62.76	1.00
0:03:40	140.18	202.92	62.74	1.00	62.74	1.00
0:03:50	140.18	202.92	62.74	1.00	62.74	1.00
0:04:00	140.21	202.92	62.71	1.00	62.71	1.00
0:04:10	140.27	202.92	62.64	1.00	62.64	1.00
0:04:20	140.25	202.92	62.67	1.00	62.67	1.00
0:04:30	140.25	202.92	62.67	1.00	62.67	1.00
0:04:40	140.40	202.92	62.51	0.99	62.51	0.99
0:04:50	140.29	202.92	62.63	1.00	62.63	1.00
0:05:00	140.36	202.92	62.55	0.99	62.55	0.99
0:05:10	140.25	202.92	62.67	1.00	62.67	1.00
0:05:20	140.27	202.92	62.64	1.00	62.64	1.00
0:05:30	140.25	202.92	62.67	1.00	62.67	1.00
0:05:40	140.29	202.92	62.63	1.00	62.63	1.00
0:05:50	140.34	202.92	62.58	1.00	62.58	1.00
0:06:00	140.29	202.92	62.63	1.00	62.63	1.00
0:06:10	140.31	202.92	62.60	1.00	62.60	1.00
0:06:20	140.29	202.92	62.63	1.00	62.63	1.00
0:06:30	140.36	202.92	62.55	0.99	62.55	0.99
0:06:40	140.34	202.92	62.58	1.00	62.58	1.00
0:06:50	140.34	202.92	62.58	1.00	62.58	1.00
0:07:00	140.36	202.92	62.55	0.99	62.55	0.99
0:07:10	140.40	202.92	62.51	0.99	62.51	0.99
0:07:20	140.36	202.92	62.55	0.99	62.55	0.99
0:07:30	140.36	202.92	62.55	0.99	62.55	0.99
0:07:40	140.36	202.92	62.55	0.99	62.55	0.99
0:07:50	140.38	202.92	62.54	0.99	62.54	0.99
0:08:00	140.43	202.92	62.49	0.99	62.49	0.99
0:08:10	140.44	202.92	62.47	0.99	62.47	0.99

0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	140.47	202.92	62.45	0.99	62.45	0.99
0:08:30	140.44	202.92	62.47	0.99	62.47	0.99
0:08:40	140.50	202.92	62.42	0.99	62.42	0.99
0:08:50	140.44	202.92	62.47	0.99	62.47	0.99
0:09:00	140.50	202.92	62.42	0.99	62.42	0.99
0:09:10	140.27	202.92	62.64	1.00	62.64	1.00
0:09:20	140.80	202.92	62.12	0.99	62.12	0.99
0:09:30	140.38	202.92	62.54	0.99	62.54	0.99
0:09:40	140.40	202.92	62.51	0.99	62.51	0.99
0:09:50	140.40	202.92	62.51	0.99	62.51	0.99
0:10:00	140.74	202.92	62.18	0.99	62.18	0.99
0:10:10	140.66	202.92	62.26	0.99	62.26	0.99
0:10:20	140.63	202.92	62.29	0.99	62.29	0.99
0:10:30	140.44	202.92	62.47	0.99	62.47	0.99
0:10:40	140.29	202.92	62.63	1.00	62.63	1.00
0:10:50	140.58	202.92	62.34	0.99	62.34	0.99
0:11:00	140.60	202.92	62.31	0.99	62.31	0.99
0:11:10	140.63	202.92	62.29	0.99	62.29	0.99
0:11:20	140.70	202.92	62.22	0.99	62.22	0.99
0:11:30	140.44	202.92	62.47	0.99	62.47	0.99
0:11:40	140.80	202.92	62.12	0.99	62.12	0.99
0:11:50	140.95	202.92	61.97	0.99	61.97	0.99
0:12:00	140.51	202.92	62.41	0.99	62.41	0.99
0:12:10	140.51	202.92	62.41	0.99	62.41	0.99
0:12:20	140.76	202.92	62.16	0.99	62.16	0.99
0:12:30	140.70	202.92	62.22	0.99	62.22	0.99
0:12:40	140.85	202.92	62.06	0.99	62.06	0.99
0:12:50	140.83	202.92	62.09	0.99	62.09	0.99
0:13:00	140.72	202.92	62.19	0.99	62.19	0.99
0:13:10	140.60	202.92	62.31	0.99	62.31	0.99
0:13:20	140.79	202.92	62.13	0.99	62.13	0.99
0:13:30	140.72	202.92	62.19	0.99	62.19	0.99
0:13:40	140.74	202.92	62.18	0.99	62.18	0.99
0:13:50	140.66	202.92	62.26	0.99	62.26	0.99
0:14:00	140.76	202.92	62.16	0.99	62.16	0.99
0:14:10	140.80	202.92	62.12	0.99	62.12	0.99
0:14:20	140.74	202.92	62.18	0.99	62.18	0.99
0:14:30	140.95	202.92	61.97	0.99	61.97	0.99
0:14:40	140.67	202.92	62.25	0.99	62.25	0.99
0:14:50	140.72	202.92	62.19	0.99	62.19	0.99
0:15:00	141.24	202.92	61.68	0.98	61.68	0.98
0:15:10	140.76	202.92	62.16	0.99	62.16	0.99
0:15:20	140.54	202.92	62.38	0.99	62.38	0.99
0:15:30	140.66	202.92	62.26	0.99	62.26	0.99
0:15:40	140.88	202.92	62.04	0.99	62.04	0.99
0:15:50	140.70	202.92	62.22	0.99	62.22	0.99
0:16:00	140.92	202.92	62.00	0.99	62.00	0.99
0:16:10	140.89	202.92	62.02	0.99	62.02	0.99
0:16:20	141.14	202.92	61.77	0.98	61.77	0.98
0:16:30	140.83	202.92	62.09	0.99	62.09	0.99

0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	141.09	202.92	61.82	0.98	61.82	0.98
0:16:50	140.60	202.92	62.31	0.99	62.31	0.99
0:17:00	140.95	202.92	61.97	0.99	61.97	0.99
0:17:10	140.83	202.92	62.09	0.99	62.09	0.99
0:17:20	140.76	202.92	62.16	0.99	62.16	0.99
0:17:30	141.24	202.92	61.68	0.98	61.68	0.98
0:17:40	140.88	202.92	62.04	0.99	62.04	0.99
0:17:50	140.96	202.92	61.96	0.99	61.96	0.99
0:18:00	140.85	202.92	62.06	0.99	62.06	0.99
0:18:10	140.70	202.92	62.22	0.99	62.22	0.99
0:18:20	140.58	202.92	62.34	0.99	62.34	0.99
0:18:30	141.17	202.92	61.74	0.98	61.74	0.98
0:18:40	140.66	202.92	62.26	0.99	62.26	0.99
0:18:50	141.03	202.92	61.89	0.98	61.89	0.98
0:19:00	140.89	202.92	62.02	0.99	62.02	0.99
0:19:10	140.72	202.92	62.19	0.99	62.19	0.99
0:19:20	140.67	202.92	62.25	0.99	62.25	0.99
0:19:30	141.18	202.92	61.73	0.98	61.73	0.98
0:19:40	141.14	202.92	61.77	0.98	61.77	0.98
0:19:50	140.76	202.92	62.16	0.99	62.16	0.99
0:20:00	140.95	202.92	61.97	0.99	61.97	0.99
0:20:10	141.28	202.92	61.64	0.98	61.64	0.98
0:20:20	141.14	202.92	61.77	0.98	61.77	0.98
0:20:30	140.92	202.92	62.00	0.99	62.00	0.99
0:21:00	140.70	202.92	62.22	0.99	62.22	0.99
0:21:30	141.03	202.92	61.89	0.98	61.89	0.98
0:22:00	141.18	202.92	61.73	0.98	61.73	0.98
0:22:30	141.21	202.92	61.71	0.98	61.71	0.98
0:23:00	140.83	202.92	62.09	0.99	62.09	0.99
0:23:30	141.46	202.92	61.45	0.98	61.45	0.98
0:24:00	141.21	202.92	61.71	0.98	61.71	0.98
0:24:30	141.25	202.92	61.67	0.98	61.67	0.98
0:25:00	141.48	202.92	61.44	0.98	61.44	0.98
0:25:30	141.41	202.92	61.51	0.98	61.51	0.98
0:26:00	141.44	202.92	61.48	0.98	61.48	0.98
0:26:30	141.14	202.92	61.77	0.98	61.77	0.98
0:27:00	141.69	202.92	61.23	0.97	61.23	0.97
0:27:30	141.73	202.92	61.19	0.97	61.19	0.97
0:28:00	141.32	202.92	61.60	0.98	61.60	0.98
0:28:30	141.46	202.92	61.45	0.98	61.45	0.98
0:29:00	141.21	202.92	61.71	0.98	61.71	0.98
0:29:30	141.32	202.92	61.60	0.98	61.60	0.98
0:30:00	141.34	202.92	61.57	0.98	61.57	0.98
0:30:30	141.62	202.92	61.29	0.97	61.29	0.97
0:31:00	141.32	202.92	61.60	0.98	61.60	0.98
0:31:30	141.86	202.92	61.06	0.97	61.06	0.97
0:32:00	141.95	202.92	60.96	0.97	60.96	0.97
0:32:30	141.48	202.92	61.44	0.98	61.44	0.98
0:33:00	141.46	202.92	61.45	0.98	61.45	0.98
0:33:30	141.95	202.92	60.96	0.97	60.96	0.97

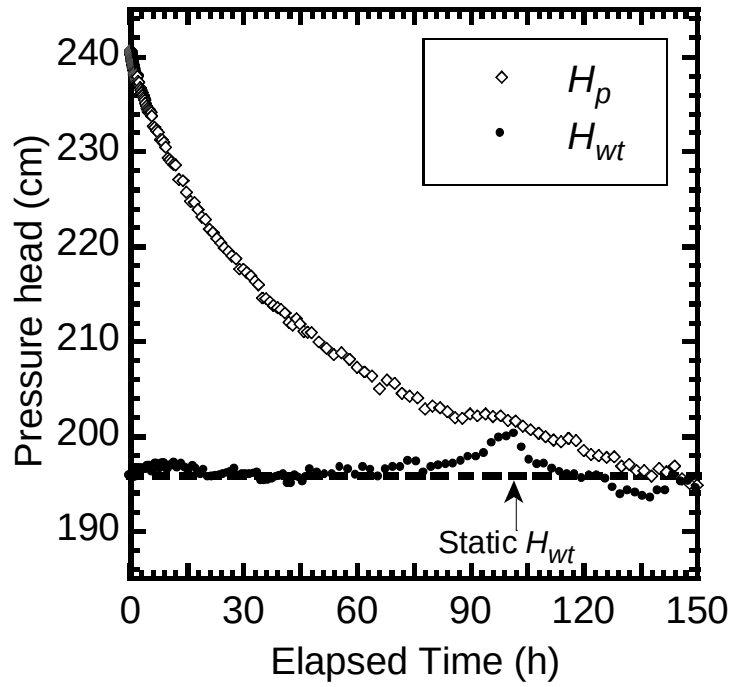
0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:34:00	141.37	202.92	61.55	0.98	61.55	0.98
0:34:30	141.57	202.92	61.35	0.98	61.35	0.98
0:35:00	142.05	202.62	60.57	0.96	60.87	0.97
0:35:30	142.08	202.62	60.53	0.96	60.83	0.97
0:36:00	142.06	202.62	60.56	0.96	60.86	0.97
0:36:30	141.66	202.62	60.96	0.97	61.25	0.97
0:37:00	141.53	202.62	61.09	0.97	61.39	0.98
0:37:30	141.69	202.62	60.93	0.97	61.23	0.97
0:38:00	141.41	202.62	61.21	0.97	61.51	0.98
0:38:30	142.06	202.62	60.56	0.96	60.86	0.97
0:39:00	141.92	202.62	60.69	0.97	60.99	0.97
0:39:30	141.63	202.62	60.98	0.97	61.28	0.97
0:40:00	142.15	202.62	60.47	0.96	60.77	0.97
0:40:30	141.79	202.62	60.82	0.97	61.12	0.97
0:41:00	141.98	202.62	60.64	0.96	60.94	0.97
0:41:30	141.57	202.62	61.05	0.97	61.35	0.98
0:42:00	141.95	202.62	60.67	0.96	60.96	0.97
0:42:30	141.66	202.62	60.96	0.97	61.25	0.97
0:43:00	142.34	202.62	60.28	0.96	60.58	0.96
0:43:30	141.90	202.62	60.72	0.97	61.02	0.97
0:44:00	142.28	202.62	60.33	0.96	60.63	0.96
0:44:30	141.92	202.62	60.69	0.97	60.99	0.97
0:45:00	141.70	202.62	60.92	0.97	61.22	0.97
0:45:30	142.12	202.62	60.49	0.96	60.79	0.97
0:46:00	142.38	202.62	60.24	0.96	60.54	0.96
0:46:30	142.44	202.62	60.18	0.96	60.47	0.96
0:47:00	142.35	202.62	60.27	0.96	60.57	0.96
0:47:30	142.12	202.62	60.49	0.96	60.79	0.97
0:48:00	142.40	202.62	60.22	0.96	60.51	0.96
0:48:30	142.24	202.62	60.37	0.96	60.67	0.97
0:49:00	142.19	202.62	60.43	0.96	60.73	0.97
0:49:30	142.06	202.62	60.56	0.96	60.86	0.97
0:50:00	142.31	202.62	60.31	0.96	60.61	0.96
0:50:30	141.98	202.62	60.64	0.96	60.94	0.97
0:51:30	142.40	202.62	60.22	0.96	60.51	0.96
0:52:30	142.27	202.62	60.35	0.96	60.65	0.96
0:53:30	142.34	202.62	60.28	0.96	60.58	0.96
0:54:30	142.28	202.62	60.33	0.96	60.63	0.96
0:55:30	142.49	202.62	60.12	0.96	60.42	0.96
0:56:30	142.92	202.62	59.70	0.95	60.00	0.95
0:57:30	142.64	202.62	59.98	0.95	60.28	0.96
0:58:30	142.60	202.62	60.02	0.95	60.32	0.96
0:59:30	142.72	202.62	59.90	0.95	60.20	0.96
1:00:30	142.57	202.62	60.04	0.96	60.34	0.96
1:01:30	142.76	202.62	59.86	0.95	60.16	0.96
1:02:30	142.72	202.62	59.90	0.95	60.20	0.96
1:03:30	143.12	202.62	59.50	0.95	59.80	0.95
1:04:30	142.63	202.62	59.99	0.95	60.29	0.96
1:05:30	143.25	202.62	59.37	0.94	59.67	0.95
1:06:30	142.76	202.62	59.86	0.95	60.16	0.96

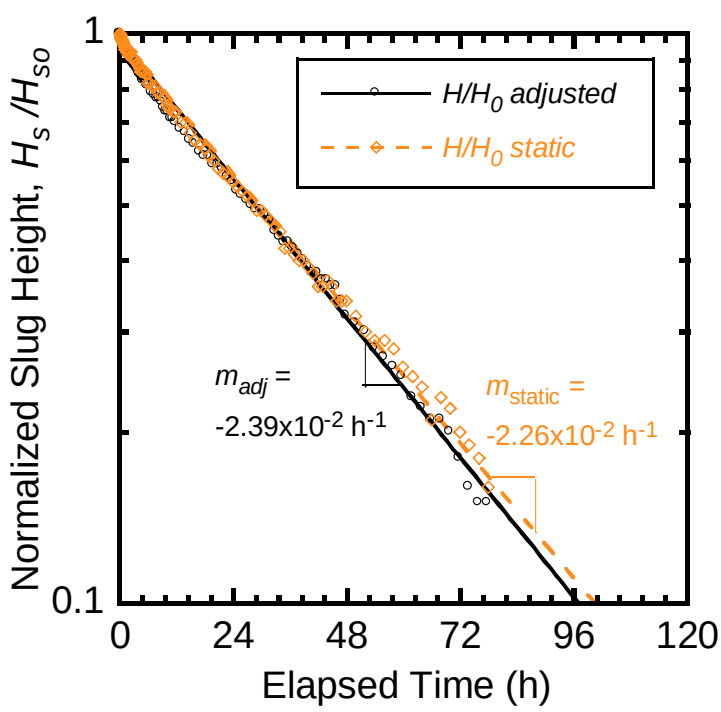
0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:07:30	143.30	202.62	59.32	0.94	59.62	0.95
1:08:30	143.00	202.62	59.62	0.95	59.92	0.95
1:09:30	142.80	202.62	59.82	0.95	60.12	0.96
1:10:30	143.37	202.62	59.25	0.94	59.55	0.95
1:11:30	143.02	202.62	59.59	0.95	59.89	0.95
1:12:30	143.21	202.62	59.41	0.94	59.71	0.95
1:13:30	143.50	202.62	59.12	0.94	59.42	0.95
1:14:30	143.25	202.62	59.37	0.94	59.67	0.95
1:15:30	143.37	202.62	59.25	0.94	59.55	0.95
1:16:30	143.82	202.62	58.80	0.94	59.10	0.94
1:17:30	143.22	202.62	59.40	0.94	59.69	0.95
1:18:30	143.31	202.62	59.30	0.94	59.60	0.95
1:19:30	143.43	202.62	59.18	0.94	59.48	0.95
1:20:30	143.51	202.62	59.10	0.94	59.40	0.94
1:21:30	143.88	202.62	58.73	0.93	59.03	0.94
1:22:30	143.27	202.62	59.34	0.94	59.64	0.95
1:23:30	143.41	202.62	59.21	0.94	59.51	0.95
1:24:30	143.63	202.62	58.99	0.94	59.29	0.94
1:25:30	143.34	202.62	59.28	0.94	59.58	0.95
1:26:30	143.70	202.62	58.92	0.94	59.22	0.94
1:27:30	143.66	202.62	58.96	0.94	59.26	0.94
1:28:30	143.90	202.62	58.72	0.93	59.02	0.94
1:29:30	143.95	202.62	58.67	0.93	58.97	0.94
1:30:30	143.79	202.62	58.83	0.94	59.13	0.94
1:31:30	143.82	202.62	58.80	0.94	59.10	0.94
1:32:30	143.88	202.62	58.73	0.93	59.03	0.94
1:33:30	144.01	202.62	58.60	0.93	58.90	0.94
1:34:30	144.12	202.62	58.50	0.93	58.80	0.94
1:35:30	143.92	202.38	58.46	0.93	58.99	0.94
1:36:30	143.70	202.38	58.68	0.93	59.22	0.94
1:37:30	143.96	202.38	58.42	0.93	58.95	0.94
1:38:30	143.99	202.38	58.39	0.93	58.93	0.94
1:39:30	144.28	202.38	58.10	0.92	58.64	0.93
1:40:30	144.12	202.38	58.26	0.93	58.80	0.94
1:41:30	144.12	202.38	58.26	0.93	58.80	0.94
1:42:30	144.35	202.38	58.03	0.92	58.57	0.93
1:43:30	144.37	202.38	58.01	0.92	58.54	0.93
1:44:30	144.60	202.38	57.78	0.92	58.32	0.93
1:45:30	144.21	202.38	58.17	0.93	58.70	0.93
1:46:30	144.12	202.38	58.26	0.93	58.80	0.94
1:47:30	144.69	202.38	57.69	0.92	58.23	0.93
1:48:30	144.62	202.38	57.76	0.92	58.29	0.93
1:49:30	144.50	202.38	57.87	0.92	58.41	0.93
1:50:30	144.89	202.38	57.49	0.91	58.03	0.92
2:00:30	144.98	202.38	57.40	0.91	57.94	0.92
2:10:30	144.86	202.38	57.52	0.91	58.05	0.92
2:20:30	145.18	202.38	57.20	0.91	57.74	0.92
2:30:30	146.25	202.38	56.13	0.89	56.67	0.90
2:40:30	146.25	202.28	56.03	0.89	56.67	0.90
2:50:30	146.12	202.28	56.17	0.89	56.80	0.90

0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:00:30	146.81	202.28	55.48	0.88	56.11	0.89
3:10:30	147.08	202.28	55.20	0.88	55.83	0.89
3:20:30	147.41	202.28	54.87	0.87	55.50	0.88
3:30:30	148.05	202.28	54.24	0.86	54.87	0.87
3:40:30	148.58	202.34	53.77	0.86	54.34	0.86
3:50:30	148.34	202.34	54.00	0.86	54.58	0.87
4:00:30	148.76	202.34	53.58	0.85	54.15	0.86
4:10:30	149.16	202.34	53.18	0.85	53.76	0.86
4:20:30	149.61	202.34	52.73	0.84	53.31	0.85
4:30:30	149.77	202.34	52.58	0.84	53.15	0.85
4:40:30	150.24	202.57	52.33	0.83	52.67	0.84
4:50:30	150.44	202.57	52.13	0.83	52.47	0.83
5:00:30	150.84	202.57	51.73	0.82	52.08	0.83
5:10:30	151.13	202.57	51.44	0.82	51.79	0.82
5:20:30	151.49	202.57	51.08	0.81	51.43	0.82
5:30:30	151.92	202.57	50.65	0.81	50.99	0.81
5:40:30	151.24	201.73	50.49	0.80	51.68	0.82
5:50:30	151.50	201.73	50.22	0.80	51.42	0.82
6:20:30	152.37	201.73	49.35	0.79	50.54	0.80
6:50:30	153.25	202.08	48.84	0.78	49.67	0.79
7:20:30	154.16	202.08	47.92	0.76	48.76	0.78
7:50:30	154.13	201.45	47.32	0.75	48.79	0.78
8:20:30	155.18	201.45	46.27	0.74	47.74	0.76
8:50:30	156.14	201.81	45.67	0.73	46.78	0.74
9:20:30	157.01	201.81	44.80	0.71	45.90	0.73
9:50:30	157.05	200.99	43.94	0.70	45.86	0.73
10:20:30	157.78	200.99	43.21	0.69	45.14	0.72
10:50:30	158.39	201.11	42.72	0.68	44.53	0.71
11:20:30	159.13	201.11	41.98	0.67	43.79	0.70
11:50:30	159.78	201.28	41.50	0.66	43.14	0.69
12:50:30	161.31	201.39	40.08	0.64	41.60	0.66
13:50:30	162.48	201.77	39.30	0.63	40.44	0.64
14:50:30	163.20	201.15	37.95	0.60	39.72	0.63
15:50:30	164.92	201.48	36.55	0.58	38.00	0.60
16:50:30	165.33	200.89	35.56	0.57	37.59	0.60
17:50:30	167.14	200.98	33.84	0.54	35.78	0.57
18:50:30	167.79	201.02	33.24	0.53	35.13	0.56
19:50:30	168.25	201.12	32.87	0.52	34.66	0.55
20:50:30	169.23	200.99	31.76	0.51	33.69	0.54
21:50:30	170.99	201.74	30.74	0.49	31.92	0.51
22:50:30	170.73	201.50	30.77	0.49	32.19	0.51
23:50:30	171.57	201.12	29.55	0.47	31.34	0.50
24:50:30	172.63	201.74	29.11	0.46	30.28	0.48
25:50:30	173.28	201.45	28.17	0.45	29.64	0.47
26:50:30	173.51	201.39	27.89	0.44	29.41	0.47
27:50:30	174.55	201.34	26.79	0.43	28.37	0.45
28:50:30	175.33	201.47	26.14	0.42	27.59	0.44
29:50:30	176.49	201.71	25.22	0.40	26.42	0.42
30:50:30	176.70	200.97	24.27	0.39	26.21	0.42
31:50:30	177.82	201.26	23.45	0.37	25.10	0.40

0+79.3	4.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
32:50:30	177.93	200.52	22.58	0.36	24.98	0.40
33:50:30	179.14	200.64	21.50	0.34	23.78	0.38
34:50:30	179.75	200.63	20.89	0.33	23.17	0.37
35:50:30	180.24	200.54	20.30	0.32	22.68	0.36
36:50:30	180.45	200.40	19.95	0.32	22.47	0.36
37:50:30	180.83	200.46	19.63	0.31	22.09	0.35
38:50:30	181.61	200.50	18.89	0.30	21.30	0.34
39:50:30	182.22	200.59	18.37	0.29	20.70	0.33
40:50:30	182.72	200.87	18.15	0.29	20.19	0.32
41:50:30	182.67	200.02	17.36	0.28	20.25	0.32
42:50:30	183.32	200.14	16.82	0.27	19.60	0.31
43:50:30	183.67	200.12	16.44	0.26	19.24	0.31
44:50:30	184.69	201.01	16.32	0.26	18.22	0.29
45:50:30	185.05	200.75	15.70	0.25	17.87	0.28
46:50:30	185.91	201.35	15.43	0.25	17.00	0.27
47:50:30	185.79	200.84	15.05	0.24	17.12	0.27
49:50:30	186.35	201.03	14.68	0.23	16.57	0.26
51:50:30	187.26	201.55	14.29	0.23	15.65	0.25
53:50:30	187.49	200.91	13.42	0.21	15.43	0.25
55:50:30	188.74	200.53	11.78	0.19	14.17	0.23
57:50:30	189.07	199.82	10.75	0.17	13.85	0.22
59:50:30	189.72	199.84	10.13	0.16	13.20	0.21
61:50:30	190.27	199.90	9.63	0.15	12.64	0.20
63:50:30	190.80	200.07	9.26	0.15	12.11	0.19
65:50:30	191.44	200.07	8.63	0.14	11.48	0.18
67:50:30	191.49	199.50	8.01	0.13	11.43	0.18
69:50:30	192.52	199.98	7.46	0.12	10.39	0.17
71:50:30	192.75	200.12	7.37	0.12	10.17	0.16
73:50:30	193.05	200.29	7.24	0.12	9.86	0.16
75:50:30	192.43	199.91	7.48	0.12	10.48	0.17
77:50:30	193.34	200.25	6.91	0.11	9.57	0.15
79:50:30	193.99	199.65	5.65	0.09	8.92	0.14
81:50:30	193.84	198.99	5.15	0.08	9.07	0.14
83:50:30	194.18	198.96	4.79	0.08	8.74	0.14
85:50:30	194.73	199.15	4.41	0.07	8.18	0.13
87:50:30	195.39	199.59	4.20	0.07	7.52	0.12
89:50:30	194.76	198.11	3.35	0.05	8.16	0.13
91:50:30	195.68	198.90	3.22	0.05	7.23	0.12
93:50:30	196.17	199.28	3.11	0.05	6.74	0.11
95:50:30	196.33	199.24	2.91	0.05	6.58	0.10
97:50:30	197.10	200.25	3.14	0.05	5.81	0.09
99:50:30	196.61	199.76	3.15	0.05	6.30	0.10
101:50:30	196.59	199.10	2.51	0.04	6.33	0.10
103:50:30	196.84	198.60	1.77	0.03	6.08	0.10
105:50:30	197.35	198.50	1.15	0.02	5.56	0.09
107:50:30	198.15	199.22	1.07	0.02	4.77	0.08
109:50:30	198.01	199.12	1.10	0.02	4.90	0.08

Test Location (m)	**0+79.3**	**Effective Stress on date of test (kPa)**	**9.9**
Depth (m)	4.0	**Test # in well**	2
Well #	8	**Test Type**	Rate of Fall
Start Date of Test	10/11/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	195.8
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	44.9
k_{adj} (cm/s)	1.96E-07	**k_{static} (cm/s)**	1.85E-07





0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	240.69	195.78	44.91	1.00	62.87	1.00
0:00:10	240.73	195.78	44.95	1.00	62.83	1.00
0:00:20	240.64	195.78	44.86	1.00	62.78	1.00
0:00:30	240.69	195.78	44.91	1.00	62.83	1.00
0:00:40	240.69	195.78	44.91	1.00	62.83	1.00
0:00:50	240.67	195.78	44.89	1.00	62.78	1.00
0:01:00	240.67	195.78	44.89	1.00	62.83	1.00
0:01:10	240.69	195.78	44.91	1.00	62.80	1.00
0:01:20	240.64	195.78	44.86	1.00	62.80	1.00
0:01:30	240.64	195.78	44.86	1.00	62.80	1.00
0:01:40	240.67	195.78	44.89	1.00	62.80	1.00
0:01:50	240.67	195.78	44.89	1.00	62.80	1.00
0:02:00	240.64	195.78	44.86	1.00	62.78	1.00
0:02:10	240.63	195.78	44.85	1.00	62.78	1.00
0:02:20	240.63	195.78	44.85	1.00	62.76	1.00
0:02:30	240.64	195.78	44.86	1.00	62.71	1.00
0:02:40	240.64	195.78	44.86	1.00	62.76	1.00
0:02:50	240.63	195.78	44.85	1.00	62.74	1.00
0:03:00	240.64	195.78	44.86	1.00	62.78	1.00
0:03:10	240.60	195.78	44.82	1.00	62.74	1.00
0:03:20	240.63	195.78	44.85	1.00	62.74	1.00
0:03:30	240.60	195.78	44.82	1.00	62.76	1.00
0:03:40	240.63	195.78	44.85	1.00	62.74	1.00
0:03:50	240.57	195.78	44.79	1.00	62.74	1.00
0:04:00	240.60	195.78	44.82	1.00	62.71	1.00
0:04:10	240.57	195.78	44.79	1.00	62.64	1.00
0:04:20	240.57	195.78	44.79	1.00	62.67	1.00
0:04:30	240.53	195.78	44.76	1.00	62.67	1.00
0:04:40	240.56	195.78	44.78	1.00	62.51	0.99
0:04:50	240.57	195.78	44.79	1.00	62.63	1.00
0:05:00	240.53	195.78	44.76	1.00	62.55	0.99
0:05:10	240.56	195.78	44.78	1.00	62.67	1.00
0:05:20	240.56	195.78	44.78	1.00	62.64	1.00
0:05:30	240.53	195.78	44.76	1.00	62.67	1.00
0:05:40	240.56	195.78	44.78	1.00	62.63	1.00
0:05:50	240.56	195.78	44.78	1.00	62.58	1.00
0:06:00	240.53	195.78	44.76	1.00	62.63	1.00
0:06:10	240.56	195.78	44.78	1.00	62.60	1.00
0:06:20	240.53	195.78	44.76	1.00	62.63	1.00
0:06:30	240.49	195.78	44.72	1.00	62.55	0.99
0:06:40	240.49	195.78	44.72	1.00	62.58	1.00
0:06:50	240.51	195.78	44.73	1.00	62.58	1.00
0:07:00	240.49	195.78	44.72	1.00	62.55	0.99
0:07:10	240.49	195.78	44.72	1.00	62.51	0.99
0:07:20	240.44	195.78	44.66	0.99	62.55	0.99
0:07:30	240.43	195.78	44.65	0.99	62.55	0.99
0:07:40	240.40	195.78	44.62	0.99	62.55	0.99
0:07:50	240.44	195.78	44.66	0.99	62.54	0.99
0:08:00	240.40	195.78	44.62	0.99	62.49	0.99
0:08:10	240.40	195.78	44.62	0.99	62.47	0.99

0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	240.38	195.78	44.60	0.99	62.45	0.99
0:08:30	240.38	195.78	44.60	0.99	62.47	0.99
0:08:40	240.40	195.78	44.62	0.99	62.42	0.99
0:08:50	240.36	195.78	44.58	0.99	62.47	0.99
0:09:00	240.34	195.78	44.56	0.99	62.42	0.99
0:09:10	240.36	195.78	44.58	0.99	62.64	1.00
0:09:20	240.31	195.78	44.53	0.99	62.12	0.99
0:09:30	240.34	195.78	44.56	0.99	62.54	0.99
0:09:40	240.34	195.78	44.56	0.99	62.51	0.99
0:09:50	240.27	195.78	44.49	0.99	62.51	0.99
0:10:00	240.27	195.78	44.49	0.99	62.18	0.99
0:10:10	240.31	195.78	44.53	0.99	62.26	0.99
0:10:20	240.31	195.78	44.53	0.99	62.29	0.99
0:10:30	240.30	195.78	44.52	0.99	62.47	0.99
0:10:40	240.27	195.78	44.49	0.99	62.63	1.00
0:10:50	240.27	195.78	44.49	0.99	62.34	0.99
0:11:00	240.27	195.78	44.49	0.99	62.31	0.99
0:11:10	240.24	195.78	44.46	0.99	62.29	0.99
0:11:20	240.23	195.78	44.45	0.99	62.22	0.99
0:11:30	240.24	195.78	44.46	0.99	62.47	0.99
0:11:40	240.23	195.78	44.45	0.99	62.12	0.99
0:11:50	240.23	195.78	44.45	0.99	61.97	0.99
0:12:00	240.20	195.78	44.42	0.99	62.41	0.99
0:12:10	240.18	195.78	44.40	0.99	62.41	0.99
0:12:20	240.20	195.78	44.42	0.99	62.16	0.99
0:12:30	240.18	195.78	44.40	0.99	62.22	0.99
0:12:40	240.16	195.78	44.38	0.99	62.06	0.99
0:12:50	240.18	195.78	44.40	0.99	62.09	0.99
0:13:00	240.16	195.78	44.38	0.99	62.19	0.99
0:13:10	240.16	195.78	44.38	0.99	62.31	0.99
0:13:20	240.14	195.78	44.36	0.99	62.13	0.99
0:13:30	240.16	195.78	44.38	0.99	62.19	0.99
0:13:40	240.14	195.78	44.36	0.99	62.18	0.99
0:13:50	240.11	195.78	44.33	0.99	62.26	0.99
0:14:00	240.14	195.78	44.36	0.99	62.16	0.99
0:14:10	240.10	195.78	44.32	0.99	62.12	0.99
0:14:20	240.11	195.78	44.33	0.99	62.18	0.99
0:14:30	240.10	195.78	44.32	0.99	61.97	0.99
0:14:40	240.07	195.78	44.29	0.99	62.25	0.99
0:14:50	240.07	195.78	44.29	0.99	62.19	0.99
0:15:00	240.10	195.78	44.32	0.99	61.68	0.98
0:15:10	240.04	195.78	44.27	0.99	62.16	0.99
0:15:20	240.04	195.78	44.27	0.99	62.38	0.99
0:15:30	240.04	195.78	44.27	0.99	62.26	0.99
0:15:40	240.04	195.78	44.27	0.99	62.04	0.99
0:15:50	240.00	195.78	44.23	0.98	62.22	0.99
0:16:00	239.98	195.78	44.20	0.98	62.00	0.99
0:16:10	240.03	195.78	44.25	0.99	62.02	0.99
0:16:20	240.03	195.78	44.25	0.99	61.77	0.98
0:16:30	239.98	195.78	44.20	0.98	62.09	0.99

0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	239.96	195.78	44.19	0.98	61.82	0.98
0:16:50	239.96	195.78	44.19	0.98	62.31	0.99
0:17:00	239.96	195.78	44.19	0.98	61.97	0.99
0:17:10	239.96	195.78	44.19	0.98	62.09	0.99
0:17:20	240.00	195.78	44.23	0.98	62.16	0.99
0:17:30	239.94	195.78	44.16	0.98	61.68	0.98
0:17:40	239.96	195.78	44.19	0.98	62.04	0.99
0:17:50	239.94	195.78	44.16	0.98	61.96	0.99
0:18:00	239.94	195.78	44.16	0.98	62.06	0.99
0:18:10	239.96	195.78	44.19	0.98	62.22	0.99
0:18:20	239.94	195.78	44.16	0.98	62.34	0.99
0:18:30	239.94	195.78	44.16	0.98	61.74	0.98
0:18:40	239.94	195.78	44.16	0.98	62.26	0.99
0:18:50	239.94	195.78	44.16	0.98	61.89	0.98
0:19:00	239.94	195.78	44.16	0.98	62.02	0.99
0:19:10	239.91	195.78	44.13	0.98	62.19	0.99
0:19:20	239.90	195.78	44.12	0.98	62.25	0.99
0:19:30	239.90	195.78	44.12	0.98	61.73	0.98
0:19:40	239.94	195.78	44.16	0.98	61.77	0.98
0:19:50	239.91	195.78	44.13	0.98	62.16	0.99
0:20:00	239.91	195.78	44.13	0.98	61.97	0.99
0:20:10	239.90	195.78	44.12	0.98	61.64	0.98
0:20:40	239.83	195.78	44.05	0.98	61.77	0.98
0:21:10	239.83	195.78	44.05	0.98	62.00	0.99
0:21:40	239.83	195.78	44.05	0.98	62.22	0.99
0:22:10	239.81	195.78	44.03	0.98	61.89	0.98
0:22:40	239.81	195.78	44.03	0.98	61.73	0.98
0:23:10	239.77	195.78	43.99	0.98	61.71	0.98
0:23:40	239.77	195.78	43.99	0.98	62.09	0.99
0:24:10	239.77	195.78	43.99	0.98	61.45	0.98
0:24:40	239.77	195.78	43.99	0.98	61.71	0.98
0:25:10	239.77	195.78	43.99	0.98	61.67	0.98
0:25:40	239.74	195.78	43.96	0.98	61.44	0.98
0:26:10	239.74	195.78	43.96	0.98	61.51	0.98
0:26:40	239.70	195.78	43.92	0.98	61.48	0.98
0:27:10	239.67	195.78	43.90	0.98	61.77	0.98
0:27:40	239.62	195.78	43.84	0.98	61.23	0.97
0:28:10	239.58	195.78	43.80	0.98	61.19	0.97
0:28:40	239.61	195.78	43.83	0.98	61.60	0.98
0:29:10	239.54	195.78	43.76	0.97	61.45	0.98
0:29:40	239.54	195.78	43.76	0.97	61.71	0.98
0:30:10	239.51	195.78	43.74	0.97	61.60	0.98
0:30:40	239.45	195.78	43.67	0.97	61.57	0.98
0:31:10	239.41	195.78	43.63	0.97	61.29	0.97
0:31:40	239.38	195.78	43.60	0.97	61.60	0.98
0:32:10	239.38	195.78	43.60	0.97	61.06	0.97
0:32:40	239.36	195.78	43.58	0.97	60.96	0.97
0:33:10	239.34	195.78	43.56	0.97	61.44	0.98
0:33:40	239.32	195.78	43.54	0.97	61.45	0.98
0:34:10	239.32	195.78	43.54	0.97	60.96	0.97

0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:34:40	239.28	195.78	43.50	0.97	61.55	0.98
0:35:10	239.28	195.78	43.50	0.97	61.35	0.98
0:35:40	239.22	195.78	43.45	0.97	60.87	0.97
0:36:10	239.25	195.78	43.47	0.97	60.83	0.97
0:36:40	239.22	195.78	43.45	0.97	60.86	0.97
0:37:10	239.22	195.78	43.45	0.97	61.25	0.97
0:37:40	239.18	195.78	43.41	0.97	61.39	0.98
0:38:10	239.21	195.78	43.43	0.97	61.23	0.97
0:38:40	239.21	195.78	43.43	0.97	61.51	0.98
0:39:10	239.16	195.78	43.38	0.97	60.86	0.97
0:39:40	239.16	195.78	43.38	0.97	60.99	0.97
0:40:10	239.18	195.78	43.41	0.97	61.28	0.97
0:40:40	239.18	195.78	43.41	0.97	60.77	0.97
0:41:10	239.16	195.78	43.38	0.97	61.12	0.97
0:41:40	239.12	195.78	43.34	0.96	60.94	0.97
0:42:10	239.12	195.78	43.34	0.96	61.35	0.98
0:42:40	239.09	195.78	43.31	0.96	60.96	0.97
0:43:10	239.08	195.78	43.30	0.96	61.25	0.97
0:43:40	239.01	195.78	43.23	0.96	60.58	0.96
0:44:10	239.03	195.63	43.40	0.97	61.02	0.97
0:44:40	238.99	195.63	43.36	0.97	60.63	0.96
0:45:10	238.95	195.63	43.32	0.96	60.99	0.97
0:45:40	238.96	195.63	43.33	0.96	61.22	0.97
0:46:10	238.95	195.63	43.32	0.96	60.79	0.97
0:46:40	238.92	195.63	43.29	0.96	60.54	0.96
0:47:10	238.92	195.63	43.29	0.96	60.47	0.96
0:47:40	238.88	195.63	43.26	0.96	60.57	0.96
0:48:10	238.88	195.63	43.26	0.96	60.79	0.97
0:48:40	238.88	195.63	43.26	0.96	60.51	0.96
0:49:10	238.85	195.63	43.23	0.96	60.67	0.97
0:49:40	238.83	195.63	43.20	0.96	60.73	0.97
0:50:10	238.81	195.63	43.19	0.96	60.86	0.97
0:51:10	238.79	195.63	43.16	0.96	60.61	0.96
0:52:10	238.81	195.63	43.19	0.96	60.94	0.97
0:53:10	238.76	195.63	43.14	0.96	60.51	0.96
0:54:10	238.76	195.63	43.14	0.96	60.65	0.96
0:55:10	238.69	195.63	43.07	0.96	60.58	0.96
0:56:10	238.69	195.63	43.07	0.96	60.63	0.96
0:57:10	238.62	195.63	42.99	0.96	60.42	0.96
0:58:10	238.56	195.63	42.94	0.96	60.00	0.95
0:59:10	238.47	195.63	42.84	0.95	60.28	0.96
1:00:10	238.39	195.63	42.77	0.95	60.32	0.96
1:01:10	238.36	195.63	42.74	0.95	60.20	0.96
1:02:10	238.28	195.63	42.66	0.95	60.34	0.96
1:03:10	238.26	195.63	42.63	0.95	60.16	0.96
1:04:10	238.20	195.63	42.58	0.95	60.20	0.96
1:05:10	238.17	195.63	42.54	0.95	59.80	0.95
1:06:10	238.14	195.63	42.51	0.95	60.29	0.96
1:07:10	238.14	195.63	42.51	0.95	59.67	0.95
1:08:10	238.07	195.63	42.45	0.95	60.16	0.96

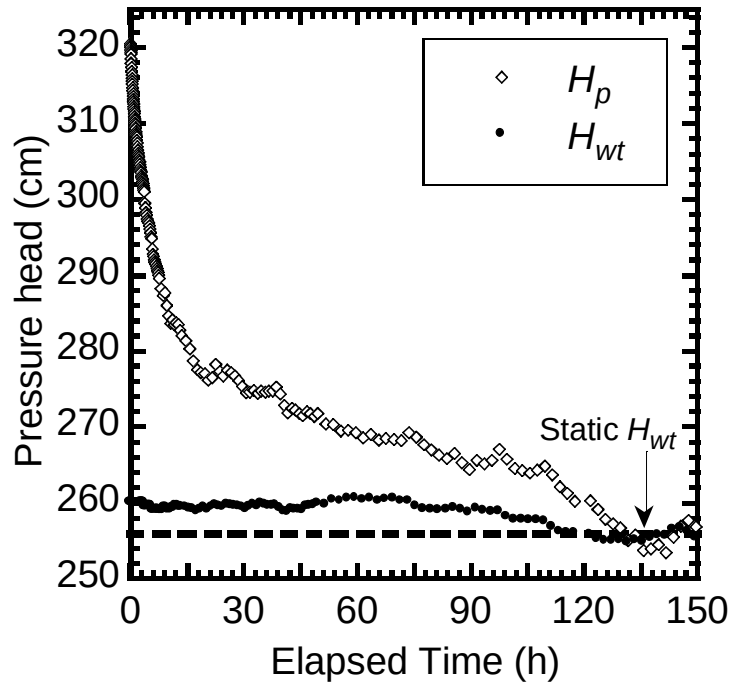
0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:09:10	238.01	195.63	42.38	0.94	59.62	0.95
1:10:10	237.97	195.63	42.34	0.94	59.92	0.95
1:11:10	237.93	195.63	42.30	0.94	60.12	0.96
1:12:10	237.93	195.63	42.30	0.94	59.55	0.95
1:13:10	237.93	195.63	42.30	0.94	59.89	0.95
1:14:10	237.93	195.63	42.30	0.94	59.71	0.95
1:15:10	237.94	195.63	42.32	0.94	59.42	0.95
1:16:10	237.94	195.63	42.32	0.94	59.67	0.95
1:17:10	237.93	195.63	42.30	0.94	59.55	0.95
1:18:10	237.94	195.63	42.32	0.94	59.10	0.94
1:19:10	237.93	195.63	42.30	0.94	59.69	0.95
1:20:10	237.93	195.63	42.30	0.94	59.60	0.95
1:21:10	237.87	195.63	42.25	0.94	59.48	0.95
1:22:10	237.87	195.63	42.25	0.94	59.40	0.94
1:23:10	237.84	195.63	42.21	0.94	59.03	0.94
1:24:10	237.80	195.63	42.17	0.94	59.64	0.95
1:25:10	237.77	195.63	42.14	0.94	59.51	0.95
1:26:10	237.77	195.63	42.14	0.94	59.29	0.94
1:27:10	237.73	195.63	42.10	0.94	59.58	0.95
1:28:10	237.73	195.63	42.10	0.94	59.22	0.94
1:29:10	237.66	195.63	42.04	0.94	59.26	0.94
1:30:10	237.57	195.63	41.95	0.93	59.02	0.94
1:31:10	237.53	195.63	41.91	0.93	58.97	0.94
1:32:10	237.50	195.63	41.88	0.93	59.13	0.94
1:33:10	237.48	195.63	41.85	0.93	59.10	0.94
1:34:10	237.46	195.63	41.84	0.93	59.03	0.94
1:35:10	237.44	195.63	41.81	0.93	58.90	0.94
1:36:10	237.40	195.63	41.77	0.93	58.80	0.94
1:37:10	237.41	195.63	41.79	0.93	58.99	0.94
1:38:10	237.40	195.63	41.77	0.93	59.22	0.94
1:39:10	237.32	195.63	41.69	0.93	58.95	0.94
1:40:10	237.28	195.63	41.65	0.93	58.93	0.94
1:41:10	237.28	195.63	41.65	0.93	58.64	0.93
1:42:10	237.24	195.63	41.61	0.93	58.80	0.94
1:43:10	237.19	195.63	41.56	0.93	58.80	0.94
1:44:10	238.17	196.52	41.64	0.93	58.57	0.93
1:45:10	238.10	196.52	41.58	0.93	58.54	0.93
1:46:10	238.13	196.52	41.60	0.93	58.32	0.93
1:47:10	238.06	196.52	41.54	0.92	58.70	0.93
1:48:10	238.03	196.52	41.51	0.92	58.80	0.94
1:49:10	237.97	196.52	41.45	0.92	58.23	0.93
1:50:10	237.94	196.52	41.42	0.92	58.29	0.93
2:00:10	237.48	196.52	40.96	0.91	58.41	0.93
2:10:10	237.33	196.52	40.81	0.91	58.03	0.92
2:20:10	237.35	196.52	40.82	0.91	57.94	0.92
2:30:10	236.79	196.52	40.27	0.90	58.05	0.92
2:40:10	236.53	196.52	40.00	0.89	57.74	0.92
2:50:10	236.33	196.43	39.90	0.89	56.67	0.90
3:00:10	236.29	196.43	39.86	0.89	56.67	0.90
3:10:10	236.06	196.43	39.63	0.88	56.80	0.90

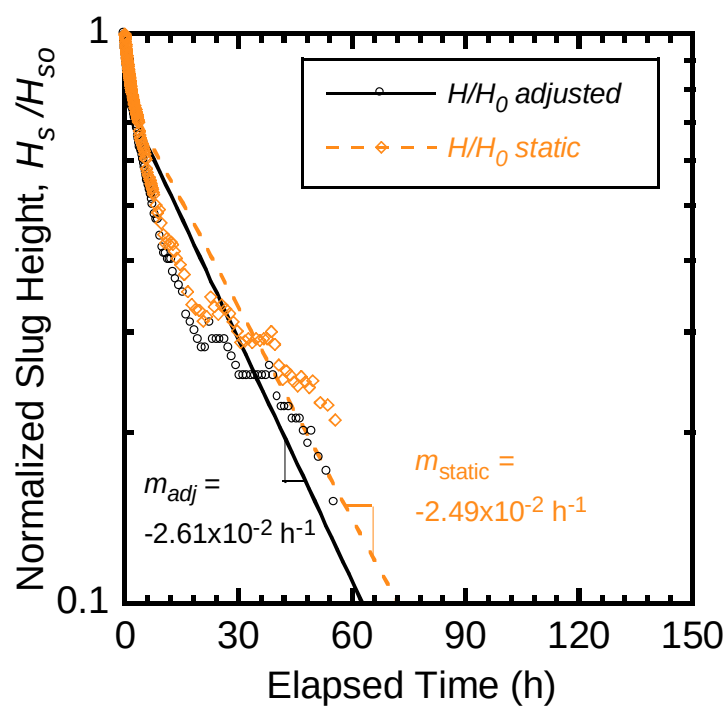
0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:20:10	236.02	196.43	39.59	0.88	56.11	0.89
3:30:10	235.77	196.43	39.34	0.88	55.83	0.89
3:40:10	235.60	196.43	39.17	0.87	55.50	0.88
3:50:10	235.44	196.48	38.96	0.87	54.87	0.87
4:00:10	235.14	196.48	38.66	0.86	54.34	0.86
4:10:10	234.82	196.48	38.34	0.85	54.58	0.87
4:20:10	234.58	196.48	38.10	0.85	54.15	0.86
4:30:10	234.45	196.48	37.97	0.85	53.76	0.86
4:40:10	234.21	196.48	37.73	0.84	53.31	0.85
4:50:10	234.19	196.75	37.44	0.83	53.15	0.85
5:00:10	234.45	196.75	37.70	0.84	52.67	0.84
5:10:10	234.26	196.75	37.51	0.84	52.47	0.83
5:20:10	234.21	196.75	37.46	0.83	52.08	0.83
5:30:10	234.16	196.75	37.41	0.83	51.79	0.82
5:40:10	233.79	196.75	37.04	0.82	51.43	0.82
5:50:10	232.72	196.14	36.57	0.81	50.99	0.81
6:20:10	232.57	196.14	36.43	0.81	51.68	0.82
6:50:10	232.29	197.00	35.30	0.79	51.42	0.82
7:20:10	232.09	197.00	35.10	0.78	50.54	0.80
7:50:10	231.30	196.54	34.76	0.77	49.67	0.79
8:20:10	231.33	196.54	34.79	0.77	48.76	0.78
8:50:10	231.01	197.08	33.93	0.76	48.79	0.78
9:20:10	230.53	197.08	33.45	0.74	47.74	0.76
9:50:10	229.38	196.47	32.91	0.73	46.78	0.74
10:20:10	229.19	196.47	32.72	0.73	45.90	0.73
10:50:10	228.93	196.85	32.08	0.71	45.86	0.73
11:20:10	228.71	196.85	31.86	0.71	45.14	0.72
11:50:10	228.60	197.12	31.48	0.70	44.53	0.71
12:50:10	227.13	196.56	30.57	0.68	43.79	0.70
13:50:10	227.00	197.00	30.00	0.67	43.14	0.69
14:50:10	225.78	196.55	29.23	0.65	41.60	0.66
15:50:10	224.79	196.08	28.71	0.64	40.44	0.64
16:50:10	224.68	196.77	27.91	0.62	39.72	0.63
17:50:10	223.92	196.47	27.45	0.61	38.00	0.60
18:50:10	223.14	195.89	27.25	0.61	37.59	0.60
19:50:10	222.92	196.36	26.56	0.59	35.78	0.57
20:50:10	221.89	195.59	26.30	0.59	35.13	0.56
21:50:10	221.49	195.65	25.84	0.58	34.66	0.55
22:50:10	220.87	195.73	25.14	0.56	33.69	0.54
23:50:10	220.42	195.81	24.61	0.55	31.92	0.51
24:50:10	219.91	195.89	24.03	0.53	32.19	0.51
25:50:10	219.50	196.00	23.50	0.52	31.34	0.50
26:50:10	219.04	196.14	22.90	0.51	30.28	0.48
27:50:10	218.74	196.44	22.30	0.50	29.64	0.47
28:50:10	217.66	195.73	21.94	0.49	29.41	0.47
29:50:10	217.66	195.88	21.79	0.49	28.37	0.45
30:50:10	217.27	195.92	21.35	0.48	27.59	0.44
31:50:10	216.94	195.92	21.01	0.47	26.42	0.42
32:50:10	216.38	195.95	20.43	0.45	26.21	0.42
33:50:10	216.01	196.07	19.94	0.44	25.10	0.40

0+79.3	4.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
34:50:10	214.60	195.23	19.36	0.43	24.98	0.40
35:50:10	214.54	195.25	19.29	0.43	23.78	0.38
36:50:10	214.21	195.31	18.90	0.42	23.17	0.37
37:50:10	213.79	195.44	18.35	0.41	22.68	0.36
38:50:10	213.59	195.62	17.97	0.40	22.47	0.36
39:50:10	213.39	195.71	17.68	0.39	22.09	0.35
40:50:10	213.06	195.93	17.13	0.38	21.30	0.34
41:50:10	212.04	194.97	17.07	0.38	20.70	0.33
42:50:10	211.75	194.96	16.79	0.37	20.19	0.32
43:50:10	212.41	195.81	16.60	0.37	20.25	0.32
44:50:10	211.86	195.56	16.30	0.36	19.60	0.31
45:50:10	211.06	195.10	15.96	0.36	19.24	0.31
46:50:10	211.04	195.60	15.43	0.34	18.22	0.29
47:50:10	210.97	196.42	14.55	0.32	17.87	0.28
49:50:10	209.95	196.07	13.89	0.31	17.00	0.27
51:50:10	209.31	195.92	13.38	0.30	17.12	0.27
53:50:10	208.68	195.90	12.79	0.28	16.57	0.26
55:50:10	208.82	196.66	12.15	0.27	15.65	0.25
57:50:10	208.16	196.41	11.75	0.26	15.43	0.25
59:50:10	207.31	195.87	11.44	0.25	14.17	0.23
61:50:10	206.83	196.63	10.20	0.23	13.85	0.22
63:50:10	206.37	196.36	10.01	0.22	13.20	0.21
65:50:10	205.05	195.69	9.35	0.21	12.64	0.20
67:50:10	205.95	196.42	9.53	0.21	12.11	0.19
69:50:10	205.59	196.65	8.94	0.20	11.48	0.18
71:50:10	204.55	196.65	7.90	0.18	11.43	0.18
73:50:10	204.28	197.31	6.97	0.16	10.39	0.17
75:50:10	204.09	197.23	6.86	0.15	10.17	0.16
77:50:10	202.91	196.07	6.84	0.15	9.86	0.16
79:50:10	203.19	196.63	6.56	0.15	10.48	0.17
81:50:10	203.02	196.85	6.16	0.14	9.57	0.15
83:50:10	202.61	196.95	5.66	0.13	8.92	0.14
85:50:10	202.03	197.00	5.03	0.11	9.07	0.14
87:50:10	201.96	197.33	4.64	0.10	8.74	0.14
89:50:10	202.37	197.77	4.60	0.10	8.18	0.13
91:50:10	202.18	197.71	4.46	0.10	7.52	0.12
93:50:10	202.34	198.13	4.21	0.09	8.16	0.13
95:50:10	202.10	199.21	2.89	0.06	7.23	0.12
97:50:10	202.21	199.72	2.49	0.06	6.74	0.11
99:50:10	201.72	199.86	1.86	0.04	6.58	0.10
101:50:10	201.63	200.16	1.47	0.03	5.81	0.09
103:50:10	201.11	198.70	2.41	0.05	6.30	0.10
105:50:10	200.70	197.44	3.26	0.07	6.33	0.10
107:50:10	200.34	196.96	3.38	0.08	6.08	0.10
109:50:10	199.97	196.99	2.98	0.07	5.56	0.09
111:50:10	199.60	196.45	3.15	0.07	4.77	0.08
113:50:10	199.45	196.15	3.29	0.07	4.90	0.08
115:50:10	199.79	195.94	3.85	0.09	5.41	0.09
117:50:10	199.57	195.89	3.67	0.08	4.48	0.07
119:50:10	198.53	195.50	3.03	0.07	5.01	0.08

0+79.3	**4.0 m**					**Test #2**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
121:50:10	198.10	195.78	2.32	0.05	3.69	0.06
123:50:10	197.96	195.82	2.15	0.05	4.52	0.07
125:50:10	197.79	195.43	2.36	0.05	4.17	0.07
127:50:10	197.89	194.52	3.37	0.08	4.04	0.06
129:50:10	196.91	193.79	3.13	0.07	3.91	0.06
131:50:10	197.09	194.18	2.91	0.06	3.79	0.06
133:50:10	196.41	193.98	2.43	0.05	3.66	0.06
135:50:10	196.38	193.62	2.76	0.06	3.53	0.06
137:50:10	195.85	193.42	2.43	0.05	3.40	0.05
139:50:10	196.63	194.18	2.45	0.05	3.27	0.05
141:50:10	196.29	194.18	2.11	0.05	3.15	0.05
143:50:10	196.90	195.87	1.03	0.02	3.02	0.05
145:50:10	195.55	195.14	0.41	0.01	2.89	0.05
147:50:10	195.06	195.20	-0.14	0.00	2.76	0.04
149:50:10	194.90	194.44	0.47	0.01	2.64	0.04

Test Location (m)	**0+79.3**	**Effective Stress on date of test (kPa)**	**10.0**
Depth (m)	4.0	**Test # in well**	3
Well #	8	**Test Type**	Rate of Fall
Start Date of Test	3/11/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	255.9
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	60.5/64.6
k_{adj} (cm/s)	2.14E-07	**k_{static} (cm/s)**	2.04E-07





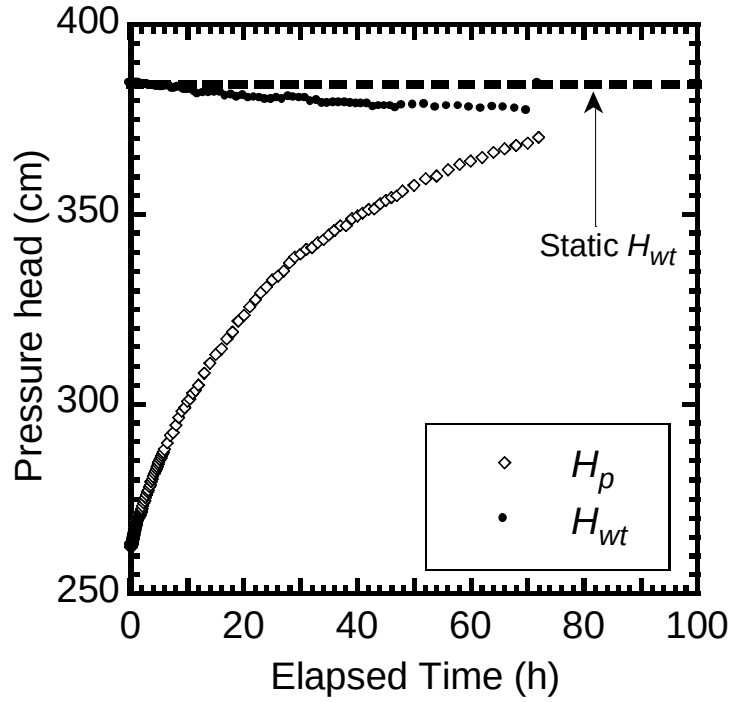
0+79.3	4.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	320.49	260.02	60.47	1.00	60.47	1.00
0:01:00	320.25	260.02	60.24	1.00	60.24	1.00
0:02:00	320.04	260.02	60.02	0.99	60.02	0.99
0:03:00	319.79	260.02	59.77	0.99	59.77	0.99
0:04:00	319.58	260.02	59.56	0.98	59.56	0.98
0:05:00	319.34	260.02	59.32	0.98	59.32	0.98
0:06:00	319.14	260.02	59.13	0.98	59.13	0.98
0:09:00	318.54	260.02	58.52	0.97	58.52	0.97
0:12:00	317.94	260.02	57.92	0.96	57.92	0.96
0:15:00	317.41	260.02	57.39	0.95	57.39	0.95
0:18:00	316.88	260.02	56.86	0.94	56.86	0.94
0:21:00	316.44	260.02	56.43	0.93	56.43	0.93
0:24:00	315.97	260.02	55.95	0.93	55.95	0.93
0:27:00	315.57	260.02	55.55	0.92	55.55	0.92
0:30:00	315.20	260.02	55.18	0.91	55.18	0.91
0:33:00	314.74	260.02	54.72	0.90	54.72	0.90
0:36:00	314.34	260.02	54.32	0.90	54.32	0.90
0:39:00	313.94	260.02	53.92	0.89	53.92	0.89
0:42:00	313.56	259.97	53.59	0.89	53.54	0.89
0:45:00	313.20	259.97	53.24	0.88	53.18	0.88
0:48:00	312.94	259.97	52.97	0.88	52.92	0.88
0:51:00	312.59	259.97	52.63	0.87	52.58	0.87
0:54:00	312.22	259.97	52.26	0.86	52.21	0.86
0:57:00	311.89	259.97	51.93	0.86	51.87	0.86
1:00:00	311.57	259.97	51.61	0.85	51.56	0.85
1:03:00	311.27	259.97	51.30	0.85	51.25	0.85
1:06:00	310.94	259.97	50.97	0.84	50.92	0.84
1:09:00	310.66	259.97	50.70	0.84	50.64	0.84
1:12:00	310.37	259.97	50.40	0.83	50.35	0.83
1:15:00	310.11	259.97	50.14	0.83	50.09	0.83
1:18:00	309.83	259.97	49.86	0.82	49.81	0.82
1:21:00	309.50	259.97	49.53	0.82	49.48	0.82
1:24:00	309.29	259.97	49.32	0.82	49.27	0.81
1:27:00	308.97	259.97	49.00	0.81	48.95	0.81
1:30:00	308.67	259.97	48.70	0.81	48.65	0.80
1:33:00	308.44	259.97	48.47	0.80	48.42	0.80
1:36:00	308.29	259.97	48.33	0.80	48.28	0.80
1:41:00	307.79	259.97	47.82	0.79	47.77	0.79
1:46:00	307.42	259.97	47.45	0.78	47.40	0.78
1:51:00	306.96	259.97	46.99	0.78	46.94	0.78
1:56:00	306.49	259.97	46.52	0.77	46.48	0.77
2:01:00	306.12	259.97	46.15	0.76	46.11	0.76
2:06:00	305.83	259.97	45.86	0.76	45.81	0.76
2:11:00	305.60	259.97	45.63	0.75	45.58	0.75
2:16:00	305.24	259.97	45.27	0.75	45.22	0.75
2:21:00	304.99	259.97	45.02	0.74	44.97	0.74
2:26:00	304.63	259.97	44.66	0.74	44.61	0.74
2:31:00	304.26	259.97	44.29	0.73	44.24	0.73
2:36:00	303.86	259.97	43.89	0.73	43.84	0.72
2:41:00	303.69	260.02	43.67	0.72	43.67	0.72

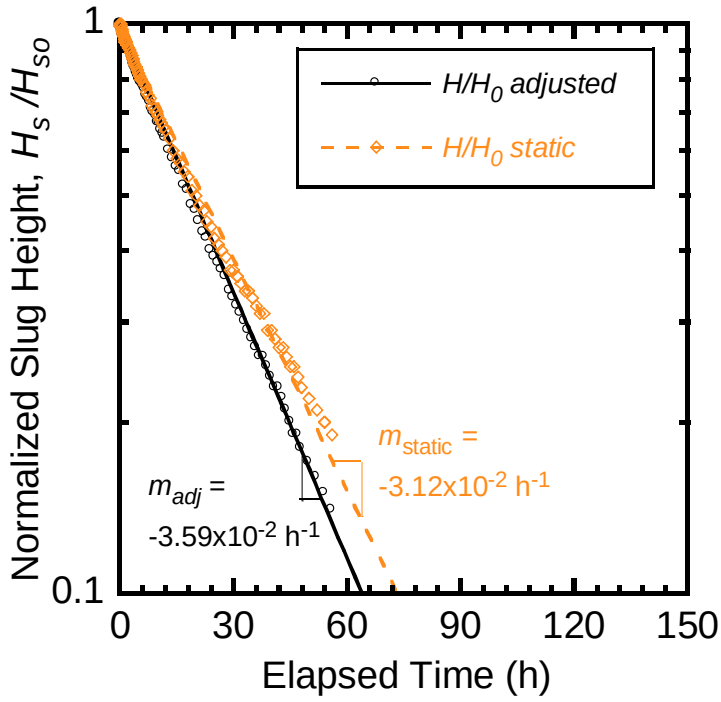
0+79.3	4.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:46:00	303.53	260.02	43.51	0.72	43.51	0.72
2:51:00	303.19	260.02	43.17	0.71	43.17	0.71
2:56:00	303.03	260.02	43.01	0.71	43.01	0.71
3:01:00	302.76	260.02	42.75	0.71	42.75	0.71
3:06:00	302.59	260.02	42.57	0.70	42.57	0.70
3:11:00	302.34	260.02	42.32	0.70	42.32	0.70
3:16:00	302.09	260.02	42.07	0.70	42.07	0.70
3:21:00	301.80	260.02	41.78	0.69	41.78	0.69
3:26:00	301.49	260.02	41.48	0.69	41.48	0.69
3:31:00	301.23	260.02	41.21	0.68	41.21	0.68
3:36:00	301.03	260.02	41.01	0.68	41.01	0.68
3:46:00	299.53	259.55	39.98	0.66	39.52	0.65
3:56:00	298.85	259.55	39.29	0.65	38.83	0.64
4:06:00	298.28	259.55	38.72	0.64	38.26	0.63
4:16:00	297.91	259.55	38.35	0.63	37.89	0.63
4:26:00	297.46	259.55	37.90	0.63	37.44	0.62
4:36:00	297.14	259.55	37.59	0.62	37.12	0.61
4:46:00	296.89	259.61	37.28	0.62	36.87	0.61
4:56:00	296.52	259.61	36.91	0.61	36.50	0.60
5:06:00	296.11	259.61	36.50	0.60	36.09	0.60
5:16:00	295.62	259.61	36.01	0.60	35.60	0.59
5:26:00	295.08	259.61	35.47	0.59	35.06	0.58
5:36:00	294.83	259.61	35.22	0.58	34.81	0.58
5:46:00	293.46	259.08	34.38	0.57	33.44	0.55
5:56:00	292.84	259.08	33.76	0.56	32.82	0.54
6:06:00	292.47	259.08	33.39	0.55	32.45	0.54
6:16:00	292.07	259.08	32.99	0.55	32.05	0.53
6:26:00	291.77	259.08	32.69	0.54	31.75	0.53
6:36:00	291.54	259.08	32.46	0.54	31.52	0.52
6:46:00	291.21	259.09	32.12	0.53	31.19	0.52
6:56:00	290.91	259.09	31.82	0.53	30.89	0.51
7:06:00	290.60	259.09	31.51	0.52	30.59	0.51
7:16:00	290.38	259.09	31.29	0.52	30.36	0.50
7:26:00	289.98	259.09	30.89	0.51	29.96	0.50
7:36:00	289.61	259.09	30.52	0.50	29.59	0.49
8:06:00	288.25	258.99	29.26	0.48	28.23	0.47
8:36:00	287.32	258.99	28.34	0.47	27.30	0.45
9:06:00	287.67	259.39	28.28	0.47	27.65	0.46
9:36:00	286.01	259.39	26.63	0.44	26.00	0.43
10:06:00	284.65	259.10	25.55	0.42	24.63	0.41
10:36:00	283.65	259.10	24.55	0.41	23.63	0.39
11:06:00	284.14	259.30	24.84	0.41	24.12	0.40
11:36:00	283.51	259.30	24.21	0.40	23.50	0.39
12:06:00	283.77	259.64	24.13	0.40	23.75	0.39
12:36:00	283.53	259.64	23.89	0.40	23.51	0.39
13:06:00	282.75	259.48	23.27	0.38	22.73	0.38
13:36:00	282.05	259.48	22.57	0.37	22.03	0.36
14:36:00	281.35	259.35	21.99	0.36	21.33	0.35
15:36:00	280.31	259.25	21.07	0.35	20.30	0.34
16:36:00	278.74	259.12	19.62	0.32	18.72	0.31

0+79.3	4.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
17:36:00	277.54	258.83	18.70	0.31	17.52	0.29
18:36:00	277.17	259.10	18.07	0.30	17.15	0.28
19:36:00	277.05	259.36	17.68	0.29	17.03	0.28
20:36:00	276.18	259.08	17.09	0.28	16.16	0.27
21:36:00	276.52	259.34	17.18	0.28	16.50	0.27
22:36:00	278.22	259.66	18.56	0.31	18.20	0.30
23:36:00	277.38	259.55	17.83	0.29	17.36	0.29
24:36:00	276.75	259.37	17.37	0.29	16.73	0.28
25:36:00	277.48	259.74	17.73	0.29	17.46	0.29
26:36:00	277.20	259.68	17.52	0.29	17.18	0.28
27:36:00	276.77	259.59	17.19	0.28	16.76	0.28
28:36:00	276.09	259.50	16.58	0.27	16.07	0.27
29:36:00	275.36	259.37	15.99	0.26	15.34	0.25
30:36:00	274.49	259.18	15.30	0.25	14.47	0.24
31:36:00	274.59	259.47	15.13	0.25	14.57	0.24
32:36:00	274.82	259.74	15.08	0.25	14.80	0.24
33:36:00	274.47	259.52	14.96	0.25	14.46	0.24
34:36:00	274.78	259.90	14.88	0.25	14.76	0.24
35:36:00	274.65	259.72	14.93	0.25	14.63	0.24
36:36:00	274.78	259.64	15.14	0.25	14.76	0.24
37:36:00	274.77	259.64	15.12	0.25	14.75	0.24
38:36:00	275.33	259.71	15.63	0.26	15.32	0.25
39:36:00	274.34	259.31	15.03	0.25	14.32	0.24
40:36:00	272.83	258.86	13.97	0.23	12.81	0.21
41:36:00	271.88	258.78	13.10	0.22	11.86	0.20
42:36:00	272.49	259.17	13.32	0.22	12.47	0.21
43:36:00	272.20	259.07	13.13	0.22	12.18	0.20
44:36:00	271.76	259.04	12.72	0.21	11.74	0.19
45:36:00	271.47	259.01	12.46	0.21	11.45	0.19
46:36:00	272.05	259.53	12.52	0.21	12.04	0.20
47:36:00	271.76	259.60	12.17	0.20	11.74	0.19
48:36:00	271.37	259.70	11.67	0.19	11.35	0.19
49:36:00	271.83	259.90	11.93	0.20	11.81	0.20
51:36:00	270.44	259.75	10.69	0.18	10.42	0.17
53:36:00	270.35	260.28	10.06	0.17	10.33	0.17
55:36:00	269.51	260.21	9.31	0.15	9.50	0.16
57:36:00	269.54	260.54	9.00	0.15	9.52	0.16
59:36:00	269.24	260.62	8.62	0.14	9.22	0.15
61:36:00	268.58	260.28	8.29	0.14	8.56	0.14
63:36:00	269.05	260.49	8.57	0.14	9.04	0.15
65:36:00	268.27	260.19	8.08	0.13	8.26	0.14
67:36:00	268.55	260.37	8.18	0.14	8.53	0.14
69:36:00	268.38	260.49	7.89	0.13	8.36	0.14
71:36:00	268.21	260.19	8.02	0.13	8.19	0.14
73:36:00	269.24	260.22	9.02	0.15	9.22	0.15
75:36:00	268.68	259.52	9.16	0.15	8.66	0.14
77:36:00	267.70	259.15	8.55	0.14	7.69	0.13
79:36:00	267.00	259.11	7.89	0.13	6.98	0.12
81:36:00	266.27	258.96	7.31	0.12	6.26	0.10
83:36:00	265.88	259.11	6.77	0.11	5.86	0.10

0+79.3	**4.0 m**					**Test #3**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
85:36:00	266.53	259.27	7.25	0.12	6.51	0.11
87:36:00	265.31	259.07	6.24	0.10	5.29	0.09
89:36:00	264.39	258.70	5.69	0.09	4.37	0.07
91:36:00	265.60	259.24	6.37	0.11	5.59	0.09
93:36:00	265.12	258.93	6.18	0.10	5.10	0.08
95:36:00	265.64	258.76	6.88	0.11	5.63	0.09
97:36:00	267.06	258.88	8.18	0.14	7.04	0.12
99:36:00	265.75	258.15	7.60	0.13	5.73	0.09
101:36:00	264.56	257.81	6.74	0.11	4.54	0.08
103:36:00	264.27	257.80	6.47	0.11	4.25	0.07
105:36:00	263.97	257.72	6.26	0.10	3.96	0.07
107:36:00	264.32	257.71	6.61	0.11	4.30	0.07
109:36:00	264.89	257.55	7.34	0.12	4.87	0.08
111:36:00	263.72	256.76	6.96	0.12	3.70	0.06

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	1
Well #	9	**Test Type**	Rate of Rise
Start Date of Test	8/8/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	384.4
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	122.0
k_{adj} (cm/s)	2.95E-07	**k_{static} (cm/s)**	2.56E-07





0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	262.45	384.42	121.97	1.00	121.97	1.00
0:00:07	262.96	384.42	121.46	1.00	121.46	1.00
0:00:17	262.85	384.42	121.57	1.00	121.57	1.00
0:00:27	262.36	384.42	122.06	1.00	122.06	1.00
0:00:37	262.41	384.42	122.00	1.00	122.00	1.00
0:00:47	262.39	384.42	122.03	1.00	122.03	1.00
0:00:57	262.39	384.42	122.03	1.00	122.03	1.00
0:01:07	263.29	384.42	121.13	0.99	121.13	0.99
0:01:17	263.42	384.42	121.00	0.99	121.00	0.99
0:01:27	263.47	384.42	120.95	0.99	120.95	0.99
0:01:37	263.49	384.42	120.93	0.99	120.93	0.99
0:01:47	263.51	384.42	120.91	0.99	120.91	0.99
0:01:57	263.54	384.42	120.88	0.99	120.88	0.99
0:02:07	263.54	384.42	120.88	0.99	120.88	0.99
0:02:17	263.54	384.42	120.88	0.99	120.88	0.99
0:02:27	263.55	384.42	120.87	0.99	120.87	0.99
0:02:37	262.59	384.42	121.83	1.00	121.83	1.00
0:02:47	262.52	384.42	121.90	1.00	121.90	1.00
0:02:57	262.48	384.42	121.94	1.00	121.94	1.00
0:03:07	262.45	384.42	121.97	1.00	121.97	1.00
0:03:17	262.43	384.42	121.99	1.00	121.99	1.00
0:03:27	262.41	384.42	122.00	1.00	122.00	1.00
0:03:37	262.43	384.42	121.99	1.00	121.99	1.00
0:03:47	262.23	384.42	122.19	1.00	122.19	1.00
0:03:57	262.23	384.42	122.19	1.00	122.19	1.00
0:04:07	262.23	384.42	122.19	1.00	122.19	1.00
0:04:17	262.26	384.42	122.16	1.00	122.16	1.00
0:04:27	262.26	384.42	122.16	1.00	122.16	1.00
0:04:37	262.28	384.42	122.14	1.00	122.14	1.00
0:04:47	262.28	384.42	122.14	1.00	122.14	1.00
0:04:57	262.28	384.42	122.14	1.00	122.14	1.00
0:05:07	262.29	384.42	122.13	1.00	122.13	1.00
0:05:17	262.29	384.42	122.13	1.00	122.13	1.00
0:05:27	262.29	384.42	122.13	1.00	122.13	1.00
0:05:37	262.28	384.42	122.14	1.00	122.14	1.00
0:05:47	262.32	384.42	122.10	1.00	122.10	1.00
0:05:57	262.32	384.42	122.10	1.00	122.10	1.00
0:06:07	262.36	384.42	122.06	1.00	122.06	1.00
0:06:17	262.35	384.42	122.07	1.00	122.07	1.00
0:06:27	262.39	384.42	122.03	1.00	122.03	1.00
0:06:37	262.39	384.42	122.03	1.00	122.03	1.00
0:06:47	262.36	384.42	122.06	1.00	122.06	1.00
0:06:57	262.39	384.42	122.03	1.00	122.03	1.00
0:07:07	262.36	384.42	122.06	1.00	122.06	1.00
0:07:17	262.43	384.42	121.99	1.00	121.99	1.00
0:07:27	262.45	384.42	121.97	1.00	121.97	1.00
0:07:37	262.45	384.42	121.97	1.00	121.97	1.00
0:07:47	262.48	384.42	121.94	1.00	121.94	1.00
0:07:57	262.49	384.42	121.93	1.00	121.93	1.00
0:08:07	262.48	384.42	121.94	1.00	121.94	1.00

0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:17	262.52	384.42	121.90	1.00	121.90	1.00
0:08:27	262.55	384.42	121.87	1.00	121.87	1.00
0:08:37	262.56	384.42	121.86	1.00	121.86	1.00
0:08:47	262.56	384.42	121.86	1.00	121.86	1.00
0:08:57	262.55	384.42	121.87	1.00	121.87	1.00
0:09:07	262.55	384.42	121.87	1.00	121.87	1.00
0:09:17	262.59	384.42	121.83	1.00	121.83	1.00
0:09:27	262.62	384.42	121.79	1.00	121.79	1.00
0:09:37	262.65	384.42	121.77	1.00	121.77	1.00
0:09:47	262.65	384.42	121.77	1.00	121.77	1.00
0:09:57	262.69	384.42	121.73	1.00	121.73	1.00
0:10:07	262.69	384.42	121.73	1.00	121.73	1.00
0:10:17	262.75	384.42	121.67	1.00	121.67	1.00
0:10:27	262.72	384.42	121.70	1.00	121.70	1.00
0:10:37	262.75	384.42	121.67	1.00	121.67	1.00
0:10:47	262.76	384.42	121.66	1.00	121.66	1.00
0:10:57	262.75	384.42	121.67	1.00	121.67	1.00
0:11:07	262.81	384.42	121.61	1.00	121.61	1.00
0:11:17	262.81	384.42	121.61	1.00	121.61	1.00
0:11:27	262.81	384.42	121.61	1.00	121.61	1.00
0:11:37	262.81	384.42	121.61	1.00	121.61	1.00
0:11:47	262.85	384.42	121.57	1.00	121.57	1.00
0:11:57	262.88	384.42	121.54	1.00	121.54	1.00
0:12:07	262.85	384.42	121.57	1.00	121.57	1.00
0:12:17	262.88	384.42	121.54	1.00	121.54	1.00
0:12:27	262.92	384.42	121.50	1.00	121.50	1.00
0:12:37	262.89	384.42	121.53	1.00	121.53	1.00
0:12:47	262.96	384.42	121.46	1.00	121.46	1.00
0:12:57	262.98	384.38	121.40	1.00	121.44	1.00
0:13:07	263.02	384.38	121.36	1.00	121.40	1.00
0:13:17	263.05	384.38	121.33	0.99	121.37	1.00
0:13:27	263.02	384.38	121.36	1.00	121.40	1.00
0:13:37	263.08	384.38	121.31	0.99	121.34	0.99
0:13:47	263.09	384.38	121.29	0.99	121.33	0.99
0:13:57	263.09	384.38	121.29	0.99	121.33	0.99
0:14:07	263.14	384.38	121.24	0.99	121.28	0.99
0:14:17	263.14	384.38	121.24	0.99	121.28	0.99
0:14:27	263.21	384.38	121.18	0.99	121.21	0.99
0:14:37	263.18	384.38	121.20	0.99	121.24	0.99
0:14:47	263.15	384.38	121.23	0.99	121.26	0.99
0:14:57	263.21	384.38	121.18	0.99	121.21	0.99
0:15:07	263.22	384.38	121.16	0.99	121.20	0.99
0:15:17	263.22	384.38	121.16	0.99	121.20	0.99
0:15:27	263.22	384.38	121.16	0.99	121.20	0.99
0:15:37	263.29	384.38	121.10	0.99	121.13	0.99
0:15:47	263.27	384.38	121.11	0.99	121.15	0.99
0:15:57	263.29	384.38	121.10	0.99	121.13	0.99
0:16:07	263.34	384.38	121.04	0.99	121.08	0.99
0:16:17	263.34	384.38	121.04	0.99	121.08	0.99
0:16:27	263.35	384.38	121.03	0.99	121.07	0.99

0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:37	263.35	384.38	121.03	0.99	121.07	0.99
0:16:47	263.45	384.38	120.94	0.99	120.97	0.99
0:16:57	263.41	384.38	120.98	0.99	121.01	0.99
0:17:07	263.47	384.38	120.91	0.99	120.95	0.99
0:17:17	263.47	384.38	120.91	0.99	120.95	0.99
0:17:27	263.47	384.38	120.91	0.99	120.95	0.99
0:17:37	263.49	384.38	120.90	0.99	120.93	0.99
0:17:47	263.55	384.38	120.83	0.99	120.87	0.99
0:17:57	263.62	384.38	120.77	0.99	120.80	0.99
0:18:07	263.62	384.38	120.77	0.99	120.80	0.99
0:18:17	263.62	384.38	120.77	0.99	120.80	0.99
0:18:27	263.60	384.38	120.78	0.99	120.82	0.99
0:18:37	263.67	384.38	120.71	0.99	120.75	0.99
0:18:47	263.64	384.38	120.74	0.99	120.77	0.99
0:18:57	263.74	384.38	120.65	0.99	120.68	0.99
0:19:07	263.71	384.38	120.67	0.99	120.71	0.99
0:19:17	263.75	384.38	120.63	0.99	120.67	0.99
0:19:27	263.80	384.38	120.58	0.99	120.62	0.99
0:19:37	263.82	384.38	120.57	0.99	120.60	0.99
0:19:47	263.84	384.38	120.54	0.99	120.58	0.99
0:19:57	263.82	384.38	120.57	0.99	120.60	0.99
0:20:07	263.84	384.38	120.54	0.99	120.58	0.99
0:20:17	263.91	384.38	120.47	0.99	120.51	0.99
0:20:27	263.88	384.38	120.50	0.99	120.54	0.99
0:20:37	263.91	384.38	120.47	0.99	120.51	0.99
0:20:47	263.91	384.38	120.47	0.99	120.51	0.99
0:20:57	263.93	384.38	120.45	0.99	120.48	0.99
0:21:07	263.95	384.38	120.43	0.99	120.47	0.99
0:21:17	263.98	384.38	120.41	0.99	120.44	0.99
0:21:27	264.02	384.38	120.37	0.99	120.40	0.99
0:21:37	264.02	384.38	120.37	0.99	120.40	0.99
0:21:47	264.02	384.38	120.37	0.99	120.40	0.99
0:21:57	264.04	384.38	120.34	0.99	120.38	0.99
0:22:07	264.08	384.38	120.30	0.99	120.34	0.99
0:22:17	264.08	384.38	120.30	0.99	120.34	0.99
0:22:27	264.11	384.38	120.28	0.99	120.31	0.99
0:22:37	264.13	384.38	120.25	0.99	120.29	0.99
0:22:47	264.15	384.38	120.24	0.99	120.27	0.99
0:22:57	264.15	384.38	120.24	0.99	120.27	0.99
0:23:07	264.24	384.38	120.14	0.99	120.18	0.99
0:23:17	264.20	384.38	120.18	0.99	120.22	0.99
0:23:27	264.21	384.38	120.17	0.99	120.21	0.99
0:23:37	264.28	384.38	120.10	0.98	120.14	0.99
0:23:47	264.27	384.38	120.12	0.98	120.15	0.99
0:23:57	264.31	384.38	120.08	0.98	120.11	0.98
0:24:07	264.35	384.38	120.04	0.98	120.07	0.98
0:24:17	264.41	384.38	119.97	0.98	120.01	0.98
0:24:27	264.40	384.38	119.98	0.98	120.02	0.98
0:24:37	264.41	384.38	119.97	0.98	120.01	0.98
0:24:47	264.44	384.38	119.95	0.98	119.98	0.98

0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:24:57	264.48	384.38	119.91	0.98	119.94	0.98
0:25:07	264.46	384.38	119.92	0.98	119.95	0.98
0:25:17	264.53	384.38	119.85	0.98	119.89	0.98
0:25:27	264.48	384.38	119.91	0.98	119.94	0.98
0:25:37	264.53	384.38	119.85	0.98	119.89	0.98
0:25:47	264.57	384.38	119.81	0.98	119.85	0.98
0:25:57	264.57	384.38	119.81	0.98	119.85	0.98
0:26:07	264.60	384.38	119.79	0.98	119.82	0.98
0:26:17	264.60	384.38	119.79	0.98	119.82	0.98
0:26:27	264.64	384.38	119.75	0.98	119.78	0.98
0:26:37	264.66	384.38	119.72	0.98	119.76	0.98
0:26:47	264.68	384.38	119.71	0.98	119.74	0.98
0:26:57	264.70	384.38	119.68	0.98	119.72	0.98
0:27:07	264.74	384.38	119.64	0.98	119.68	0.98
0:27:17	264.74	384.38	119.64	0.98	119.68	0.98
0:27:27	264.77	384.38	119.61	0.98	119.65	0.98
0:27:37	264.81	384.38	119.57	0.98	119.61	0.98
0:27:47	264.81	384.38	119.57	0.98	119.61	0.98
0:27:57	264.80	384.38	119.59	0.98	119.62	0.98
0:28:07	264.86	384.38	119.52	0.98	119.56	0.98
0:28:17	264.83	384.38	119.55	0.98	119.59	0.98
0:28:27	264.86	384.38	119.52	0.98	119.56	0.98
0:28:37	264.87	384.38	119.51	0.98	119.55	0.98
0:28:47	264.86	384.38	119.52	0.98	119.56	0.98
0:28:57	264.94	384.38	119.44	0.98	119.48	0.98
0:29:07	264.94	384.38	119.44	0.98	119.48	0.98
0:29:17	264.97	384.38	119.42	0.98	119.45	0.98
0:29:27	264.99	384.38	119.39	0.98	119.43	0.98
0:29:37	265.03	384.38	119.35	0.98	119.39	0.98
0:30:07	265.01	384.38	119.38	0.98	119.41	0.98
0:30:37	265.10	384.38	119.28	0.98	119.32	0.98
0:31:07	265.13	384.38	119.26	0.98	119.29	0.98
0:31:37	265.14	384.38	119.24	0.98	119.28	0.98
0:32:07	265.20	384.38	119.18	0.98	119.21	0.98
0:32:37	265.27	384.38	119.11	0.98	119.15	0.98
0:33:07	265.32	384.38	119.06	0.98	119.10	0.98
0:33:37	265.34	384.38	119.04	0.98	119.08	0.98
0:34:07	265.50	384.38	118.89	0.97	118.92	0.98
0:34:37	265.50	384.38	118.89	0.97	118.92	0.98
0:35:07	265.50	384.38	118.89	0.97	118.92	0.98
0:35:37	265.59	384.38	118.79	0.97	118.83	0.97
0:36:07	265.63	384.38	118.75	0.97	118.79	0.97
0:36:37	265.69	384.38	118.69	0.97	118.72	0.97
0:37:07	265.79	384.38	118.60	0.97	118.63	0.97
0:37:37	265.85	384.38	118.53	0.97	118.57	0.97
0:38:07	265.92	384.38	118.46	0.97	118.50	0.97
0:38:37	265.96	384.38	118.42	0.97	118.46	0.97
0:39:07	266.05	384.38	118.33	0.97	118.37	0.97
0:39:37	266.12	384.38	118.26	0.97	118.30	0.97
0:40:07	266.16	384.38	118.23	0.97	118.26	0.97

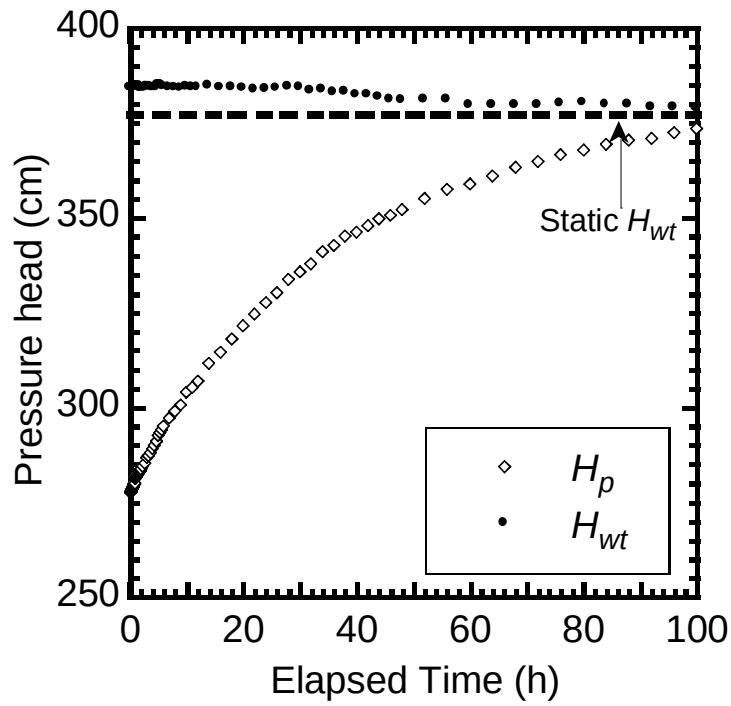
0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:40:37	266.25	384.38	118.13	0.97	118.17	0.97
0:41:07	266.26	384.38	118.12	0.97	118.16	0.97
0:41:37	266.33	384.38	118.05	0.97	118.09	0.97
0:42:07	266.42	384.38	117.96	0.97	118.00	0.97
0:42:37	266.46	384.38	117.92	0.97	117.96	0.97
0:43:07	266.55	384.38	117.83	0.97	117.86	0.97
0:43:37	266.62	384.38	117.76	0.97	117.80	0.97
0:44:07	266.65	384.38	117.74	0.97	117.77	0.97
0:44:37	266.69	384.38	117.70	0.96	117.73	0.97
0:45:07	266.79	384.38	117.59	0.96	117.63	0.96
0:45:37	266.85	384.38	117.54	0.96	117.57	0.96
0:46:07	266.91	384.38	117.47	0.96	117.51	0.96
0:46:37	266.99	384.38	117.39	0.96	117.43	0.96
0:47:07	267.02	384.38	117.37	0.96	117.40	0.96
0:47:37	267.06	384.38	117.33	0.96	117.36	0.96
0:48:07	267.12	384.38	117.26	0.96	117.30	0.96
0:48:37	267.18	384.38	117.21	0.96	117.24	0.96
0:49:07	267.24	384.38	117.14	0.96	117.18	0.96
0:49:37	267.31	384.38	117.07	0.96	117.11	0.96
0:50:07	267.35	384.38	117.03	0.96	117.07	0.96
0:50:37	267.44	384.38	116.94	0.96	116.98	0.96
0:51:07	267.48	384.38	116.90	0.96	116.94	0.96
0:51:37	267.55	384.38	116.84	0.96	116.87	0.96
0:52:07	267.61	384.38	116.77	0.96	116.81	0.96
0:52:37	267.64	384.38	116.74	0.96	116.78	0.96
0:53:07	267.68	384.38	116.70	0.96	116.74	0.96
0:53:37	267.77	384.38	116.61	0.96	116.65	0.96
0:54:07	267.78	384.38	116.60	0.96	116.63	0.96
0:54:37	267.78	384.38	116.60	0.96	116.63	0.96
0:55:07	267.88	384.38	116.50	0.96	116.54	0.96
0:55:37	267.92	384.38	116.47	0.95	116.50	0.96
0:56:07	267.97	384.38	116.41	0.95	116.45	0.95
0:56:37	268.04	384.38	116.35	0.95	116.38	0.95
0:57:07	268.10	384.38	116.28	0.95	116.32	0.95
0:57:37	268.17	384.38	116.21	0.95	116.25	0.95
0:58:07	268.18	384.38	116.20	0.95	116.24	0.95
0:58:37	268.23	384.38	116.15	0.95	116.18	0.95
0:59:07	268.30	384.38	116.08	0.95	116.12	0.95
0:59:37	268.37	384.38	116.02	0.95	116.05	0.95
1:00:37	268.50	384.38	115.88	0.95	115.92	0.95
1:01:37	268.58	384.38	115.80	0.95	115.84	0.95
1:02:37	268.71	384.38	115.67	0.95	115.71	0.95
1:03:37	268.76	384.38	115.62	0.95	115.66	0.95
1:04:37	268.87	384.38	115.51	0.95	115.55	0.95
1:05:37	269.00	384.38	115.38	0.95	115.42	0.95
1:06:37	269.09	384.38	115.29	0.95	115.32	0.95
1:07:37	269.11	384.38	115.28	0.95	115.31	0.95
1:08:37	269.24	384.38	115.14	0.94	115.18	0.94
1:09:37	269.31	384.38	115.08	0.94	115.11	0.94
1:10:37	269.40	384.38	114.98	0.94	115.02	0.94

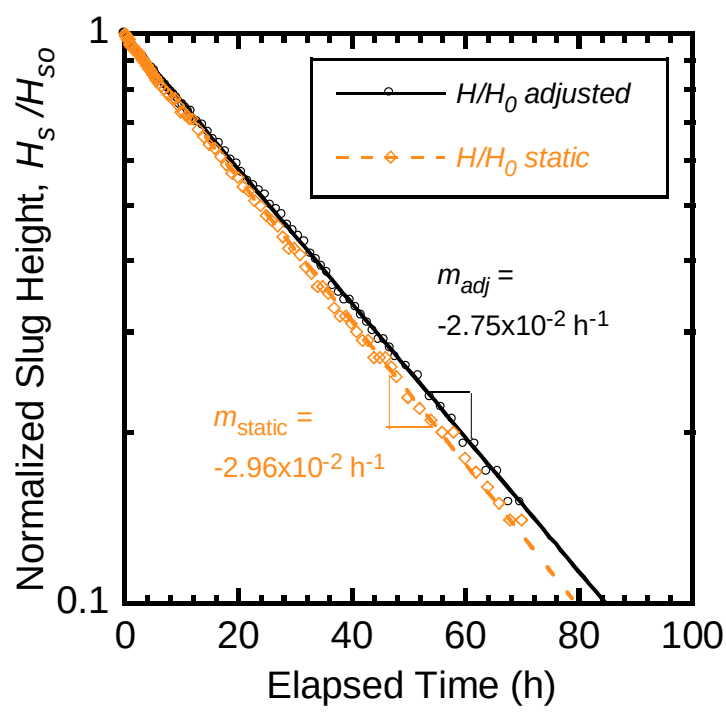
0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:11:37	269.49	384.38	114.89	0.94	114.93	0.94
1:12:37	269.50	384.38	114.88	0.94	114.91	0.94
1:13:37	269.66	384.29	114.62	0.94	114.76	0.94
1:14:37	269.73	384.29	114.56	0.94	114.69	0.94
1:15:37	269.80	384.29	114.49	0.94	114.62	0.94
1:16:37	269.93	384.29	114.36	0.94	114.49	0.94
1:17:37	269.99	384.29	114.29	0.94	114.43	0.94
1:18:37	270.13	384.29	114.16	0.94	114.29	0.94
1:19:37	270.17	384.29	114.12	0.94	114.25	0.94
1:20:37	270.23	384.29	114.05	0.94	114.19	0.94
1:21:37	270.30	384.29	113.99	0.93	114.12	0.94
1:22:37	270.42	384.29	113.87	0.93	114.00	0.93
1:23:37	270.52	384.29	113.76	0.93	113.90	0.93
1:24:37	270.59	384.29	113.70	0.93	113.83	0.93
1:25:37	270.68	384.29	113.60	0.93	113.74	0.93
1:26:37	270.79	384.29	113.50	0.93	113.63	0.93
1:27:37	270.92	384.29	113.37	0.93	113.50	0.93
1:28:37	270.02	384.29	114.27	0.94	114.40	0.94
1:29:37	270.10	384.29	114.19	0.94	114.32	0.94
1:30:37	270.19	384.29	114.09	0.94	114.23	0.94
1:31:37	270.28	384.29	114.00	0.93	114.13	0.94
1:32:37	270.36	384.29	113.92	0.93	114.05	0.94
1:33:37	270.48	384.29	113.80	0.93	113.94	0.93
1:34:37	270.55	384.29	113.74	0.93	113.87	0.93
1:35:37	270.66	384.29	113.63	0.93	113.76	0.93
1:36:37	270.75	384.29	113.54	0.93	113.67	0.93
1:37:37	270.81	384.29	113.47	0.93	113.60	0.93
1:38:37	270.89	384.29	113.39	0.93	113.53	0.93
1:39:37	271.01	384.29	113.27	0.93	113.41	0.93
1:40:37	271.08	384.29	113.21	0.93	113.34	0.93
1:41:37	271.19	384.29	113.10	0.93	113.23	0.93
1:42:37	271.22	384.29	113.06	0.93	113.20	0.93
1:43:37	271.29	384.09	112.80	0.92	113.13	0.93
1:44:37	271.38	384.09	112.70	0.92	113.04	0.93
1:45:37	271.42	384.09	112.66	0.92	113.00	0.93
1:46:37	271.49	384.09	112.60	0.92	112.93	0.93
1:47:37	271.55	384.09	112.53	0.92	112.86	0.93
1:48:37	271.65	384.09	112.44	0.92	112.77	0.92
1:49:37	271.74	384.09	112.35	0.92	112.68	0.92
1:50:37	271.75	384.09	112.33	0.92	112.67	0.92
1:51:37	271.87	384.09	112.22	0.92	112.55	0.92
1:52:37	271.91	384.09	112.18	0.92	112.51	0.92
1:53:37	271.98	384.09	112.11	0.92	112.44	0.92
1:54:37	272.07	384.09	112.02	0.92	112.35	0.92
1:55:37	272.18	384.09	111.91	0.92	112.24	0.92
1:56:37	272.22	384.09	111.87	0.92	112.20	0.92
1:57:37	272.28	384.09	111.80	0.92	112.14	0.92
1:58:37	272.40	384.09	111.69	0.92	112.02	0.92
1:59:37	272.44	384.09	111.65	0.92	111.98	0.92
2:09:37	273.14	384.09	110.95	0.91	111.28	0.91

0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:19:37	273.90	384.09	110.19	0.90	110.52	0.91
2:29:37	274.53	384.09	109.56	0.90	109.89	0.90
2:39:37	275.39	384.09	108.70	0.89	109.03	0.89
2:49:37	276.12	384.09	107.97	0.89	108.30	0.89
2:59:37	276.82	384.09	107.27	0.88	107.60	0.88
3:09:37	277.31	384.09	106.78	0.88	107.11	0.88
3:19:37	278.24	383.89	105.65	0.87	106.18	0.87
3:29:37	278.67	383.74	105.07	0.86	105.75	0.87
3:39:37	279.57	383.74	104.17	0.85	104.85	0.86
3:49:37	280.22	383.74	103.52	0.85	104.20	0.85
3:59:37	280.90	383.74	102.85	0.84	103.52	0.85
4:09:37	281.75	383.74	101.99	0.84	102.66	0.84
4:19:37	282.26	383.74	101.49	0.83	102.16	0.84
4:29:37	282.95	383.50	100.55	0.82	101.47	0.83
4:39:37	283.48	383.50	100.02	0.82	100.94	0.83
4:49:37	284.14	383.50	99.36	0.81	100.28	0.82
4:59:37	284.75	383.50	98.75	0.81	99.67	0.82
5:09:37	285.31	383.50	98.18	0.80	99.11	0.81
5:19:37	285.90	383.50	97.60	0.80	98.52	0.81
5:29:37	286.40	383.39	96.99	0.80	98.02	0.80
5:39:37	286.89	383.39	96.50	0.79	97.53	0.80
5:49:37	287.40	383.39	95.98	0.79	97.02	0.80
5:59:37	288.12	383.39	95.27	0.78	96.30	0.79
6:29:37	289.83	383.57	93.75	0.77	94.59	0.78
6:59:37	291.69	383.57	91.88	0.75	92.73	0.76
7:29:37	292.55	382.91	90.36	0.74	91.87	0.75
7:59:37	294.45	382.91	88.45	0.73	89.97	0.74
8:29:37	296.41	383.33	86.92	0.71	88.01	0.72
8:59:37	298.12	383.33	85.21	0.70	86.30	0.71
9:29:37	298.99	382.73	83.74	0.69	85.43	0.70
9:59:37	300.70	382.73	82.03	0.67	83.72	0.69
10:29:37	301.40	382.73	81.33	0.67	83.02	0.68
10:59:37	302.84	382.73	79.89	0.65	81.58	0.67
11:29:37	303.58	382.12	78.54	0.64	80.84	0.66
11:59:37	305.05	381.49	76.44	0.63	79.37	0.65
12:59:37	308.14	381.73	73.59	0.60	76.27	0.63
13:59:37	310.82	381.73	70.91	0.58	73.60	0.60
14:59:37	313.11	381.86	68.75	0.56	71.31	0.58
15:59:37	314.63	381.86	67.23	0.55	69.79	0.57
16:59:37	317.23	381.06	63.82	0.52	67.19	0.55
17:59:37	319.01	381.33	62.32	0.51	65.41	0.54
18:59:37	321.89	380.75	58.86	0.48	62.53	0.51
19:59:37	323.36	381.07	57.72	0.47	61.06	0.50
20:59:37	325.73	380.46	54.74	0.45	58.69	0.48
21:59:37	327.55	380.54	52.99	0.43	56.87	0.47
22:59:37	329.39	380.43	51.04	0.42	55.03	0.45
23:59:37	330.93	380.04	49.11	0.40	53.49	0.44
24:59:37	332.75	380.04	47.29	0.39	51.67	0.42
25:59:37	333.84	380.35	46.52	0.38	50.58	0.41
26:59:37	335.20	380.05	44.85	0.37	49.22	0.40

0+80.0	5.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
27:59:37	337.33	380.79	43.46	0.36	47.09	0.39
28:59:37	338.81	380.56	41.74	0.34	45.61	0.37
29:59:37	339.59	380.39	40.80	0.33	44.83	0.37
30:59:37	340.80	380.39	39.59	0.32	43.62	0.36
31:59:37	341.19	379.44	38.25	0.31	43.22	0.35
32:59:37	342.66	379.72	37.06	0.30	41.76	0.34
33:59:37	343.32	378.99	35.67	0.29	41.10	0.34
34:59:37	344.63	379.03	34.39	0.28	39.79	0.33
35:59:37	345.75	379.16	33.41	0.27	38.67	0.32
36:59:37	346.99	379.19	32.20	0.26	37.43	0.31
37:59:37	347.03	379.19	32.16	0.26	37.39	0.31
38:59:37	348.79	379.02	30.23	0.25	35.63	0.29
39:59:37	349.65	378.85	29.21	0.24	34.77	0.29
40:59:37	350.36	378.85	28.49	0.23	34.06	0.28
41:59:37	351.32	378.86	27.54	0.23	33.10	0.27
42:59:37	351.47	378.14	26.67	0.22	32.95	0.27
43:59:37	352.76	378.31	25.55	0.21	31.66	0.26
44:59:37	353.76	378.28	24.52	0.20	30.66	0.25
45:59:37	354.53	378.17	23.64	0.19	29.89	0.25
46:59:37	354.94	377.78	22.84	0.19	29.48	0.24
47:59:37	356.16	378.36	22.20	0.18	28.26	0.23
49:59:37	357.67	378.54	20.87	0.17	26.75	0.22
51:59:37	359.38	378.71	19.34	0.16	25.04	0.21
53:59:37	360.13	378.03	17.90	0.15	24.29	0.20
55:59:37	361.78	378.32	16.53	0.14	22.64	0.19
57:59:37	363.11	378.20	15.09	0.12	21.31	0.17
59:59:37	364.11	378.02	13.91	0.11	20.31	0.17
61:59:37	365.05	377.66	12.61	0.10	19.37	0.16
63:59:37	366.43	378.09	11.66	0.10	17.99	0.15
65:59:37	367.20	377.92	10.73	0.09	17.22	0.14
67:59:37	368.14	377.63	9.50	0.08	16.28	0.13
69:59:37	368.85	377.24	8.39	0.07	15.57	0.13
71:59:37	370.31	384.42	14.11	0.12	14.11	0.12

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	2
Well #	9	**Test Type**	Rate of Rise
Start Date of Test	8/11/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	377.3
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	106.7/99.5
k_{adj} (cm/s)	2.26E-07	**k_{static} (cm/s)**	2.43E-07





0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	277.75	384.42	106.67	1.00	99.53	1.00
0:00:10	277.72	384.42	106.70	1.00	99.56	1.00
0:00:20	277.75	384.42	106.67	1.00	99.53	1.00
0:00:30	277.77	384.42	106.65	1.00	99.51	1.00
0:00:40	277.77	384.42	106.65	1.00	99.51	1.00
0:00:50	277.79	384.42	106.63	1.00	99.50	1.00
0:01:00	277.79	384.42	106.63	1.00	99.50	1.00
0:01:10	277.81	384.42	106.61	1.00	99.47	1.00
0:01:20	277.84	384.42	106.58	1.00	99.44	1.00
0:01:30	277.84	384.42	106.58	1.00	99.44	1.00
0:01:40	277.87	384.42	106.55	1.00	99.42	1.00
0:01:50	277.91	384.42	106.51	1.00	99.38	1.00
0:02:00	277.84	384.42	106.58	1.00	99.44	1.00
0:02:10	277.87	384.42	106.55	1.00	99.42	1.00
0:02:20	277.91	384.42	106.51	1.00	99.38	1.00
0:02:30	277.87	384.42	106.55	1.00	99.42	1.00
0:02:40	277.91	384.42	106.51	1.00	99.38	1.00
0:02:50	277.93	384.42	106.49	1.00	99.35	1.00
0:03:00	277.93	384.42	106.49	1.00	99.35	1.00
0:03:10	277.93	384.42	106.49	1.00	99.35	1.00
0:03:20	277.94	384.42	106.47	1.00	99.34	1.00
0:03:30	277.94	384.42	106.47	1.00	99.34	1.00
0:03:40	277.94	384.42	106.47	1.00	99.34	1.00
0:03:50	277.97	384.42	106.45	1.00	99.31	1.00
0:04:00	278.00	384.42	106.42	1.00	99.28	1.00
0:04:10	278.04	384.42	106.38	1.00	99.24	1.00
0:04:20	278.04	384.42	106.38	1.00	99.24	1.00
0:04:30	278.01	384.42	106.41	1.00	99.27	1.00
0:04:40	278.04	384.42	106.38	1.00	99.24	1.00
0:04:50	278.04	384.42	106.38	1.00	99.24	1.00
0:05:00	278.06	384.42	106.36	1.00	99.22	1.00
0:05:10	278.08	384.42	106.34	1.00	99.20	1.00
0:05:20	278.06	384.42	106.36	1.00	99.22	1.00
0:05:30	278.08	384.42	106.34	1.00	99.20	1.00
0:05:40	278.10	384.42	106.32	1.00	99.18	1.00
0:05:50	278.14	384.42	106.28	1.00	99.14	1.00
0:06:00	278.14	384.42	106.28	1.00	99.14	1.00
0:06:10	278.17	384.42	106.25	1.00	99.11	1.00
0:06:20	278.17	384.42	106.25	1.00	99.11	1.00
0:06:30	278.20	384.42	106.22	1.00	99.09	1.00
0:06:40	278.17	384.42	106.25	1.00	99.11	1.00
0:06:50	278.20	384.42	106.22	1.00	99.09	1.00
0:07:00	278.20	384.42	106.22	1.00	99.09	1.00
0:07:10	278.21	384.42	106.21	1.00	99.07	1.00
0:07:20	278.21	384.42	106.21	1.00	99.07	1.00
0:07:30	278.24	384.42	106.18	1.00	99.04	1.00
0:07:40	278.24	384.42	106.18	1.00	99.04	1.00
0:07:50	278.25	384.42	106.17	1.00	99.03	0.99
0:08:00	278.25	384.42	106.17	1.00	99.03	0.99
0:08:10	278.28	384.42	106.14	1.00	99.01	0.99

0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	278.28	384.42	106.14	1.00	99.01	0.99
0:08:30	278.30	384.42	106.12	0.99	98.98	0.99
0:08:40	278.32	384.42	106.10	0.99	98.97	0.99
0:08:50	278.32	384.42	106.10	0.99	98.97	0.99
0:09:00	278.34	384.42	106.08	0.99	98.94	0.99
0:09:10	278.34	384.42	106.08	0.99	98.94	0.99
0:09:20	278.32	384.42	106.10	0.99	98.97	0.99
0:09:30	278.38	384.42	106.04	0.99	98.90	0.99
0:09:40	278.37	384.42	106.05	0.99	98.91	0.99
0:09:50	278.37	384.42	106.05	0.99	98.91	0.99
0:10:00	278.41	384.42	106.01	0.99	98.87	0.99
0:10:10	278.43	384.42	105.99	0.99	98.85	0.99
0:10:20	278.41	384.42	106.01	0.99	98.87	0.99
0:10:30	278.43	384.42	105.99	0.99	98.85	0.99
0:10:40	278.45	384.42	105.97	0.99	98.83	0.99
0:10:50	278.45	384.42	105.97	0.99	98.83	0.99
0:11:00	278.45	384.42	105.97	0.99	98.83	0.99
0:11:10	278.47	384.42	105.95	0.99	98.81	0.99
0:11:20	278.47	384.42	105.95	0.99	98.81	0.99
0:11:30	278.50	384.42	105.92	0.99	98.78	0.99
0:11:40	278.50	384.42	105.92	0.99	98.78	0.99
0:11:50	278.51	384.42	105.90	0.99	98.77	0.99
0:12:00	278.54	384.42	105.88	0.99	98.74	0.99
0:12:10	278.51	384.42	105.90	0.99	98.77	0.99
0:12:20	278.51	384.42	105.90	0.99	98.77	0.99
0:12:30	278.51	384.42	105.90	0.99	98.77	0.99
0:12:40	278.54	384.42	105.88	0.99	98.74	0.99
0:12:50	278.54	384.42	105.88	0.99	98.74	0.99
0:13:00	278.57	384.42	105.85	0.99	98.71	0.99
0:13:10	278.57	384.42	105.85	0.99	98.71	0.99
0:13:20	278.61	384.42	105.81	0.99	98.68	0.99
0:13:30	278.61	384.42	105.81	0.99	98.68	0.99
0:13:40	278.61	384.42	105.81	0.99	98.68	0.99
0:13:50	278.61	384.42	105.81	0.99	98.68	0.99
0:14:00	278.63	384.42	105.79	0.99	98.65	0.99
0:14:10	278.63	384.42	105.79	0.99	98.65	0.99
0:14:20	278.61	384.42	105.81	0.99	98.68	0.99
0:14:30	278.63	384.42	105.79	0.99	98.65	0.99
0:14:40	278.65	384.42	105.77	0.99	98.64	0.99
0:14:50	278.65	384.42	105.77	0.99	98.64	0.99
0:15:00	278.65	384.42	105.77	0.99	98.64	0.99
0:15:10	278.67	384.42	105.75	0.99	98.61	0.99
0:15:20	278.70	384.42	105.72	0.99	98.58	0.99
0:15:30	278.70	384.42	105.72	0.99	98.58	0.99
0:15:40	278.70	384.42	105.72	0.99	98.58	0.99
0:15:50	278.70	384.42	105.72	0.99	98.58	0.99
0:16:00	278.71	384.42	105.71	0.99	98.57	0.99
0:16:10	278.74	384.42	105.68	0.99	98.54	0.99
0:16:20	278.76	384.42	105.65	0.99	98.52	0.99
0:16:30	278.78	384.42	105.64	0.99	98.50	0.99

0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	278.78	384.42	105.64	0.99	98.50	0.99
0:16:50	278.78	384.42	105.64	0.99	98.50	0.99
0:17:00	278.83	384.42	105.59	0.99	98.45	0.99
0:17:10	278.83	384.42	105.59	0.99	98.45	0.99
0:17:20	278.85	384.42	105.57	0.99	98.44	0.99
0:17:30	278.87	384.42	105.55	0.99	98.41	0.99
0:17:40	278.83	384.42	105.59	0.99	98.45	0.99
0:17:50	278.87	384.42	105.55	0.99	98.41	0.99
0:18:00	278.91	384.42	105.51	0.99	98.37	0.99
0:18:10	278.90	384.42	105.52	0.99	98.38	0.99
0:18:20	278.94	384.42	105.48	0.99	98.34	0.99
0:18:30	278.96	384.42	105.46	0.99	98.32	0.99
0:18:40	278.94	384.42	105.48	0.99	98.34	0.99
0:18:50	278.98	384.42	105.44	0.99	98.30	0.99
0:19:00	278.98	384.42	105.44	0.99	98.30	0.99
0:19:10	278.98	384.42	105.44	0.99	98.30	0.99
0:19:20	279.00	384.42	105.42	0.99	98.28	0.99
0:19:30	279.00	384.42	105.42	0.99	98.28	0.99
0:19:40	279.03	384.42	105.39	0.99	98.25	0.99
0:19:50	279.03	384.42	105.39	0.99	98.25	0.99
0:20:20	279.03	384.42	105.39	0.99	98.25	0.99
0:20:50	279.04	384.42	105.38	0.99	98.24	0.99
0:21:20	279.04	384.42	105.38	0.99	98.24	0.99
0:21:50	279.10	384.42	105.32	0.99	98.19	0.99
0:22:20	279.07	384.42	105.35	0.99	98.21	0.99
0:22:50	279.10	384.42	105.32	0.99	98.19	0.99
0:23:20	279.16	384.42	105.26	0.99	98.12	0.99
0:23:50	279.18	384.42	105.24	0.99	98.11	0.99
0:24:20	279.20	384.42	105.22	0.99	98.08	0.99
0:24:50	279.24	384.42	105.18	0.99	98.04	0.98
0:25:20	279.24	384.42	105.18	0.99	98.04	0.98
0:25:50	279.31	384.42	105.11	0.99	97.97	0.98
0:26:20	279.31	384.42	105.11	0.99	97.97	0.98
0:26:50	279.33	384.42	105.09	0.99	97.95	0.98
0:27:20	279.37	384.42	105.05	0.98	97.91	0.98
0:27:50	279.40	384.42	105.02	0.98	97.88	0.98
0:28:20	279.44	384.42	104.98	0.98	97.84	0.98
0:28:50	279.44	384.42	104.98	0.98	97.84	0.98
0:29:20	279.51	384.42	104.91	0.98	97.77	0.98
0:29:50	279.53	384.42	104.89	0.98	97.75	0.98
0:30:20	279.53	384.42	104.89	0.98	97.75	0.98
0:30:50	279.56	384.42	104.86	0.98	97.72	0.98
0:31:20	279.56	384.42	104.86	0.98	97.72	0.98
0:31:50	279.60	384.42	104.82	0.98	97.68	0.98
0:32:20	279.63	384.42	104.79	0.98	97.66	0.98
0:32:50	279.64	384.42	104.78	0.98	97.64	0.98
0:33:20	279.64	384.42	104.78	0.98	97.64	0.98
0:33:50	279.66	384.42	104.76	0.98	97.62	0.98
0:34:20	279.69	384.42	104.73	0.98	97.59	0.98
0:34:50	279.70	384.42	104.72	0.98	97.58	0.98

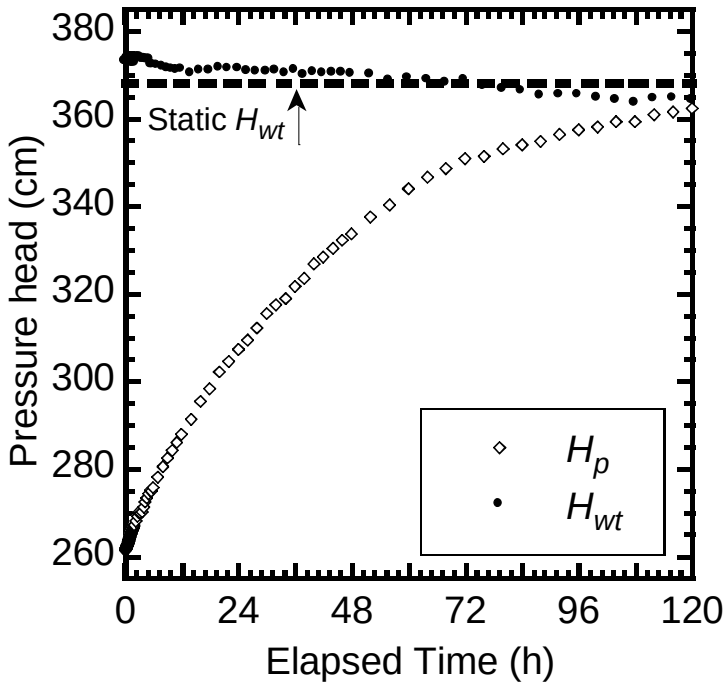
0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:35:20	279.76	384.42	104.66	0.98	97.52	0.98
0:35:50	279.82	384.42	104.60	0.98	97.46	0.98
0:36:20	279.84	384.42	104.58	0.98	97.44	0.98
0:36:50	279.84	384.42	104.58	0.98	97.44	0.98
0:37:20	279.90	384.42	104.52	0.98	97.38	0.98
0:37:50	279.96	384.42	104.46	0.98	97.33	0.98
0:38:20	279.97	384.42	104.45	0.98	97.31	0.98
0:38:50	279.99	384.42	104.42	0.98	97.29	0.98
0:39:20	280.02	384.42	104.40	0.98	97.26	0.98
0:39:50	280.02	384.42	104.40	0.98	97.26	0.98
0:40:20	280.06	384.42	104.36	0.98	97.22	0.98
0:40:50	280.03	384.42	104.38	0.98	97.25	0.98
0:41:20	280.09	384.42	104.33	0.98	97.19	0.98
0:41:50	280.06	384.42	104.36	0.98	97.22	0.98
0:42:20	280.13	384.42	104.29	0.98	97.15	0.98
0:42:50	280.15	384.42	104.27	0.98	97.13	0.98
0:43:20	280.17	384.42	104.25	0.98	97.11	0.98
0:43:50	280.22	384.42	104.20	0.98	97.06	0.98
0:44:20	280.22	384.42	104.20	0.98	97.06	0.98
0:44:50	280.23	384.42	104.19	0.98	97.05	0.98
0:45:20	281.32	384.85	103.54	0.97	95.96	0.96
0:45:50	281.32	384.85	103.54	0.97	95.96	0.96
0:46:20	281.32	384.85	103.54	0.97	95.96	0.96
0:46:50	281.36	384.85	103.50	0.97	95.92	0.96
0:47:20	281.39	384.85	103.47	0.97	95.90	0.96
0:47:50	281.43	384.85	103.43	0.97	95.86	0.96
0:48:20	281.43	384.85	103.43	0.97	95.86	0.96
0:48:50	281.45	384.85	103.40	0.97	95.83	0.96
0:49:20	281.48	384.85	103.38	0.97	95.80	0.96
0:49:50	281.52	384.85	103.34	0.97	95.76	0.96
0:50:50	281.56	384.85	103.30	0.97	95.72	0.96
0:51:50	281.61	384.85	103.24	0.97	95.67	0.96
0:52:50	281.64	384.85	103.22	0.97	95.64	0.96
0:53:50	281.68	384.85	103.18	0.97	95.61	0.96
0:54:50	281.72	384.85	103.14	0.97	95.57	0.96
0:55:50	281.77	384.85	103.09	0.97	95.51	0.96
0:56:50	281.78	384.85	103.07	0.97	95.50	0.96
0:57:50	281.82	384.85	103.03	0.97	95.46	0.96
0:58:50	281.92	384.85	102.94	0.97	95.37	0.96
0:59:50	281.94	384.85	102.91	0.96	95.34	0.96
1:00:50	281.98	384.85	102.87	0.96	95.30	0.96
1:01:50	282.01	384.85	102.85	0.96	95.27	0.96
1:02:50	282.05	384.85	102.81	0.96	95.23	0.96
1:03:50	282.05	384.85	102.81	0.96	95.23	0.96
1:04:50	282.11	384.85	102.74	0.96	95.17	0.96
1:05:50	282.18	384.85	102.67	0.96	95.10	0.96
1:06:50	282.22	384.85	102.64	0.96	95.06	0.96
1:07:50	282.29	384.85	102.57	0.96	95.00	0.95
1:08:50	282.29	384.85	102.57	0.96	95.00	0.95
1:09:50	282.31	384.85	102.54	0.96	94.97	0.95

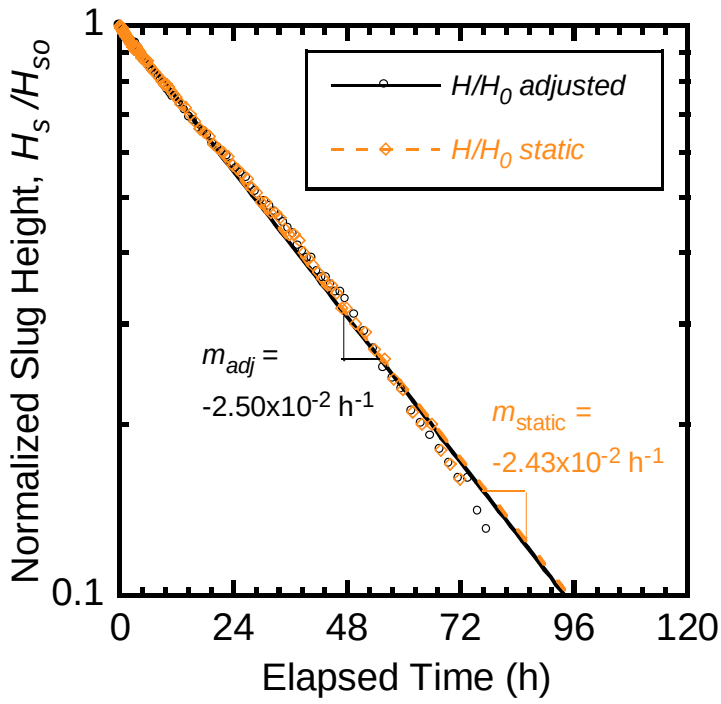
0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:10:50	282.35	384.85	102.50	0.96	94.93	0.95
1:11:50	282.38	384.85	102.48	0.96	94.90	0.95
1:12:50	282.47	384.85	102.38	0.96	94.81	0.95
1:13:50	282.48	384.85	102.37	0.96	94.80	0.95
1:14:50	282.54	384.85	102.32	0.96	94.75	0.95
1:15:50	282.58	384.85	102.28	0.96	94.70	0.95
1:16:50	282.60	384.85	102.25	0.96	94.68	0.95
1:17:50	282.64	384.85	102.21	0.96	94.64	0.95
1:18:50	282.62	384.85	102.24	0.96	94.66	0.95
1:19:50	282.68	384.85	102.17	0.96	94.60	0.95
1:20:50	282.71	384.85	102.15	0.96	94.57	0.95
1:21:50	282.74	384.85	102.12	0.96	94.55	0.95
1:22:50	282.81	384.85	102.04	0.96	94.47	0.95
1:23:50	282.91	384.85	101.95	0.96	94.37	0.95
1:24:50	282.88	384.85	101.97	0.96	94.40	0.95
1:25:50	282.97	384.85	101.88	0.96	94.31	0.95
1:26:50	283.04	384.85	101.82	0.95	94.24	0.95
1:27:50	283.07	384.85	101.79	0.95	94.22	0.95
1:28:50	283.10	384.85	101.75	0.95	94.18	0.95
1:29:50	283.17	384.85	101.68	0.95	94.11	0.95
1:30:50	283.21	384.85	101.64	0.95	94.07	0.95
1:31:50	283.26	384.85	101.59	0.95	94.02	0.94
1:32:50	283.30	384.85	101.55	0.95	93.98	0.94
1:33:50	283.37	384.85	101.48	0.95	93.91	0.94
1:34:50	283.38	384.85	101.47	0.95	93.90	0.94
1:35:50	283.48	384.85	101.38	0.95	93.81	0.94
1:36:50	283.50	384.85	101.35	0.95	93.78	0.94
1:37:50	283.57	384.85	101.29	0.95	93.71	0.94
1:38:50	283.57	384.85	101.29	0.95	93.71	0.94
1:39:50	283.59	384.85	101.26	0.95	93.69	0.94
1:40:50	283.63	384.85	101.22	0.95	93.65	0.94
1:41:50	283.67	384.85	101.18	0.95	93.61	0.94
1:42:50	283.73	384.85	101.13	0.95	93.55	0.94
1:43:50	283.77	384.85	101.09	0.95	93.52	0.94
1:44:50	283.83	384.85	101.02	0.95	93.45	0.94
1:45:50	283.87	384.10	100.23	0.94	93.41	0.94
1:46:50	283.90	384.10	100.20	0.94	93.38	0.94
1:47:50	283.94	384.10	100.16	0.94	93.34	0.94
1:48:50	283.97	384.10	100.14	0.94	93.32	0.94
1:49:50	284.03	384.10	100.07	0.94	93.25	0.94
1:59:50	284.44	384.10	99.66	0.93	92.84	0.93
2:09:50	284.80	384.10	99.30	0.93	92.48	0.93
2:19:50	285.09	384.10	99.01	0.93	92.19	0.93
2:29:50	285.49	384.10	98.61	0.92	91.79	0.92
2:39:50	285.83	384.10	98.27	0.92	91.45	0.92
2:49:50	287.08	384.69	97.61	0.92	90.21	0.91
2:59:50	287.27	384.69	97.41	0.91	90.01	0.90
3:09:50	287.54	384.69	97.15	0.91	89.74	0.90
3:19:50	287.94	384.69	96.75	0.91	89.35	0.90
3:29:50	288.28	384.69	96.41	0.90	89.00	0.89

0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:39:50	288.68	384.69	96.01	0.90	88.61	0.89
3:49:50	289.30	384.38	95.08	0.89	87.98	0.88
3:59:50	289.83	384.38	94.55	0.89	87.45	0.88
4:09:50	290.29	384.38	94.09	0.88	86.99	0.87
4:19:50	290.70	384.38	93.68	0.88	86.58	0.87
4:29:50	291.30	384.38	93.08	0.87	85.99	0.86
4:39:50	291.43	384.38	92.95	0.87	85.85	0.86
4:49:50	292.82	385.16	92.34	0.87	84.46	0.85
4:59:50	293.11	385.16	92.05	0.86	84.17	0.85
5:09:50	293.57	385.16	91.58	0.86	83.71	0.84
5:19:50	293.85	385.16	91.31	0.86	83.43	0.84
5:29:50	294.34	385.16	90.82	0.85	82.94	0.83
5:39:50	294.84	385.16	90.31	0.85	82.44	0.83
5:49:50	295.24	384.82	89.58	0.84	82.04	0.82
6:19:50	296.24	384.82	88.57	0.83	81.04	0.81
6:49:50	297.33	384.56	87.23	0.82	79.95	0.80
7:19:50	298.18	384.56	86.39	0.81	79.11	0.79
7:49:50	299.19	384.37	85.18	0.80	78.09	0.78
8:19:50	300.19	384.37	84.18	0.79	77.09	0.77
8:49:50	300.95	384.21	83.26	0.78	76.33	0.77
9:19:50	302.40	384.21	81.82	0.77	74.89	0.75
9:49:50	304.21	384.70	80.49	0.75	73.07	0.73
10:19:50	305.00	384.70	79.70	0.75	72.28	0.73
10:49:50	305.53	384.47	78.93	0.74	71.75	0.72
11:19:50	306.14	384.47	78.33	0.73	71.14	0.71
11:49:50	307.11	384.47	77.36	0.73	70.17	0.71
12:49:50	309.45	384.20	74.75	0.70	67.83	0.68
13:49:50	311.86	384.95	73.10	0.69	65.42	0.66
14:49:50	313.37	384.64	71.28	0.67	63.92	0.64
15:49:50	314.82	384.43	69.61	0.65	62.46	0.63
16:49:50	316.24	384.50	68.27	0.64	61.04	0.61
17:49:50	318.24	384.56	66.33	0.62	59.05	0.59
18:49:50	320.13	384.50	64.37	0.60	57.15	0.57
19:49:50	321.81	384.25	62.44	0.59	55.47	0.56
20:49:50	323.05	384.26	61.21	0.57	54.23	0.54
21:49:50	324.76	383.93	59.18	0.55	52.52	0.53
22:49:50	326.73	384.54	57.81	0.54	50.55	0.51
23:49:50	327.91	384.03	56.12	0.53	49.37	0.50
24:49:50	329.59	384.59	55.00	0.52	47.69	0.48
25:49:50	330.37	384.20	53.83	0.50	46.91	0.47
26:49:50	331.97	383.95	51.98	0.49	45.31	0.46
27:49:50	333.90	384.65	50.75	0.48	43.38	0.44
28:49:50	335.03	384.43	49.41	0.46	42.25	0.42
29:49:50	335.97	384.48	48.51	0.45	41.31	0.42
30:49:50	336.61	383.44	46.83	0.44	40.67	0.41
31:49:50	338.10	383.52	45.43	0.43	39.19	0.39
32:49:50	339.50	383.73	44.23	0.41	37.78	0.38
33:49:50	341.18	383.81	42.63	0.40	36.10	0.36
34:49:50	341.50	382.92	41.42	0.39	35.79	0.36
35:49:50	342.87	383.11	40.24	0.38	34.41	0.35

0+80.0	5.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
36:49:50	344.38	383.16	38.78	0.36	32.90	0.33
37:49:50	345.40	383.26	37.86	0.35	31.88	0.32
38:49:50	345.52	382.26	36.75	0.34	31.76	0.32
39:49:50	346.43	382.43	36.00	0.34	30.85	0.31
40:49:50	347.77	382.84	35.08	0.33	29.52	0.30
41:49:50	348.15	382.31	34.17	0.32	29.13	0.29
42:49:50	348.69	381.69	33.00	0.31	28.59	0.29
43:49:50	349.99	381.87	31.88	0.30	27.29	0.27
44:49:50	350.86	382.13	31.27	0.29	26.42	0.27
45:49:50	350.79	381.31	30.51	0.29	26.49	0.27
46:49:50	351.83	381.27	29.44	0.28	25.46	0.26
47:49:50	352.43	381.07	28.63	0.27	24.85	0.25
49:49:50	354.37	381.74	27.37	0.26	22.91	0.23
51:49:50	355.20	381.36	26.16	0.25	22.08	0.22
53:49:50	356.13	381.08	24.96	0.23	21.15	0.21
55:49:50	357.63	381.35	23.72	0.22	19.65	0.20
57:49:50	357.69	379.85	22.17	0.21	19.60	0.20
59:49:50	359.04	379.82	20.78	0.19	18.25	0.18
61:49:50	360.03	379.83	19.80	0.19	17.25	0.17
63:49:50	361.15	379.73	18.57	0.17	16.13	0.16
65:49:50	362.36	379.96	17.60	0.17	14.92	0.15
67:49:50	363.42	379.75	16.33	0.15	13.87	0.14
69:49:50	363.64	379.45	15.81	0.15	13.64	0.14
71:49:50	364.98	379.78	14.81	0.14	12.30	0.12
73:49:50	366.18	380.06	13.88	0.13	11.10	0.11
75:49:50	366.77	380.17	13.40	0.13	10.52	0.11
77:49:50	367.49	380.37	12.88	0.12	9.79	0.10
79:49:50	368.02	380.33	12.31	0.12	9.26	0.09
81:49:50	369.00	379.97	10.97	0.10	8.28	0.08
83:49:50	369.54	379.93	10.38	0.10	7.74	0.08
85:49:50	369.64	379.31	9.67	0.09	7.64	0.08
87:49:50	370.63	379.88	9.24	0.09	6.65	0.07
89:49:50	371.24	379.92	8.68	0.08	6.04	0.06
91:49:50	371.11	379.19	8.08	0.08	6.17	0.06
93:49:50	371.78	378.76	6.98	0.07	5.50	0.06
95:49:50	372.62	379.15	6.54	0.06	4.66	0.05
97:49:50	372.85	378.82	5.97	0.06	4.43	0.04
99:49:50	373.74	379.05	5.31	0.05	3.54	0.04
101:49:50	373.54	379.01	5.46	0.05	3.74	0.04
103:49:50	373.61	378.33	4.72	0.04	3.67	0.04
105:49:50	374.04	377.90	3.85	0.04	3.24	0.03
107:49:50	374.94	377.96	3.01	0.03	2.34	0.02
109:49:50	375.14	378.00	2.85	0.03	2.14	0.02
111:49:50	375.35	377.54	2.19	0.02	1.93	0.02
113:49:50	375.38	377.27	1.89	0.02	1.90	0.02
115:49:50	375.71	376.93	1.22	0.01	1.57	0.02
117:49:50	375.80	376.67	0.86	0.01	1.48	0.01

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	3
Well #	9	**Test Type**	Rate of Rise
Start Date of Test	8/16/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	368.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	111.6/106.5
k_{adj} (cm/s)	2.05E-07	**k_{static} (cm/s)**	1.99E-07





0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	261.57	373.20	111.64	1.00	106.54	1.00
0:00:10	261.54	373.20	111.66	1.00	106.56	1.00
0:00:20	261.54	373.20	111.66	1.00	106.56	1.00
0:00:30	261.57	373.20	111.64	1.00	106.54	1.00
0:00:40	261.59	373.20	111.61	1.00	106.51	1.00
0:00:50	261.59	373.20	111.61	1.00	106.51	1.00
0:01:00	261.61	373.20	111.60	1.00	106.50	1.00
0:01:10	261.63	373.20	111.57	1.00	106.47	1.00
0:01:20	261.66	373.20	111.54	1.00	106.44	1.00
0:01:30	261.63	373.20	111.57	1.00	106.47	1.00
0:01:40	261.66	373.20	111.54	1.00	106.44	1.00
0:01:50	261.69	373.20	111.52	1.00	106.42	1.00
0:02:00	261.69	373.20	111.52	1.00	106.42	1.00
0:02:10	261.70	373.20	111.50	1.00	106.40	1.00
0:02:20	261.69	373.20	111.52	1.00	106.42	1.00
0:02:30	261.70	373.20	111.50	1.00	106.40	1.00
0:02:40	261.73	373.20	111.48	1.00	106.38	1.00
0:02:50	261.75	373.20	111.45	1.00	106.35	1.00
0:03:00	261.77	373.20	111.44	1.00	106.34	1.00
0:03:10	261.75	373.20	111.45	1.00	106.35	1.00
0:03:20	261.77	373.20	111.44	1.00	106.34	1.00
0:03:30	261.77	373.20	111.44	1.00	106.34	1.00
0:03:40	261.79	373.20	111.41	1.00	106.31	1.00
0:03:50	261.79	373.20	111.41	1.00	106.31	1.00
0:04:00	261.82	373.20	111.38	1.00	106.29	1.00
0:04:10	261.82	373.20	111.38	1.00	106.29	1.00
0:04:20	261.86	373.20	111.35	1.00	106.25	1.00
0:04:30	261.86	373.20	111.35	1.00	106.25	1.00
0:04:40	261.88	373.20	111.32	1.00	106.22	1.00
0:04:50	261.86	373.20	111.35	1.00	106.25	1.00
0:05:00	261.88	373.20	111.32	1.00	106.22	1.00
0:05:10	261.90	373.20	111.31	1.00	106.21	1.00
0:05:20	261.90	373.20	111.31	1.00	106.21	1.00
0:05:30	261.92	373.20	111.28	1.00	106.18	1.00
0:05:40	261.92	373.20	111.28	1.00	106.18	1.00
0:05:50	261.92	373.20	111.28	1.00	106.18	1.00
0:06:00	261.96	373.20	111.24	1.00	106.14	1.00
0:06:10	261.95	373.20	111.25	1.00	106.15	1.00
0:06:20	261.96	373.20	111.24	1.00	106.14	1.00
0:06:30	261.96	373.20	111.24	1.00	106.14	1.00
0:06:40	261.99	373.20	111.21	1.00	106.11	1.00
0:06:50	261.99	373.20	111.21	1.00	106.11	1.00
0:07:00	262.02	373.20	111.19	1.00	106.09	1.00
0:07:10	261.99	373.20	111.21	1.00	106.11	1.00
0:07:20	262.03	373.20	111.17	1.00	106.07	1.00
0:07:30	262.02	373.20	111.19	1.00	106.09	1.00
0:07:40	262.03	373.20	111.17	1.00	106.07	1.00
0:07:50	262.03	373.20	111.17	1.00	106.07	1.00
0:08:00	262.06	373.20	111.15	1.00	106.05	1.00
0:08:10	262.06	373.20	111.15	1.00	106.05	1.00

0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	262.06	373.20	111.15	1.00	106.05	1.00
0:08:30	262.10	373.20	111.11	1.00	106.01	1.00
0:08:40	262.08	373.20	111.12	1.00	106.02	1.00
0:08:50	262.10	373.20	111.11	1.00	106.01	1.00
0:09:00	262.08	373.20	111.12	1.00	106.02	1.00
0:09:10	262.12	373.20	111.08	1.00	105.98	0.99
0:09:20	262.10	373.20	111.11	1.00	106.01	1.00
0:09:30	262.10	373.20	111.11	1.00	106.01	1.00
0:09:40	262.12	373.20	111.08	1.00	105.98	0.99
0:09:50	262.15	373.20	111.05	0.99	105.95	0.99
0:10:00	262.15	373.20	111.05	0.99	105.95	0.99
0:10:10	262.15	373.20	111.05	0.99	105.95	0.99
0:10:20	262.16	373.20	111.04	0.99	105.94	0.99
0:10:30	262.16	373.20	111.04	0.99	105.94	0.99
0:10:40	262.16	373.20	111.04	0.99	105.94	0.99
0:10:50	262.22	373.20	110.99	0.99	105.89	0.99
0:11:00	262.16	373.20	111.04	0.99	105.94	0.99
0:11:10	262.19	373.20	111.01	0.99	105.92	0.99
0:11:20	262.19	373.20	111.01	0.99	105.92	0.99
0:11:30	262.22	373.20	110.99	0.99	105.89	0.99
0:11:40	262.26	373.20	110.95	0.99	105.85	0.99
0:11:50	262.23	373.20	110.97	0.99	105.88	0.99
0:12:00	262.26	373.20	110.95	0.99	105.85	0.99
0:12:10	262.28	373.20	110.92	0.99	105.82	0.99
0:12:20	262.28	373.20	110.92	0.99	105.82	0.99
0:12:30	262.26	373.20	110.95	0.99	105.85	0.99
0:12:40	262.28	373.20	110.92	0.99	105.82	0.99
0:12:50	262.29	373.20	110.91	0.99	105.81	0.99
0:13:00	262.29	373.20	110.91	0.99	105.81	0.99
0:13:10	262.32	373.20	110.88	0.99	105.78	0.99
0:13:20	262.35	373.20	110.86	0.99	105.76	0.99
0:13:30	262.32	373.20	110.88	0.99	105.78	0.99
0:13:40	262.35	373.20	110.86	0.99	105.76	0.99
0:13:50	262.39	373.20	110.82	0.99	105.72	0.99
0:14:00	262.36	373.20	110.84	0.99	105.74	0.99
0:14:10	262.36	373.20	110.84	0.99	105.74	0.99
0:14:20	262.36	373.20	110.84	0.99	105.74	0.99
0:14:30	262.36	373.20	110.84	0.99	105.74	0.99
0:14:40	262.41	373.20	110.79	0.99	105.69	0.99
0:14:50	262.41	373.20	110.79	0.99	105.69	0.99
0:15:00	262.39	373.20	110.82	0.99	105.72	0.99
0:15:10	262.41	373.20	110.79	0.99	105.69	0.99
0:15:20	262.43	373.20	110.78	0.99	105.68	0.99
0:15:30	262.45	373.20	110.75	0.99	105.65	0.99
0:15:40	262.45	373.20	110.75	0.99	105.65	0.99
0:15:50	262.49	373.20	110.71	0.99	105.61	0.99
0:16:00	262.48	373.20	110.72	0.99	105.62	0.99
0:16:10	262.49	373.20	110.71	0.99	105.61	0.99
0:16:20	262.49	373.20	110.71	0.99	105.61	0.99
0:16:30	262.48	373.20	110.72	0.99	105.62	0.99

0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	262.49	373.20	110.71	0.99	105.61	0.99
0:16:50	262.49	373.20	110.71	0.99	105.61	0.99
0:17:00	262.52	373.20	110.68	0.99	105.59	0.99
0:17:10	262.52	373.20	110.68	0.99	105.59	0.99
0:17:20	262.55	373.20	110.66	0.99	105.56	0.99
0:17:30	262.55	373.20	110.66	0.99	105.56	0.99
0:17:40	262.55	373.20	110.66	0.99	105.56	0.99
0:17:50	262.55	373.20	110.66	0.99	105.56	0.99
0:18:00	262.55	373.20	110.66	0.99	105.56	0.99
0:18:10	262.59	373.20	110.62	0.99	105.52	0.99
0:18:20	262.56	373.20	110.64	0.99	105.55	0.99
0:18:30	262.55	373.20	110.66	0.99	105.56	0.99
0:18:40	262.59	373.20	110.62	0.99	105.52	0.99
0:18:50	262.59	373.20	110.62	0.99	105.52	0.99
0:19:00	262.59	373.20	110.62	0.99	105.52	0.99
0:19:10	262.61	373.20	110.59	0.99	105.49	0.99
0:19:20	262.61	373.20	110.59	0.99	105.49	0.99
0:19:30	262.61	373.20	110.59	0.99	105.49	0.99
0:19:40	262.62	373.20	110.58	0.99	105.48	0.99
0:19:50	262.65	373.20	110.55	0.99	105.45	0.99
0:20:20	262.65	373.20	110.55	0.99	105.45	0.99
0:20:50	262.65	373.20	110.55	0.99	105.45	0.99
0:21:20	262.65	373.20	110.55	0.99	105.45	0.99
0:21:50	262.72	373.20	110.48	0.99	105.39	0.99
0:22:20	262.69	373.20	110.51	0.99	105.41	0.99
0:22:50	262.72	373.20	110.48	0.99	105.39	0.99
0:23:20	262.75	373.20	110.46	0.99	105.36	0.99
0:23:50	262.81	373.20	110.39	0.99	105.29	0.99
0:24:20	262.82	373.20	110.38	0.99	105.28	0.99
0:24:50	262.82	373.20	110.38	0.99	105.28	0.99
0:25:20	262.88	373.20	110.33	0.99	105.23	0.99
0:25:50	262.92	373.20	110.29	0.99	105.19	0.99
0:26:20	262.96	373.20	110.25	0.99	105.15	0.99
0:26:50	262.96	373.20	110.25	0.99	105.15	0.99
0:27:20	262.96	373.20	110.25	0.99	105.15	0.99
0:27:50	262.98	373.20	110.22	0.99	105.12	0.99
0:28:20	263.01	373.20	110.19	0.99	105.10	0.99
0:28:50	263.02	373.20	110.18	0.99	105.08	0.99
0:29:20	263.02	373.79	110.76	0.99	105.08	0.99
0:29:50	263.05	373.79	110.74	0.99	105.06	0.99
0:30:20	263.11	373.79	110.67	0.99	104.99	0.99
0:30:50	263.14	373.79	110.64	0.99	104.96	0.99
0:31:20	263.18	373.79	110.60	0.99	104.92	0.98
0:31:50	263.21	373.79	110.58	0.99	104.90	0.98
0:32:20	263.25	373.79	110.54	0.99	104.86	0.98
0:32:50	263.25	373.79	110.54	0.99	104.86	0.98
0:33:20	263.31	373.79	110.47	0.99	104.79	0.98
0:33:50	263.35	373.79	110.43	0.99	104.75	0.98
0:34:20	263.35	373.79	110.43	0.99	104.75	0.98
0:34:50	263.42	373.79	110.37	0.99	104.68	0.98

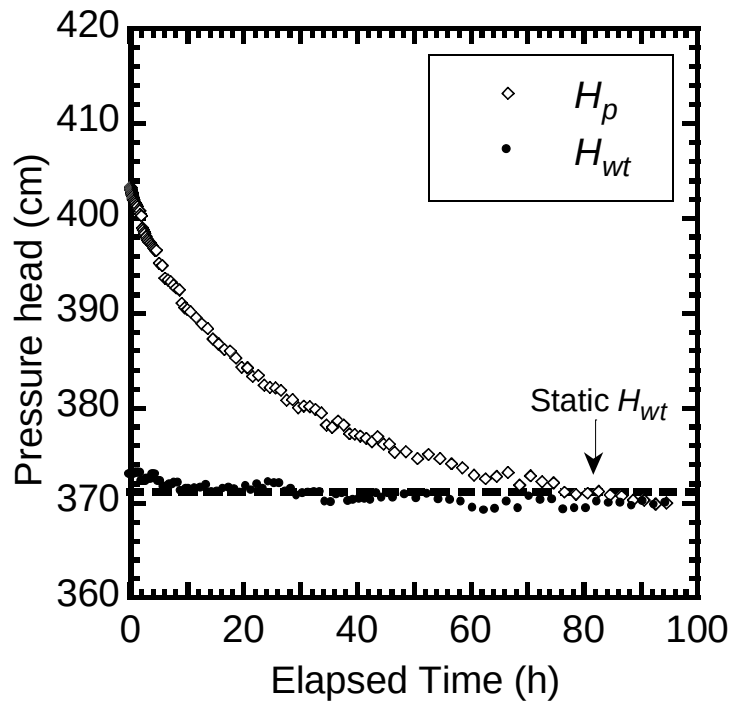
0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:35:20	263.42	373.79	110.37	0.99	104.68	0.98
0:35:50	263.47	373.79	110.31	0.99	104.63	0.98
0:36:20	263.51	373.79	110.27	0.99	104.59	0.98
0:36:50	263.55	373.79	110.23	0.99	104.55	0.98
0:37:20	263.60	373.79	110.18	0.99	104.50	0.98
0:37:50	263.62	373.79	110.17	0.99	104.49	0.98
0:38:20	263.62	373.79	110.17	0.99	104.49	0.98
0:38:50	263.64	373.79	110.14	0.99	104.46	0.98
0:39:20	263.68	373.79	110.10	0.99	104.42	0.98
0:39:50	263.68	373.79	110.10	0.99	104.42	0.98
0:40:20	263.74	373.79	110.05	0.99	104.37	0.98
0:40:50	263.78	373.79	110.01	0.99	104.33	0.98
0:41:20	263.78	373.79	110.01	0.99	104.33	0.98
0:41:50	263.82	373.79	109.97	0.99	104.29	0.98
0:42:20	263.84	373.79	109.94	0.98	104.26	0.98
0:42:50	263.88	373.79	109.90	0.98	104.22	0.98
0:43:20	263.88	373.79	109.90	0.98	104.22	0.98
0:43:50	263.91	373.79	109.88	0.98	104.20	0.98
0:44:20	263.93	373.79	109.85	0.98	104.17	0.98
0:44:50	263.95	373.79	109.84	0.98	104.16	0.98
0:45:20	264.00	373.79	109.78	0.98	104.10	0.98
0:45:50	264.02	373.79	109.77	0.98	104.09	0.98
0:46:20	264.08	373.79	109.70	0.98	104.02	0.98
0:46:50	264.13	373.79	109.65	0.98	103.97	0.98
0:47:20	264.13	373.79	109.65	0.98	103.97	0.98
0:47:50	264.17	373.79	109.61	0.98	103.93	0.98
0:48:20	264.20	373.79	109.59	0.98	103.90	0.98
0:48:50	264.21	373.79	109.57	0.98	103.89	0.98
0:49:20	264.28	373.79	109.51	0.98	103.83	0.97
0:49:50	264.28	373.79	109.51	0.98	103.83	0.97
0:50:50	264.31	373.79	109.48	0.98	103.80	0.97
0:51:50	264.37	373.79	109.41	0.98	103.73	0.97
0:52:50	264.40	373.79	109.39	0.98	103.71	0.97
0:53:50	264.44	373.79	109.35	0.98	103.67	0.97
0:54:50	264.48	373.79	109.31	0.98	103.63	0.97
0:55:50	264.57	373.79	109.21	0.98	103.53	0.97
0:56:50	264.61	373.79	109.18	0.98	103.50	0.97
0:57:50	264.66	373.79	109.12	0.98	103.44	0.97
0:58:50	264.73	373.79	109.06	0.98	103.37	0.97
0:59:50	264.77	373.79	109.02	0.98	103.34	0.97
1:00:50	264.83	373.79	108.95	0.98	103.27	0.97
1:01:50	264.87	373.79	108.91	0.98	103.23	0.97
1:02:50	264.94	373.79	108.85	0.98	103.16	0.97
1:03:50	265.01	373.79	108.78	0.97	103.10	0.97
1:04:50	265.03	373.79	108.75	0.97	103.07	0.97
1:05:50	265.10	373.79	108.69	0.97	103.01	0.97
1:06:50	265.13	373.79	108.66	0.97	102.98	0.97
1:07:50	265.16	373.79	108.62	0.97	102.94	0.97
1:08:50	265.20	373.79	108.58	0.97	102.90	0.97
1:09:50	265.23	373.79	108.55	0.97	102.87	0.97

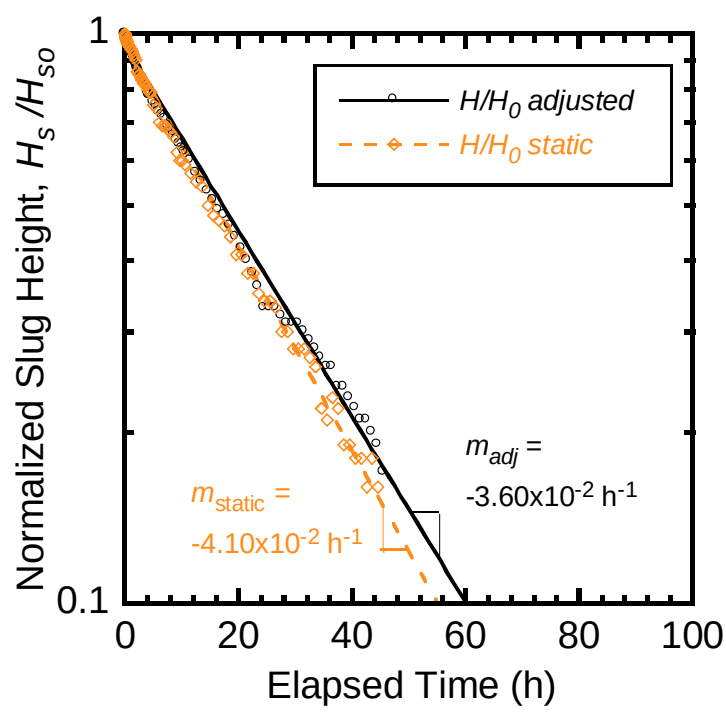
0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:10:50	265.30	373.79	108.49	0.97	102.81	0.96
1:11:50	265.39	373.79	108.39	0.97	102.71	0.96
1:12:50	265.43	373.79	108.36	0.97	102.67	0.96
1:13:50	265.46	373.79	108.33	0.97	102.65	0.96
1:14:50	265.47	373.79	108.32	0.97	102.63	0.96
1:15:50	265.54	373.79	108.25	0.97	102.57	0.96
1:16:50	265.56	373.79	108.22	0.97	102.54	0.96
1:17:50	265.59	373.79	108.20	0.97	102.52	0.96
1:18:50	265.65	373.79	108.13	0.97	102.45	0.96
1:19:50	265.72	373.79	108.06	0.97	102.38	0.96
1:20:50	265.80	373.79	107.98	0.97	102.30	0.96
1:21:50	265.85	373.79	107.93	0.97	102.25	0.96
1:22:50	265.92	373.79	107.87	0.97	102.19	0.96
1:23:50	265.96	373.79	107.83	0.97	102.15	0.96
1:24:50	266.03	373.79	107.76	0.97	102.08	0.96
1:25:50	266.09	373.79	107.69	0.96	102.01	0.96
1:26:50	266.18	373.79	107.60	0.96	101.92	0.96
1:27:50	266.22	373.79	107.56	0.96	101.88	0.96
1:28:50	266.25	373.79	107.54	0.96	101.85	0.96
1:29:50	266.32	372.72	106.41	0.95	101.79	0.96
1:30:50	266.36	372.72	106.37	0.95	101.75	0.96
1:31:50	266.36	372.72	106.37	0.95	101.75	0.96
1:32:50	266.42	372.72	106.30	0.95	101.68	0.95
1:33:50	266.46	372.72	106.26	0.95	101.64	0.95
1:34:50	266.51	372.72	106.21	0.95	101.59	0.95
1:35:50	266.53	372.72	106.20	0.95	101.58	0.95
1:36:50	266.65	372.72	106.08	0.95	101.46	0.95
1:37:50	266.66	372.72	106.06	0.95	101.44	0.95
1:38:50	266.73	372.72	106.00	0.95	101.38	0.95
1:39:50	266.79	372.72	105.93	0.95	101.31	0.95
1:40:50	266.85	372.72	105.88	0.95	101.26	0.95
1:41:50	266.89	372.72	105.84	0.95	101.22	0.95
1:42:50	266.91	372.72	105.81	0.95	101.19	0.95
1:43:50	266.95	372.72	105.77	0.95	101.15	0.95
1:44:50	267.02	372.72	105.71	0.95	101.09	0.95
1:45:50	267.06	372.72	105.67	0.95	101.05	0.95
1:46:50	267.12	372.72	105.60	0.95	100.98	0.95
1:47:50	267.18	372.72	105.55	0.95	100.93	0.95
1:48:50	267.24	372.72	105.48	0.94	100.86	0.95
1:49:50	267.28	372.72	105.44	0.94	100.82	0.95
1:59:50	267.72	372.72	105.00	0.94	100.39	0.94
2:09:50	268.25	372.72	104.48	0.94	99.86	0.94
2:19:50	268.78	372.72	103.95	0.93	99.33	0.93
2:29:50	269.24	374.06	104.82	0.94	98.86	0.93
2:39:50	269.73	374.06	104.33	0.93	98.38	0.92
2:49:50	270.19	374.06	103.86	0.93	97.91	0.92
2:59:50	270.68	374.06	103.38	0.93	97.42	0.91
3:09:50	270.10	374.06	103.96	0.93	98.00	0.92
3:19:50	270.85	374.06	103.20	0.92	97.25	0.91
3:29:50	270.34	373.71	103.37	0.93	97.77	0.92

0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:39:50	270.85	373.71	102.86	0.92	97.25	0.91
3:49:50	271.40	373.71	102.31	0.92	96.71	0.91
3:59:50	271.99	373.71	101.72	0.91	96.11	0.90
4:09:50	272.51	373.71	101.20	0.91	95.60	0.90
4:19:50	272.98	373.71	100.73	0.90	95.12	0.89
4:29:50	273.47	373.55	100.08	0.90	94.63	0.89
4:39:50	273.95	373.55	99.61	0.89	94.16	0.88
4:49:50	274.40	373.55	99.16	0.89	93.71	0.88
4:59:50	274.70	373.55	98.85	0.89	93.40	0.88
5:09:50	275.14	373.55	98.41	0.88	92.96	0.87
5:19:50	275.72	373.55	97.83	0.88	92.38	0.87
5:29:50	275.10	372.43	97.33	0.87	93.01	0.87
5:39:50	275.47	372.43	96.96	0.87	92.64	0.87
5:49:50	275.87	372.43	96.56	0.86	92.24	0.87
6:19:50	277.20	372.43	95.23	0.85	90.90	0.85
6:49:50	278.30	372.19	93.89	0.84	89.80	0.84
7:19:50	279.62	372.19	92.57	0.83	88.48	0.83
7:49:50	280.64	371.93	91.29	0.82	87.46	0.82
8:19:50	281.70	371.93	90.23	0.81	86.40	0.81
8:49:50	282.64	371.53	88.89	0.80	85.47	0.80
9:19:50	283.46	371.53	88.07	0.79	84.65	0.79
9:49:50	284.29	371.32	87.03	0.78	83.81	0.79
10:19:50	285.13	371.32	86.19	0.77	82.98	0.78
10:49:50	286.16	371.13	84.97	0.76	81.95	0.77
11:19:50	286.86	371.13	84.27	0.75	81.24	0.76
11:49:50	288.05	371.26	83.21	0.75	80.05	0.75
12:49:50	290.23	371.45	81.22	0.73	77.87	0.73
13:49:50	291.49	370.36	78.87	0.71	76.62	0.72
14:49:50	293.14	370.21	77.06	0.69	74.96	0.70
15:49:50	295.54	371.01	75.48	0.68	72.57	0.68
16:49:50	297.66	371.58	73.92	0.66	70.45	0.66
17:49:50	298.41	371.01	72.60	0.65	69.69	0.65
18:49:50	300.30	371.38	71.08	0.64	67.80	0.64
19:49:50	302.28	371.72	69.44	0.62	65.83	0.62
20:49:50	302.98	370.99	68.02	0.61	65.13	0.61
21:49:50	304.70	371.39	66.70	0.60	63.41	0.60
22:49:50	305.44	370.84	65.40	0.59	62.67	0.59
23:49:50	307.36	371.40	64.04	0.57	60.75	0.57
24:49:50	308.55	371.07	62.52	0.56	59.56	0.56
25:49:50	309.58	370.87	61.29	0.55	58.52	0.55
26:49:50	310.93	370.72	59.79	0.54	57.17	0.54
27:49:50	312.35	370.70	58.35	0.52	55.76	0.52
28:49:50	313.62	370.45	56.84	0.51	54.49	0.51
29:49:50	315.57	370.83	55.25	0.49	52.53	0.49
30:49:50	315.79	370.44	54.65	0.49	52.32	0.49
31:49:50	317.63	371.07	53.44	0.48	50.48	0.47
32:49:50	318.33	370.65	52.32	0.47	49.78	0.47
33:49:50	319.03	370.34	51.31	0.46	49.08	0.46
34:49:50	321.03	371.05	50.02	0.45	47.08	0.44
35:49:50	321.86	371.12	49.26	0.44	46.24	0.43

0+80.0	5.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
36:49:50	322.48	370.08	47.60	0.43	45.62	0.43
37:49:50	323.70	369.97	46.27	0.41	44.40	0.42
38:49:50	325.67	370.88	45.21	0.40	42.43	0.40
39:49:50	326.88	370.66	43.78	0.39	41.23	0.39
40:49:50	327.47	370.51	43.04	0.39	40.63	0.38
41:49:50	328.54	370.38	41.84	0.37	39.56	0.37
42:49:50	329.40	369.93	40.53	0.36	38.70	0.36
43:49:50	330.55	370.48	39.93	0.36	37.55	0.35
44:49:50	331.10	369.96	38.86	0.35	37.01	0.35
45:49:50	332.35	370.44	38.09	0.34	35.75	0.34
46:49:50	333.67	371.25	37.59	0.34	34.44	0.32
47:49:50	333.78	370.24	36.46	0.33	34.32	0.32
49:49:50	336.03	370.12	34.09	0.31	32.07	0.30
51:49:50	337.62	370.13	32.51	0.29	30.49	0.29
53:49:50	339.72	369.60	29.87	0.27	28.38	0.27
55:49:50	340.48	368.74	28.27	0.25	27.63	0.26
57:49:50	342.42	368.76	26.34	0.24	25.68	0.24
59:49:50	344.05	369.26	25.21	0.23	24.06	0.23
61:49:50	345.30	368.68	23.38	0.21	22.80	0.21
63:49:50	346.72	368.89	22.17	0.20	21.38	0.20
65:49:50	347.04	367.93	20.89	0.19	21.07	0.20
67:49:50	348.66	368.27	19.61	0.18	19.44	0.18
69:49:50	349.64	368.55	18.90	0.17	18.46	0.17
71:49:50	350.97	368.95	17.98	0.16	17.14	0.16
73:49:50	350.32	368.37	18.05	0.16	17.79	0.17
75:49:50	351.46	367.44	15.99	0.14	16.65	0.16
77:49:50	352.74	367.36	14.62	0.13	15.37	0.14
79:49:50	353.23	366.81	13.59	0.12	14.88	0.14
81:49:50	353.41	366.27	12.86	0.12	14.69	0.14
83:49:50	354.11	366.23	12.12	0.11	13.99	0.13
85:49:50	354.79	366.00	11.22	0.10	13.32	0.13
87:49:50	354.97	365.30	10.33	0.09	13.14	0.12
89:49:50	355.98	365.74	9.76	0.09	12.13	0.11
91:49:50	356.49	365.42	8.93	0.08	11.61	0.11
93:49:50	357.23	365.86	8.62	0.08	10.87	0.10
95:49:50	357.62	365.46	7.85	0.07	10.49	0.10
97:49:50	357.27	364.78	7.51	0.07	10.83	0.10
99:49:50	358.28	364.82	6.54	0.06	9.83	0.09
101:49:50	358.74	364.22	5.48	0.05	9.37	0.09
103:49:50	359.35	364.33	4.98	0.04	8.76	0.08
105:49:50	359.70	364.35	4.64	0.04	8.40	0.08
107:49:50	359.47	363.69	4.22	0.04	8.64	0.08
109:49:50	360.25	363.75	3.50	0.03	7.86	0.07
111:49:50	361.03	364.51	3.48	0.03	7.08	0.07
113:49:50	360.53	363.70	3.18	0.03	7.58	0.07
115:49:50	361.61	364.65	3.04	0.03	6.49	0.06
117:49:50	362.50	365.08	2.58	0.02	5.60	0.05

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	4
Well #	9	**Test Type**	Rate of Fall
Start Date of Test	8/25/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	371.2
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	30.5/32.2
k_{adj} (cm/s)	2.95E-07	**k_{static} (cm/s)**	3.37E-07



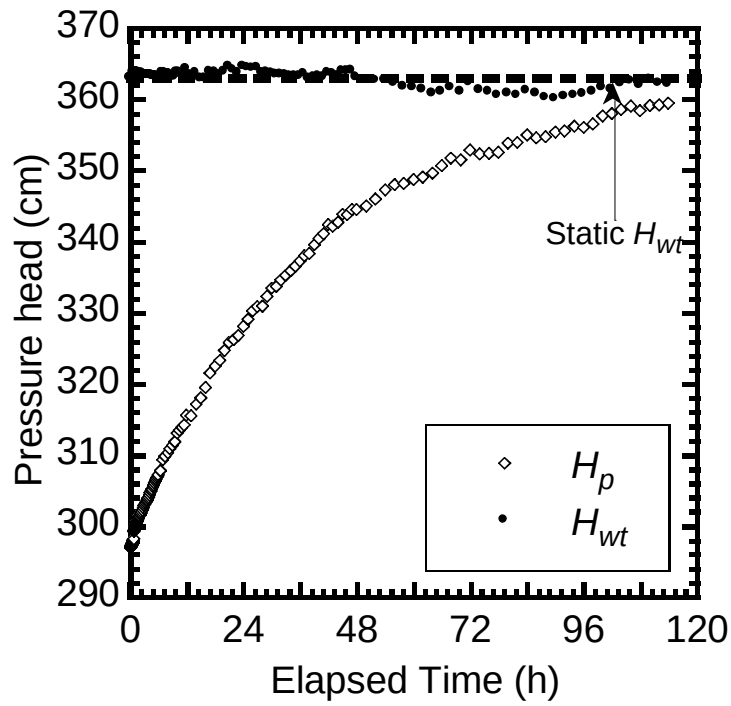


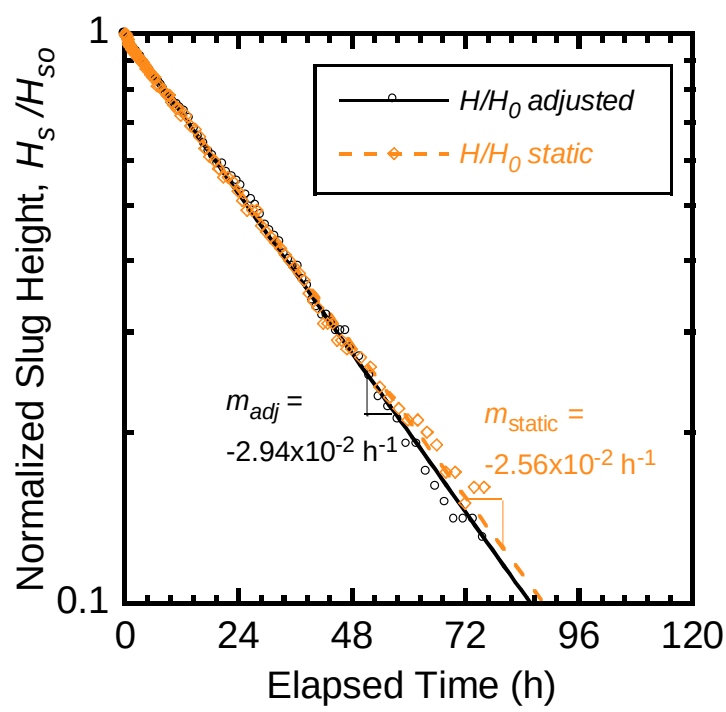
0+80.0	5.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	403.34	372.88	30.46	1.00	32.17	1.00
0:01:00	403.27	372.88	30.39	1.00	32.11	1.00
0:02:00	403.24	372.88	30.36	1.00	32.08	1.00
0:03:00	403.18	372.88	30.30	0.99	32.01	1.00
0:04:00	403.10	372.88	30.22	0.99	31.93	0.99
0:05:00	403.05	372.88	30.17	0.99	31.88	0.99
0:06:00	403.05	372.88	30.17	0.99	31.88	0.99
0:07:00	403.01	372.88	30.13	0.99	31.84	0.99
0:08:00	402.97	372.88	30.09	0.99	31.80	0.99
0:09:00	402.93	372.88	30.05	0.99	31.76	0.99
0:10:00	402.87	372.88	29.99	0.98	31.71	0.99
0:11:00	402.83	372.88	29.96	0.98	31.67	0.98
0:12:00	402.79	372.88	29.92	0.98	31.63	0.98
0:13:00	402.74	372.88	29.86	0.98	31.58	0.98
0:14:00	402.70	372.88	29.82	0.98	31.54	0.98
0:15:00	402.66	372.88	29.78	0.98	31.50	0.98
0:16:00	402.62	372.88	29.74	0.98	31.46	0.98
0:17:00	402.57	372.88	29.69	0.97	31.41	0.98
0:18:00	402.56	372.88	29.68	0.97	31.39	0.98
0:19:00	402.49	372.88	29.61	0.97	31.33	0.97
0:20:00	402.46	372.88	29.58	0.97	31.30	0.97
0:21:00	402.42	372.88	29.54	0.97	31.26	0.97
0:22:00	402.38	372.88	29.50	0.97	31.22	0.97
0:23:00	402.34	372.88	29.47	0.97	31.18	0.97
0:24:00	402.36	372.88	29.48	0.97	31.19	0.97
0:25:00	402.32	372.88	29.44	0.97	31.15	0.97
0:26:00	402.25	372.88	29.37	0.96	31.09	0.97
0:27:00	402.19	372.88	29.31	0.96	31.02	0.96
0:28:00	402.16	372.88	29.28	0.96	31.00	0.96
0:29:00	402.12	372.88	29.24	0.96	30.96	0.96
0:30:00	402.05	372.88	29.17	0.96	30.89	0.96
0:31:00	402.03	372.88	29.15	0.96	30.86	0.96
0:32:00	401.97	372.88	29.09	0.96	30.81	0.96
0:33:00	401.95	372.88	29.07	0.95	30.78	0.96
0:34:00	401.92	372.88	29.04	0.95	30.76	0.96
0:44:00	401.74	372.88	28.86	0.95	30.57	0.95
0:54:00	401.62	372.88	28.74	0.94	30.45	0.95
1:04:00	401.44	373.04	28.41	0.93	30.28	0.94
1:14:00	401.26	373.04	28.22	0.93	30.10	0.94
1:24:00	400.97	373.04	27.93	0.92	29.81	0.93
1:34:00	400.80	373.04	27.76	0.91	29.63	0.92
1:44:00	400.49	373.04	27.46	0.90	29.33	0.91
1:54:00	400.25	373.04	27.22	0.89	29.09	0.90
2:04:00	398.98	372.16	26.83	0.88	27.82	0.86
2:14:00	398.80	372.16	26.64	0.87	27.63	0.86
2:24:00	398.57	372.16	26.42	0.87	27.41	0.85
2:34:00	398.37	372.16	26.22	0.86	27.21	0.85
2:44:00	398.08	372.16	25.93	0.85	29.72	0.84
2:54:00	397.86	372.16	25.70	0.84	26.69	0.83
3:04:00	397.74	372.44	25.30	0.83	26.58	0.83

0+80.0	5.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:14:00	397.53	372.44	25.09	0.82	26.36	0.82
3:24:00	397.42	372.44	24.98	0.82	26.26	0.82
3:34:00	397.39	372.44	24.96	0.82	26.23	0.82
3:44:00	397.25	372.44	24.81	0.81	26.09	0.81
3:54:00	397.06	372.44	24.62	0.81	25.90	0.80
4:04:00	396.89	372.83	24.06	0.79	25.73	0.80
4:14:00	396.71	372.83	23.87	0.78	25.54	0.79
4:24:00	396.64	372.83	23.81	0.78	25.48	0.79
4:34:00	396.59	372.83	23.75	0.78	25.42	0.79
5:04:00	395.29	372.20	23.09	0.76	24.13	0.75
5:34:00	395.05	372.20	22.85	0.75	23.89	0.74
6:04:00	393.71	371.60	22.12	0.73	22.55	0.70
6:34:00	393.48	371.60	21.88	0.72	22.31	0.69
7:04:00	393.34	371.84	21.50	0.71	22.18	0.69
7:34:00	392.95	371.84	21.10	0.69	21.78	0.68
8:04:00	392.63	372.02	20.61	0.68	21.47	0.67
8:34:00	392.47	372.02	20.45	0.67	21.31	0.66
9:04:00	391.04	371.18	19.86	0.65	19.88	0.62
9:34:00	390.60	371.18	19.42	0.64	19.44	0.60
10:04:00	390.39	371.34	19.05	0.63	19.23	0.60
10:34:00	390.15	371.34	18.81	0.62	18.99	0.59
11:34:00	389.58	371.39	18.20	0.60	18.42	0.57
12:34:00	388.87	371.49	17.38	0.57	17.71	0.55
13:34:00	388.39	371.79	16.61	0.55	17.23	0.54
14:34:00	387.27	371.00	16.27	0.53	16.11	0.50
15:34:00	386.77	371.09	15.68	0.51	15.60	0.48
16:34:00	386.18	371.33	14.85	0.49	15.02	0.47
17:34:00	386.04	371.48	14.56	0.48	14.87	0.46
18:34:00	385.27	371.30	13.97	0.46	14.11	0.44
19:34:00	384.32	370.97	13.35	0.44	13.15	0.41
20:34:00	384.28	371.64	12.64	0.42	13.12	0.41
21:34:00	383.34	371.23	12.11	0.40	12.18	0.38
22:34:00	383.45	371.83	11.62	0.38	12.28	0.38
23:34:00	382.45	371.37	11.08	0.36	11.29	0.35
24:34:00	382.16	372.06	10.10	0.33	11.00	0.34
25:34:00	382.11	371.95	10.16	0.33	10.95	0.34
26:34:00	381.85	371.93	9.92	0.33	10.68	0.33
27:34:00	380.84	371.09	9.75	0.32	9.68	0.30
28:34:00	380.90	371.37	9.53	0.31	9.74	0.30
29:34:00	380.02	370.66	9.36	0.31	8.85	0.28
30:34:00	380.26	370.91	9.35	0.31	9.09	0.28
31:34:00	380.18	370.99	9.18	0.30	9.01	0.28
32:34:00	379.85	371.01	8.83	0.29	8.68	0.27
33:34:00	379.48	371.00	8.47	0.28	8.31	0.26
34:34:00	378.24	370.00	8.24	0.27	7.08	0.22
35:34:00	377.98	369.92	8.06	0.26	6.82	0.21
36:34:00	378.63	370.82	7.81	0.26	7.47	0.23
37:34:00	378.22	370.92	7.30	0.24	7.05	0.22
38:34:00	377.29	370.04	7.25	0.24	6.13	0.19
39:34:00	377.24	370.16	7.08	0.23	6.08	0.19

0+80.0	5.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
40:34:00	377.09	370.28	6.82	0.22	5.93	0.18
41:34:00	376.83	370.29	6.53	0.21	5.66	0.18
42:34:00	376.46	370.18	6.28	0.21	5.29	0.16
43:34:00	376.99	370.89	6.10	0.20	5.82	0.18
44:34:00	376.19	370.41	5.79	0.19	5.03	0.16
45:34:00	376.22	370.93	5.29	0.17	5.06	0.16
46:34:00	375.35	370.43	4.91	0.16	4.18	0.13
48:34:00	375.39	370.78	4.61	0.15	4.23	0.13
50:34:00	374.67	370.38	4.29	0.14	3.51	0.11
52:34:00	375.11	370.85	4.26	0.14	3.95	0.12
54:34:00	374.71	370.24	4.48	0.15	3.55	0.11
56:34:00	374.12	370.17	3.95	0.13	2.95	0.09
58:34:00	373.69	370.02	3.67	0.12	2.53	0.08
60:34:00	372.91	369.41	3.50	0.12	1.75	0.05
62:34:00	372.55	369.12	3.43	0.11	1.39	0.04
64:34:00	372.80	369.29	3.51	0.12	1.64	0.05
66:34:00	373.20	370.02	3.18	0.10	2.04	0.06
68:34:00	371.88	369.32	2.56	0.08	0.72	0.02
70:34:00	372.85	370.55	2.30	0.08	1.68	0.05
72:34:00	372.24	370.16	2.08	0.07	1.08	0.03
74:34:00	372.13	370.25	1.88	0.06	0.97	0.03
76:34:00	371.15	369.24	1.91	0.06	-0.01	0.00
78:34:00	370.89	369.35	1.54	0.05	-0.27	-0.01
80:34:00	371.02	369.36	1.67	0.05	-0.14	0.00
82:34:00	371.23	369.98	1.25	0.04	0.07	0.00
84:34:00	370.85	369.83	1.02	0.03	-0.31	-0.01
86:34:00	370.72	369.89	0.83	0.03	-0.45	-0.01
88:34:00	370.28	369.55	0.73	0.02	-0.88	-0.03
90:34:00	370.32	370.09	0.23	0.01	-0.84	-0.03
92:34:00	369.89	369.71	0.18	0.01	-1.28	-0.04
94:34:00	370.02	369.87	0.14	0.00	-1.15	-0.04

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	5
Well #	9	**Test Type**	Rate of Rise
Start Date of Test	8/29/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	363.0
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	65.9
$k_{adj.}$ (cm/s)	2.22E-07	**k_{static} (cm/s)**	2.10E-07





0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	297.07	363.01	65.93	1.00	65.93	1.00
0:00:10	297.10	363.01	65.90	1.00	65.90	1.00
0:00:20	297.07	363.01	65.93	1.00	65.93	1.00
0:00:30	297.10	363.01	65.90	1.00	65.90	1.00
0:00:40	297.07	363.01	65.93	1.00	65.93	1.00
0:00:50	297.13	363.01	65.88	1.00	65.88	1.00
0:01:00	297.10	363.01	65.90	1.00	65.90	1.00
0:01:10	297.13	363.01	65.88	1.00	65.88	1.00
0:01:20	297.17	363.01	65.84	1.00	65.84	1.00
0:01:30	297.14	363.01	65.86	1.00	65.86	1.00
0:01:40	297.14	363.01	65.86	1.00	65.86	1.00
0:01:50	297.13	363.01	65.88	1.00	65.88	1.00
0:02:00	297.17	363.01	65.84	1.00	65.84	1.00
0:02:10	297.17	363.01	65.84	1.00	65.84	1.00
0:02:20	297.18	363.01	65.83	1.00	65.83	1.00
0:02:30	297.14	363.01	65.86	1.00	65.86	1.00
0:02:40	297.17	363.01	65.84	1.00	65.84	1.00
0:02:50	297.18	363.01	65.83	1.00	65.83	1.00
0:03:00	297.18	363.01	65.83	1.00	65.83	1.00
0:03:10	297.23	363.01	65.77	1.00	65.77	1.00
0:03:20	297.21	363.01	65.80	1.00	65.80	1.00
0:03:30	297.23	363.01	65.77	1.00	65.77	1.00
0:03:40	297.25	363.01	65.76	1.00	65.76	1.00
0:03:50	297.25	363.01	65.76	1.00	65.76	1.00
0:04:00	297.23	363.01	65.77	1.00	65.77	1.00
0:04:10	297.23	363.01	65.77	1.00	65.77	1.00
0:04:20	297.25	363.01	65.76	1.00	65.76	1.00
0:04:30	297.23	363.01	65.77	1.00	65.77	1.00
0:04:40	297.27	363.01	65.73	1.00	65.73	1.00
0:04:50	297.25	363.01	65.76	1.00	65.76	1.00
0:05:00	297.27	363.01	65.73	1.00	65.73	1.00
0:05:10	297.27	363.01	65.73	1.00	65.73	1.00
0:05:20	297.27	363.01	65.73	1.00	65.73	1.00
0:05:30	297.27	363.01	65.73	1.00	65.73	1.00
0:05:40	297.25	363.01	65.76	1.00	65.76	1.00
0:05:50	297.27	363.01	65.73	1.00	65.73	1.00
0:06:00	297.27	363.01	65.73	1.00	65.73	1.00
0:06:10	297.34	363.01	65.67	1.00	65.67	1.00
0:06:20	297.30	363.01	65.71	1.00	65.71	1.00
0:06:30	297.30	363.01	65.71	1.00	65.71	1.00
0:06:40	297.27	363.01	65.73	1.00	65.73	1.00
0:06:50	297.27	363.01	65.73	1.00	65.73	1.00
0:07:00	297.33	363.01	65.68	1.00	65.68	1.00
0:07:10	297.33	363.01	65.68	1.00	65.68	1.00
0:07:20	297.30	363.01	65.71	1.00	65.71	1.00
0:07:30	297.30	363.01	65.71	1.00	65.71	1.00
0:07:40	297.30	363.01	65.71	1.00	65.71	1.00
0:07:50	297.30	363.01	65.71	1.00	65.71	1.00
0:08:00	297.34	363.01	65.67	1.00	65.67	1.00
0:08:10	297.30	363.01	65.71	1.00	65.71	1.00

0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	297.34	363.01	65.67	1.00	65.67	1.00
0:08:30	297.33	363.01	65.68	1.00	65.68	1.00
0:08:40	297.33	363.01	65.68	1.00	65.68	1.00
0:08:50	297.33	363.01	65.68	1.00	65.68	1.00
0:09:00	297.37	363.01	65.64	1.00	65.64	1.00
0:09:10	297.33	363.01	65.68	1.00	65.68	1.00
0:09:20	297.38	363.01	65.63	1.00	65.63	1.00
0:09:30	297.34	363.01	65.67	1.00	65.67	1.00
0:09:40	297.37	363.01	65.64	1.00	65.64	1.00
0:09:50	297.38	363.01	65.63	1.00	65.63	1.00
0:10:00	297.38	363.01	65.63	1.00	65.63	1.00
0:10:10	297.37	363.01	65.64	1.00	65.64	1.00
0:10:20	297.38	363.01	65.63	1.00	65.63	1.00
0:10:30	297.41	363.01	65.60	0.99	65.60	0.99
0:10:40	297.41	363.01	65.60	0.99	65.60	0.99
0:10:50	297.43	363.01	65.57	0.99	65.57	0.99
0:11:00	297.41	363.01	65.60	0.99	65.60	0.99
0:11:10	297.41	363.01	65.60	0.99	65.60	0.99
0:11:20	297.43	363.01	65.57	0.99	65.57	0.99
0:11:30	297.45	363.01	65.56	0.99	65.56	0.99
0:11:40	297.43	363.01	65.57	0.99	65.57	0.99
0:11:50	297.41	363.01	65.60	0.99	65.60	0.99
0:12:00	297.43	363.01	65.57	0.99	65.57	0.99
0:12:10	297.45	363.01	65.56	0.99	65.56	0.99
0:12:20	297.45	363.01	65.56	0.99	65.56	0.99
0:12:30	297.43	363.01	65.57	0.99	65.57	0.99
0:12:40	297.45	363.01	65.56	0.99	65.56	0.99
0:12:50	297.47	363.01	65.53	0.99	65.53	0.99
0:13:00	297.43	363.01	65.57	0.99	65.57	0.99
0:13:10	297.43	363.01	65.57	0.99	65.57	0.99
0:13:20	297.41	363.01	65.60	0.99	65.60	0.99
0:13:30	297.45	363.01	65.56	0.99	65.56	0.99
0:13:40	297.45	363.01	65.56	0.99	65.56	0.99
0:13:50	297.45	363.01	65.56	0.99	65.56	0.99
0:14:00	297.45	363.01	65.56	0.99	65.56	0.99
0:14:10	297.50	363.01	65.51	0.99	65.51	0.99
0:14:20	297.43	363.01	65.57	0.99	65.57	0.99
0:14:30	297.41	363.01	65.60	0.99	65.60	0.99
0:14:40	297.50	363.01	65.51	0.99	65.51	0.99
0:14:50	297.47	363.01	65.53	0.99	65.53	0.99
0:15:00	297.47	363.01	65.53	0.99	65.53	0.99
0:15:10	297.43	363.01	65.57	0.99	65.57	0.99
0:15:20	297.43	363.01	65.57	0.99	65.57	0.99
0:15:30	297.41	363.01	65.60	0.99	65.60	0.99
0:15:40	297.47	363.01	65.53	0.99	65.53	0.99
0:15:50	297.45	363.01	65.56	0.99	65.56	0.99
0:16:00	297.47	363.01	65.53	0.99	65.53	0.99
0:16:10	297.47	363.01	65.53	0.99	65.53	0.99
0:16:20	297.50	363.01	65.51	0.99	65.51	0.99
0:16:30	297.51	363.01	65.49	0.99	65.49	0.99

0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	297.47	363.01	65.53	0.99	65.53	0.99
0:16:50	297.47	363.01	65.53	0.99	65.53	0.99
0:17:00	297.50	363.01	65.51	0.99	65.51	0.99
0:17:10	297.51	363.01	65.49	0.99	65.49	0.99
0:17:20	297.51	363.01	65.49	0.99	65.49	0.99
0:17:30	297.54	363.01	65.47	0.99	65.47	0.99
0:17:40	297.51	363.01	65.49	0.99	65.49	0.99
0:17:50	297.56	363.01	65.44	0.99	65.44	0.99
0:18:00	297.58	363.01	65.43	0.99	65.43	0.99
0:18:10	297.56	363.01	65.44	0.99	65.44	0.99
0:18:20	297.58	363.01	65.43	0.99	65.43	0.99
0:18:30	297.60	363.01	65.40	0.99	65.40	0.99
0:18:40	297.58	363.01	65.43	0.99	65.43	0.99
0:18:50	297.60	363.01	65.40	0.99	65.40	0.99
0:19:00	297.60	363.01	65.40	0.99	65.40	0.99
0:19:10	297.64	363.01	65.36	0.99	65.36	0.99
0:19:20	297.63	363.01	65.38	0.99	65.38	0.99
0:19:30	297.63	363.01	65.38	0.99	65.38	0.99
0:19:40	297.67	363.01	65.34	0.99	65.34	0.99
0:19:50	297.63	363.01	65.38	0.99	65.38	0.99
0:20:00	297.64	363.01	65.36	0.99	65.36	0.99
0:20:10	297.67	363.01	65.34	0.99	65.34	0.99
0:20:40	297.64	363.01	65.36	0.99	65.36	0.99
0:21:10	297.64	363.01	65.36	0.99	65.36	0.99
0:21:40	297.67	363.01	65.34	0.99	65.34	0.99
0:22:10	297.70	363.01	65.31	0.99	65.31	0.99
0:22:40	297.70	363.01	65.31	0.99	65.31	0.99
0:23:10	297.70	363.01	65.31	0.99	65.31	0.99
0:23:40	297.67	363.01	65.34	0.99	65.34	0.99
0:24:10	297.70	363.01	65.31	0.99	65.31	0.99
0:24:40	297.70	363.01	65.31	0.99	65.31	0.99
0:25:10	297.70	363.01	65.31	0.99	65.31	0.99
0:25:40	297.74	363.01	65.27	0.99	65.27	0.99
0:26:10	297.78	363.01	65.23	0.99	65.23	0.99
0:26:40	297.80	363.01	65.20	0.99	65.20	0.99
0:27:10	297.84	363.01	65.16	0.99	65.16	0.99
0:27:40	297.87	363.01	65.14	0.99	65.14	0.99
0:28:10	297.94	363.01	65.07	0.99	65.07	0.99
0:28:40	297.96	363.01	65.04	0.99	65.04	0.99
0:29:10	297.98	363.01	65.03	0.99	65.03	0.99
0:29:40	298.00	363.01	65.00	0.99	65.00	0.99
0:30:10	298.04	363.01	64.96	0.99	64.96	0.99
0:30:40	298.07	363.01	64.94	0.98	64.94	0.98
0:31:10	298.07	363.01	64.94	0.98	64.94	0.98
0:31:40	298.07	363.01	64.94	0.98	64.94	0.98
0:32:10	298.11	363.01	64.90	0.98	64.90	0.98
0:32:40	298.09	363.01	64.91	0.98	64.91	0.98
0:33:10	298.07	363.01	64.94	0.98	64.94	0.98
0:33:40	298.11	363.01	64.90	0.98	64.90	0.98
0:34:10	298.13	363.01	64.87	0.98	64.87	0.98

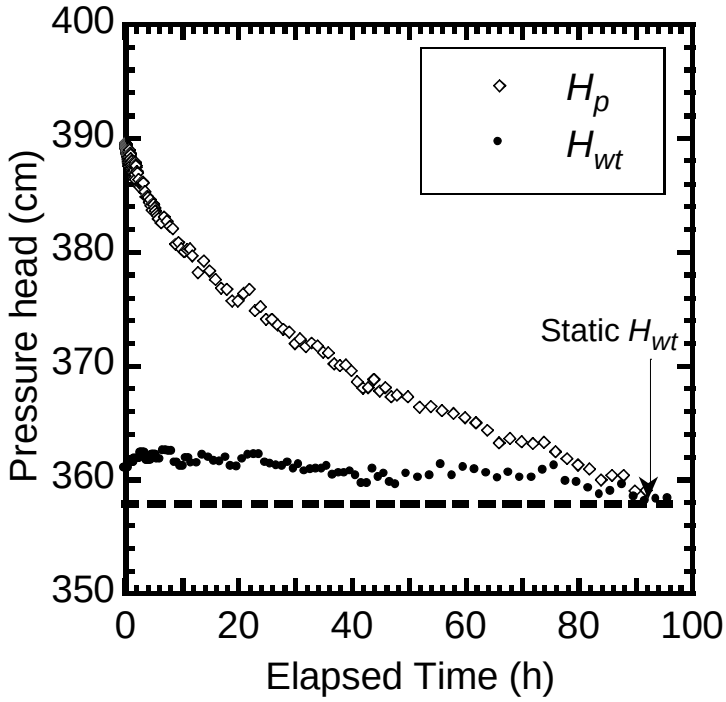
0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:34:40	298.16	363.01	64.85	0.98	64.85	0.98
0:35:10	298.13	363.01	64.87	0.98	64.87	0.98
0:35:40	298.16	363.01	64.85	0.98	64.85	0.98
0:36:10	298.17	363.01	64.83	0.98	64.83	0.98
0:36:40	298.20	363.01	64.81	0.98	64.81	0.98
0:37:10	298.23	363.01	64.78	0.98	64.78	0.98
0:37:40	298.23	363.01	64.78	0.98	64.78	0.98
0:38:10	298.20	363.01	64.81	0.98	64.81	0.98
0:38:40	298.27	363.01	64.74	0.98	64.74	0.98
0:39:10	298.29	363.01	64.71	0.98	64.71	0.98
0:39:40	298.29	363.01	64.71	0.98	64.71	0.98
0:40:10	299.33	363.87	64.55	0.98	63.68	0.97
0:40:40	299.35	363.87	64.52	0.98	63.65	0.97
0:41:10	299.38	363.87	64.49	0.98	63.63	0.97
0:41:40	299.38	363.87	64.49	0.98	63.63	0.97
0:42:10	299.39	363.87	64.48	0.98	63.61	0.96
0:42:40	299.39	363.87	64.48	0.98	63.61	0.96
0:43:10	299.39	363.87	64.48	0.98	63.61	0.96
0:43:40	299.44	363.87	64.43	0.98	63.56	0.96
0:44:10	299.42	363.87	64.46	0.98	63.59	0.96
0:44:40	299.44	363.87	64.43	0.98	63.56	0.96
0:45:10	299.46	363.87	64.42	0.98	63.55	0.96
0:45:40	299.48	363.87	64.39	0.98	63.52	0.96
0:46:10	299.50	363.87	64.38	0.98	63.51	0.96
0:46:40	299.52	363.87	64.35	0.98	63.48	0.96
0:47:10	299.50	363.87	64.38	0.98	63.51	0.96
0:47:40	299.50	363.87	64.38	0.98	63.51	0.96
0:48:10	299.55	363.87	64.32	0.98	63.46	0.96
0:48:40	299.55	363.87	64.32	0.98	63.46	0.96
0:49:10	299.62	363.87	64.26	0.97	63.39	0.96
0:49:40	299.62	363.87	64.26	0.97	63.39	0.96
0:50:10	299.62	363.87	64.26	0.97	63.39	0.96
0:51:10	299.62	363.87	64.26	0.97	63.39	0.96
0:52:10	299.63	363.87	64.24	0.97	63.38	0.96
0:53:10	299.68	363.87	64.19	0.97	63.32	0.96
0:54:10	299.70	363.87	64.18	0.97	63.31	0.96
0:55:10	299.72	363.87	64.15	0.97	63.28	0.96
0:56:10	299.78	363.87	64.10	0.97	63.23	0.96
0:57:10	299.82	363.87	64.06	0.97	63.19	0.96
0:58:10	299.82	363.87	64.06	0.97	63.19	0.96
0:59:10	299.85	363.87	64.02	0.97	63.15	0.96
1:00:10	299.89	363.87	63.98	0.97	63.11	0.96
1:01:10	299.95	363.87	63.93	0.97	63.06	0.96
1:02:10	299.99	363.87	63.89	0.97	63.02	0.96
1:03:10	300.03	363.87	63.85	0.97	62.98	0.96
1:04:10	300.08	363.87	63.79	0.97	62.93	0.95
1:05:10	300.09	363.87	63.78	0.97	62.91	0.95
1:06:10	300.15	363.87	63.73	0.97	62.86	0.95
1:07:10	300.18	363.87	63.69	0.97	62.82	0.95
1:08:10	300.21	363.87	63.66	0.97	62.79	0.95

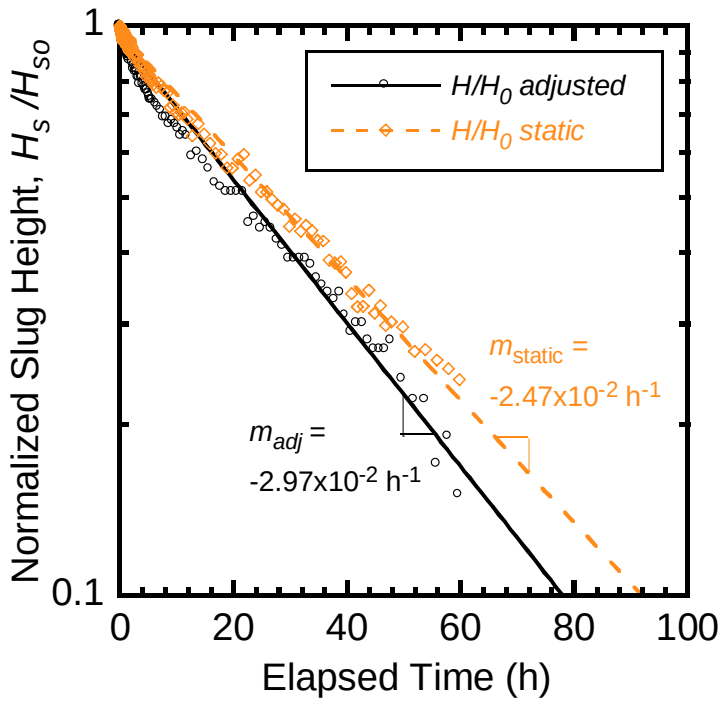
0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:09:10	300.28	363.87	63.59	0.96	62.73	0.95
1:10:10	300.25	363.87	63.62	0.96	62.76	0.95
1:11:10	300.32	363.87	63.55	0.96	62.69	0.95
1:12:10	300.34	363.87	63.53	0.96	62.66	0.95
1:13:10	300.32	363.87	63.55	0.96	62.69	0.95
1:14:10	300.34	363.87	63.53	0.96	62.66	0.95
1:15:10	300.40	363.87	63.48	0.96	62.61	0.95
1:16:10	300.42	363.87	63.45	0.96	62.58	0.95
1:17:10	300.42	363.87	63.45	0.96	62.58	0.95
1:18:10	300.53	363.87	63.34	0.96	62.48	0.95
1:19:10	300.56	363.87	63.32	0.96	62.45	0.95
1:20:10	300.65	363.87	63.22	0.96	62.36	0.95
1:21:10	300.69	363.87	63.19	0.96	62.32	0.95
1:22:10	300.71	363.87	63.16	0.96	62.29	0.94
1:23:10	300.75	363.87	63.12	0.96	62.25	0.94
1:24:10	300.79	363.87	63.08	0.96	62.21	0.94
1:25:10	300.82	363.87	63.05	0.96	62.19	0.94
1:26:10	300.82	363.87	63.05	0.96	62.19	0.94
1:27:10	300.86	363.87	63.01	0.96	62.15	0.94
1:28:10	300.89	363.87	62.99	0.96	62.12	0.94
1:29:10	300.93	363.87	62.95	0.95	62.08	0.94
1:30:10	300.95	363.87	62.92	0.95	62.05	0.94
1:31:10	300.99	363.87	62.88	0.95	62.01	0.94
1:32:10	301.05	363.87	62.83	0.95	61.96	0.94
1:33:10	301.06	363.87	62.81	0.95	61.95	0.94
1:34:10	301.11	363.87	62.76	0.95	61.89	0.94
1:35:10	301.15	363.87	62.72	0.95	61.85	0.94
1:36:10	301.19	363.87	62.68	0.95	61.82	0.94
1:37:10	301.24	363.87	62.63	0.95	61.76	0.94
1:38:10	301.24	363.87	62.63	0.95	61.76	0.94
1:39:10	301.32	363.87	62.55	0.95	61.68	0.94
1:40:10	301.35	363.65	62.30	0.94	61.66	0.94
1:41:10	301.42	363.65	62.23	0.94	61.59	0.93
1:42:10	301.39	363.65	62.26	0.94	61.62	0.93
1:43:10	301.39	363.65	62.26	0.94	61.62	0.93
1:44:10	301.48	363.65	62.17	0.94	61.52	0.93
1:45:10	301.44	363.65	62.21	0.94	61.56	0.93
1:46:10	301.52	363.65	62.13	0.94	61.49	0.93
1:47:10	301.52	363.65	62.13	0.94	61.49	0.93
1:48:10	301.57	363.65	62.08	0.94	61.43	0.93
1:49:10	301.57	363.65	62.08	0.94	61.43	0.93
1:50:10	301.59	363.65	62.06	0.94	61.42	0.93
2:00:10	301.71	363.65	61.94	0.94	61.30	0.93
2:10:10	301.89	363.65	61.76	0.94	61.11	0.93
2:20:10	302.09	363.65	61.56	0.93	60.92	0.92
2:30:10	302.32	363.65	61.34	0.93	60.69	0.92
2:40:10	302.72	363.41	60.68	0.92	60.28	0.91
2:50:10	302.99	363.41	60.42	0.92	60.02	0.91
3:00:10	303.19	363.41	60.22	0.91	59.82	0.91
3:10:10	303.39	363.41	60.02	0.91	59.62	0.90

0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:20:10	303.55	363.41	59.86	0.91	59.46	0.90
3:30:10	303.72	363.41	59.69	0.91	59.29	0.90
3:40:10	304.02	363.39	59.37	0.90	58.98	0.89
3:50:10	304.15	363.39	59.23	0.90	58.85	0.89
4:00:10	304.48	363.39	58.90	0.89	58.52	0.89
4:10:10	304.78	363.39	58.61	0.89	58.23	0.88
4:20:10	305.05	363.39	58.33	0.88	57.95	0.88
4:30:10	305.32	363.39	58.07	0.88	57.69	0.87
4:40:10	305.56	363.30	57.75	0.88	57.45	0.87
4:50:10	305.87	363.30	57.43	0.87	57.13	0.87
5:00:10	306.19	363.30	57.11	0.87	56.81	0.86
5:10:10	306.46	363.30	56.85	0.86	56.55	0.86
5:20:10	306.68	363.30	56.62	0.86	56.32	0.85
5:30:10	306.92	363.30	56.38	0.86	56.09	0.85
5:40:10	307.08	363.07	56.00	0.85	55.93	0.85
5:50:10	307.32	363.07	55.76	0.85	55.69	0.84
6:20:10	307.85	363.07	55.23	0.84	55.16	0.84
6:50:10	309.39	363.79	54.40	0.83	53.61	0.81
7:20:10	309.90	363.79	53.90	0.82	53.11	0.81
7:50:10	310.37	363.59	53.22	0.81	52.63	0.80
8:20:10	310.94	363.59	52.65	0.80	52.06	0.79
8:50:10	311.47	363.21	51.73	0.78	51.54	0.78
9:20:10	311.91	363.21	51.30	0.78	51.10	0.78
9:50:10	313.17	363.85	50.69	0.77	49.84	0.76
10:20:10	313.55	363.85	50.30	0.76	49.46	0.75
10:50:10	313.95	363.48	49.54	0.75	49.06	0.74
11:20:10	314.26	363.48	49.22	0.75	48.74	0.74
11:50:10	315.71	364.30	48.59	0.74	47.30	0.72
12:50:10	315.63	363.45	47.82	0.73	47.38	0.72
13:50:10	317.23	363.79	46.57	0.71	45.78	0.69
14:50:10	318.09	362.95	44.86	0.68	44.92	0.68
15:50:10	319.58	362.96	43.38	0.66	43.42	0.66
16:50:10	321.61	363.95	42.35	0.64	41.40	0.63
17:50:10	322.60	363.80	41.20	0.62	40.41	0.61
18:50:10	323.37	363.43	40.06	0.61	39.64	0.60
19:50:10	324.76	363.94	39.19	0.59	38.25	0.58
20:50:10	325.92	364.56	38.64	0.59	37.08	0.56
21:50:10	326.35	364.16	37.81	0.57	36.66	0.56
22:50:10	326.89	363.78	36.89	0.56	36.12	0.55
23:50:10	328.20	364.60	36.40	0.55	34.81	0.53
24:50:10	329.14	364.49	35.36	0.54	33.87	0.51
25:50:10	330.38	364.40	34.01	0.52	32.62	0.49
26:50:10	330.91	364.50	33.59	0.51	32.10	0.49
27:50:10	331.00	363.74	32.74	0.50	32.00	0.49
28:50:10	332.38	363.85	31.47	0.48	30.63	0.46
29:50:10	333.57	363.64	30.07	0.46	29.44	0.45
30:50:10	333.78	363.54	29.76	0.45	29.22	0.44
31:50:10	334.65	363.49	28.84	0.44	28.35	0.43
32:50:10	335.32	363.43	28.11	0.43	27.69	0.42
33:50:10	335.99	363.31	27.32	0.41	27.02	0.41

0+80.0	5.0 m					Test #5
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
34:50:10	336.60	363.25	26.65	0.40	26.41	0.40
35:50:10	337.37	363.30	25.94	0.39	25.64	0.39
36:50:10	338.09	363.63	25.53	0.39	24.91	0.38
37:50:10	338.38	362.98	24.60	0.37	24.62	0.37
38:50:10	339.66	363.14	23.49	0.36	23.35	0.35
39:50:10	340.50	363.23	22.73	0.34	22.50	0.34
40:50:10	341.20	363.09	21.89	0.33	21.80	0.33
41:50:10	342.46	363.78	21.31	0.32	20.55	0.31
42:50:10	342.26	363.60	21.34	0.32	20.74	0.31
43:50:10	342.77	363.31	20.54	0.31	20.24	0.31
44:50:10	343.96	364.00	20.05	0.30	19.05	0.29
45:50:10	343.89	363.96	20.07	0.30	19.11	0.29
46:50:10	344.62	364.11	19.49	0.30	18.39	0.28
47:50:10	344.62	363.14	18.52	0.28	18.39	0.28
49:50:10	345.11	362.71	17.60	0.27	17.90	0.27
51:50:10	346.03	362.64	16.61	0.25	16.97	0.26
53:50:10	347.37	362.67	15.31	0.23	15.64	0.24
55:50:10	348.05	362.32	14.26	0.22	14.95	0.23
57:50:10	348.28	361.81	13.53	0.21	14.73	0.22
59:50:10	348.83	361.62	12.78	0.19	14.17	0.21
61:50:10	349.16	361.37	12.21	0.19	13.84	0.21
63:50:10	349.70	360.86	11.16	0.17	13.30	0.20
65:50:10	350.76	361.09	10.33	0.16	12.24	0.19
67:50:10	351.80	361.69	9.89	0.15	11.21	0.17
69:50:10	351.58	361.08	9.49	0.14	11.42	0.17
71:50:10	352.96	362.40	9.44	0.14	10.04	0.15
73:50:10	352.37	361.35	8.98	0.14	10.64	0.16
75:50:10	352.47	361.04	8.57	0.13	10.54	0.16
77:50:10	352.63	360.52	7.90	0.12	10.38	0.16
79:50:10	353.97	360.81	6.85	0.10	9.04	0.14
81:50:10	354.04	360.51	6.47	0.10	8.96	0.14
83:50:10	355.06	361.27	6.21	0.09	7.94	0.12
85:50:10	354.64	360.82	6.18	0.09	8.37	0.13
87:50:10	354.80	360.24	5.44	0.08	8.21	0.12
89:50:10	355.49	360.14	4.65	0.07	7.52	0.11
91:50:10	355.63	360.42	4.78	0.07	7.37	0.11
93:50:10	356.27	360.56	4.29	0.07	6.74	0.10
95:50:10	356.12	360.75	4.63	0.07	6.88	0.10
97:50:10	356.59	361.08	4.49	0.07	6.42	0.10
99:50:10	357.74	361.61	3.87	0.06	5.27	0.08
101:50:10	358.06	361.41	3.35	0.05	4.95	0.08
103:50:10	358.65	362.26	3.61	0.05	4.35	0.07
105:50:10	359.16	362.58	3.42	0.05	3.85	0.06
107:50:10	358.48	362.03	3.55	0.05	4.52	0.07
109:50:10	359.24	362.75	3.51	0.05	3.77	0.06
111:50:10	359.28	362.29	3.01	0.05	3.73	0.06
113:50:10	359.56	362.16	2.61	0.04	3.45	0.05

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	6
Well #	9	**Test Type**	Rate of Fall
Start Date of Test	9/4/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	357.9
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	28.6/31.7
$k_{adj.}$ (cm/s)	2.44E-07	**k_{static} (cm/s)**	2.03E-07





0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	389.59	360.97	28.62	1.00	28.62	1.00
0:00:10	389.56	360.97	28.60	1.00	28.60	1.00
0:00:20	389.55	360.97	28.58	1.00	28.58	1.00
0:00:30	389.56	360.97	28.60	1.00	28.60	1.00
0:00:40	389.55	360.97	28.58	1.00	28.58	1.00
0:00:50	389.56	360.97	28.60	1.00	28.60	1.00
0:01:00	389.55	360.97	28.58	1.00	28.58	1.00
0:01:10	389.52	360.97	28.56	1.00	28.56	1.00
0:01:20	389.55	360.97	28.58	1.00	28.58	1.00
0:01:30	389.51	360.97	28.54	1.00	28.54	1.00
0:01:40	389.46	360.97	28.49	1.00	28.49	1.00
0:01:50	389.44	360.97	28.48	0.99	28.48	0.99
0:02:00	389.48	360.97	28.52	1.00	28.52	1.00
0:02:10	389.48	360.97	28.52	1.00	28.52	1.00
0:02:20	389.44	360.97	28.48	0.99	28.48	0.99
0:02:30	389.46	360.97	28.49	1.00	28.49	1.00
0:02:40	389.44	360.97	28.48	0.99	28.48	0.99
0:02:50	389.42	360.97	28.45	0.99	28.45	0.99
0:03:00	389.38	360.97	28.41	0.99	28.41	0.99
0:03:10	389.44	360.97	28.48	0.99	28.48	0.99
0:03:20	389.39	360.97	28.42	0.99	28.42	0.99
0:03:30	389.38	360.97	28.41	0.99	28.41	0.99
0:03:40	389.38	360.97	28.41	0.99	28.41	0.99
0:03:50	389.35	360.97	28.38	0.99	28.38	0.99
0:04:00	389.34	360.97	28.37	0.99	28.37	0.99
0:04:10	389.31	360.97	28.34	0.99	28.34	0.99
0:04:20	389.35	360.97	28.38	0.99	28.38	0.99
0:04:30	389.31	360.97	28.34	0.99	28.34	0.99
0:04:40	389.31	360.97	28.34	0.99	28.34	0.99
0:04:50	389.31	360.97	28.34	0.99	28.34	0.99
0:05:00	389.31	360.97	28.34	0.99	28.34	0.99
0:05:10	389.26	360.97	28.29	0.99	28.29	0.99
0:05:20	389.24	360.97	28.28	0.99	28.28	0.99
0:05:30	389.26	360.97	28.29	0.99	28.29	0.99
0:05:40	389.22	360.97	28.25	0.99	28.25	0.99
0:05:50	389.22	360.97	28.25	0.99	28.25	0.99
0:06:00	389.20	360.97	28.24	0.99	28.24	0.99
0:06:10	389.20	360.97	28.24	0.99	28.24	0.99
0:06:20	389.18	360.97	28.21	0.99	28.21	0.99
0:06:30	389.26	360.97	28.29	0.99	28.29	0.99
0:06:40	389.20	360.97	28.24	0.99	28.24	0.99
0:06:50	389.15	360.97	28.18	0.98	28.18	0.98
0:07:00	389.14	360.97	28.17	0.98	28.17	0.98
0:07:10	389.18	360.97	28.21	0.99	28.21	0.99
0:07:20	389.20	360.97	28.24	0.99	28.24	0.99
0:07:30	389.15	360.97	28.18	0.98	28.18	0.98
0:07:40	389.15	360.97	28.18	0.98	28.18	0.98
0:07:50	389.15	360.97	28.18	0.98	28.18	0.98
0:08:00	389.11	360.97	28.15	0.98	28.15	0.98
0:08:10	389.14	360.97	28.17	0.98	28.17	0.98

0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:08:20	389.14	360.97	28.17	0.98	28.17	0.98
0:08:30	389.14	360.97	28.17	0.98	28.17	0.98
0:08:40	389.11	360.97	28.15	0.98	28.15	0.98
0:08:50	389.11	360.97	28.15	0.98	28.15	0.98
0:09:00	389.09	360.97	28.12	0.98	28.12	0.98
0:09:10	389.11	360.97	28.15	0.98	28.15	0.98
0:09:20	389.11	360.97	28.15	0.98	28.15	0.98
0:09:30	389.11	360.97	28.15	0.98	28.15	0.98
0:09:40	389.07	360.97	28.11	0.98	28.11	0.98
0:09:50	389.09	360.97	28.12	0.98	28.12	0.98
0:10:00	389.07	360.97	28.11	0.98	28.11	0.98
0:10:10	389.07	360.97	28.11	0.98	28.11	0.98
0:10:20	389.07	360.97	28.11	0.98	28.11	0.98
0:10:30	389.05	360.97	28.08	0.98	28.08	0.98
0:10:40	389.05	360.97	28.08	0.98	28.08	0.98
0:10:50	389.01	360.97	28.04	0.98	28.04	0.98
0:11:00	389.01	360.97	28.04	0.98	28.04	0.98
0:11:10	388.98	360.97	28.01	0.98	28.01	0.98
0:11:20	389.03	360.97	28.07	0.98	28.07	0.98
0:11:30	389.01	360.97	28.04	0.98	28.04	0.98
0:11:40	388.97	360.97	28.00	0.98	28.00	0.98
0:11:50	388.98	360.97	28.01	0.98	28.01	0.98
0:12:00	389.05	360.97	28.08	0.98	28.08	0.98
0:12:10	389.05	360.97	28.08	0.98	28.08	0.98
0:12:20	389.01	360.97	28.04	0.98	28.04	0.98
0:12:30	388.97	360.97	28.00	0.98	28.00	0.98
0:12:40	388.97	360.97	28.00	0.98	28.00	0.98
0:12:50	388.98	360.97	28.01	0.98	28.01	0.98
0:13:00	388.97	360.97	28.00	0.98	28.00	0.98
0:13:10	388.94	360.97	27.97	0.98	27.97	0.98
0:13:20	388.91	360.97	27.95	0.98	27.95	0.98
0:13:30	388.90	360.97	27.93	0.98	27.93	0.98
0:13:40	388.94	360.97	27.97	0.98	27.97	0.98
0:13:50	388.87	360.97	27.91	0.98	27.91	0.98
0:14:00	388.94	360.97	27.97	0.98	27.97	0.98
0:14:10	388.91	360.97	27.95	0.98	27.95	0.98
0:14:20	388.91	360.97	27.95	0.98	27.95	0.98
0:14:30	388.85	360.97	27.88	0.97	27.88	0.97
0:14:40	388.85	360.97	27.88	0.97	27.88	0.97
0:14:50	388.83	360.97	27.87	0.97	27.87	0.97
0:15:00	388.85	360.97	27.88	0.97	27.88	0.97
0:15:10	388.91	360.97	27.95	0.98	27.95	0.98
0:15:20	388.87	360.97	27.91	0.98	27.91	0.98
0:15:30	388.85	360.97	27.88	0.97	27.88	0.97
0:15:40	388.81	360.97	27.84	0.97	27.84	0.97
0:15:50	388.81	360.97	27.84	0.97	27.84	0.97
0:16:00	388.85	360.97	27.88	0.97	27.88	0.97
0:16:10	388.83	360.97	27.87	0.97	27.87	0.97
0:16:20	388.81	360.97	27.84	0.97	27.84	0.97
0:16:30	388.79	360.97	27.83	0.97	27.83	0.97

0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:16:40	388.77	360.97	27.80	0.97	27.80	0.97
0:16:50	388.74	360.97	27.77	0.97	27.77	0.97
0:17:00	388.79	360.97	27.83	0.97	27.83	0.97
0:17:10	388.74	360.97	27.77	0.97	27.77	0.97
0:17:20	388.74	360.97	27.77	0.97	27.77	0.97
0:17:30	388.79	360.97	27.83	0.97	27.83	0.97
0:17:40	388.74	360.97	27.77	0.97	27.77	0.97
0:17:50	388.74	360.97	27.77	0.97	27.77	0.97
0:18:00	388.70	360.97	27.73	0.97	27.73	0.97
0:18:10	388.74	360.97	27.77	0.97	27.77	0.97
0:18:20	388.74	360.97	27.77	0.97	27.77	0.97
0:18:30	388.70	360.97	27.73	0.97	27.73	0.97
0:18:40	388.74	360.97	27.77	0.97	27.77	0.97
0:19:10	388.66	360.97	27.70	0.97	27.70	0.97
0:19:40	388.61	360.97	27.64	0.97	27.64	0.97
0:20:10	388.54	360.97	27.58	0.96	27.58	0.96
0:20:40	388.54	360.97	27.58	0.96	27.58	0.96
0:21:10	388.50	360.97	27.54	0.96	27.54	0.96
0:21:40	388.49	360.97	27.52	0.96	27.52	0.96
0:22:10	388.46	360.97	27.50	0.96	27.50	0.96
0:22:40	388.49	360.97	27.52	0.96	27.52	0.96
0:23:10	388.44	360.97	27.47	0.96	27.47	0.96
0:23:40	388.36	360.97	27.39	0.96	27.39	0.96
0:24:10	388.40	360.97	27.43	0.96	27.43	0.96
0:24:40	388.40	360.97	27.43	0.96	27.43	0.96
0:25:10	388.36	360.97	27.39	0.96	27.39	0.96
0:25:40	388.36	360.97	27.39	0.96	27.39	0.96
0:26:10	388.29	360.97	27.32	0.95	27.32	0.95
0:26:40	388.26	360.97	27.30	0.95	27.30	0.95
0:27:10	388.26	360.97	27.30	0.95	27.30	0.95
0:27:40	388.23	360.97	27.26	0.95	27.26	0.95
0:28:10	388.24	360.97	27.27	0.95	27.27	0.95
0:28:40	388.16	360.97	27.19	0.95	27.19	0.95
0:29:10	388.37	360.97	27.40	0.96	27.40	0.96
0:29:40	388.13	360.97	27.17	0.95	27.17	0.95
0:30:10	388.13	360.97	27.17	0.95	27.17	0.95
0:30:40	388.19	360.97	27.22	0.95	27.22	0.95
0:31:10	387.89	360.97	29.73	0.94	29.73	0.94
0:31:40	387.96	360.97	29.79	0.94	29.79	0.94
0:32:10	388.05	360.97	27.09	0.95	27.09	0.95
0:32:40	387.88	360.97	29.71	0.94	29.71	0.94
0:33:10	387.99	360.97	27.02	0.94	27.02	0.94
0:33:40	387.92	360.97	29.75	0.94	29.75	0.94
0:34:10	387.92	360.97	29.75	0.94	29.75	0.94
0:34:40	387.89	360.97	29.73	0.94	29.73	0.94
0:35:10	387.83	360.97	26.86	0.94	26.86	0.94
0:35:40	387.76	360.97	26.80	0.94	26.80	0.94
0:36:10	387.79	360.97	26.82	0.94	26.82	0.94
0:36:40	388.05	360.97	27.09	0.95	27.09	0.95
0:37:10	387.62	360.97	26.65	0.93	26.65	0.93

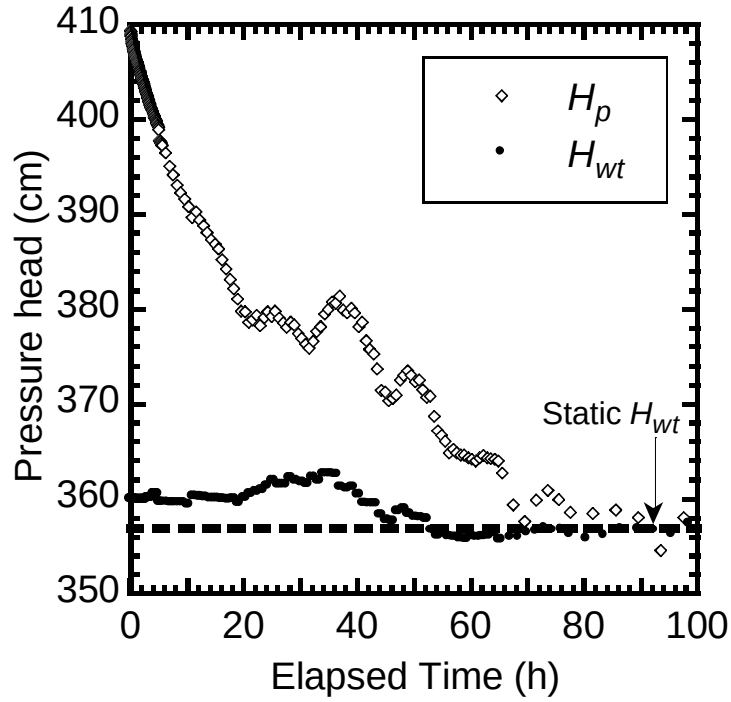
0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:37:40	387.59	360.97	26.62	0.93	26.62	0.93
0:38:10	387.55	360.97	26.58	0.93	26.58	0.93
0:38:40	387.59	360.97	26.62	0.93	26.62	0.93
0:39:10	387.72	360.97	26.76	0.93	26.76	0.93
0:39:40	387.85	360.97	26.89	0.94	26.89	0.94
0:40:10	388.74	361.45	27.29	0.95	27.78	0.97
0:40:40	388.66	361.45	27.21	0.95	27.70	0.97
0:41:10	388.74	361.45	27.29	0.95	27.78	0.97
0:41:40	388.57	361.45	27.12	0.95	27.60	0.96
0:42:10	388.98	361.45	27.53	0.96	28.01	0.98
0:42:40	388.24	361.45	26.79	0.94	27.27	0.95
0:43:10	388.48	361.45	27.03	0.94	27.51	0.96
0:43:40	388.33	361.45	26.88	0.94	27.37	0.96
0:44:10	388.37	361.45	29.72	0.94	27.41	0.96
0:44:40	388.40	361.45	29.75	0.94	27.43	0.96
0:45:10	388.44	361.45	29.79	0.94	27.47	0.96
0:45:40	388.46	361.45	27.02	0.94	27.50	0.96
0:46:10	388.48	361.45	27.03	0.94	27.51	0.96
0:46:40	388.31	361.45	26.86	0.94	27.34	0.96
0:47:10	388.72	361.45	27.27	0.95	27.75	0.97
0:47:40	388.72	361.45	27.27	0.95	27.75	0.97
0:48:10	388.40	361.45	29.75	0.94	27.43	0.96
0:48:40	388.31	361.45	26.86	0.94	27.34	0.96
0:49:40	388.24	361.45	26.79	0.94	27.27	0.95
0:50:40	388.24	361.45	26.79	0.94	27.27	0.95
0:51:40	388.68	361.45	27.23	0.95	27.71	0.97
0:52:40	388.61	361.45	27.16	0.95	27.64	0.97
0:53:40	388.24	361.45	26.79	0.94	27.27	0.95
0:54:40	387.71	361.45	26.26	0.92	26.74	0.93
0:55:40	387.94	361.45	26.49	0.93	29.77	0.94
0:56:40	387.82	361.45	26.37	0.92	26.85	0.94
0:57:40	387.96	361.45	26.51	0.93	29.79	0.94
0:58:40	387.92	361.45	26.47	0.92	29.76	0.94
0:59:40	388.00	361.45	26.55	0.93	27.03	0.94
1:00:40	387.72	361.45	26.27	0.92	26.76	0.93
1:01:40	387.89	361.45	26.45	0.92	29.73	0.94
1:02:40	387.83	361.45	26.38	0.92	26.86	0.94
1:03:40	387.45	361.45	26.00	0.91	26.48	0.93
1:04:40	387.75	361.45	26.30	0.92	26.78	0.94
1:05:40	387.75	361.45	26.30	0.92	26.78	0.94
1:06:40	388.00	361.45	26.55	0.93	27.03	0.94
1:07:40	387.71	361.45	26.26	0.92	26.74	0.93
1:08:40	387.56	361.45	26.12	0.91	26.60	0.93
1:09:40	387.79	361.45	26.34	0.92	26.82	0.94
1:10:40	387.11	361.45	25.67	0.90	26.15	0.91
1:11:40	387.52	361.45	26.07	0.91	26.56	0.93
1:12:40	387.59	361.45	26.14	0.91	26.62	0.93
1:13:40	387.27	361.45	25.82	0.90	26.31	0.92
1:14:40	387.10	361.45	25.65	0.90	26.13	0.91
1:15:40	387.59	361.45	26.14	0.91	26.62	0.93

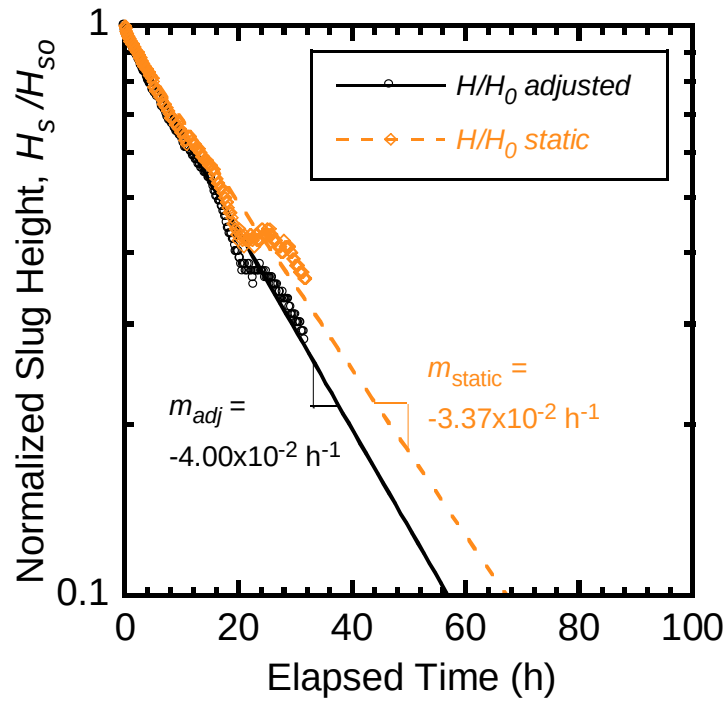
0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:16:40	387.14	361.45	25.69	0.90	26.17	0.91
1:17:40	387.22	361.45	25.77	0.90	26.25	0.92
1:18:40	387.10	361.45	25.65	0.90	26.13	0.91
1:19:40	387.59	361.45	26.14	0.91	26.62	0.93
1:20:40	386.94	361.45	25.49	0.89	25.98	0.91
1:21:40	387.39	361.45	25.94	0.91	26.43	0.92
1:22:40	387.27	361.45	25.82	0.90	26.31	0.92
1:23:40	386.94	361.45	25.49	0.89	25.98	0.91
1:24:40	387.46	361.45	26.01	0.91	26.49	0.93
1:25:40	387.31	361.45	25.86	0.90	26.35	0.92
1:26:40	387.21	361.45	25.76	0.90	26.24	0.92
1:27:40	386.74	361.45	25.29	0.88	25.78	0.90
1:28:40	387.38	361.45	25.93	0.91	26.41	0.92
1:29:40	387.22	361.45	25.77	0.90	26.25	0.92
1:30:40	386.85	361.45	25.40	0.89	25.88	0.90
1:31:40	387.18	361.45	25.73	0.90	26.21	0.92
1:32:40	387.22	361.45	25.77	0.90	26.25	0.92
1:33:40	386.85	361.45	25.40	0.89	25.88	0.90
1:34:40	386.49	361.45	25.04	0.88	25.53	0.89
1:35:40	386.64	361.45	25.19	0.88	25.67	0.90
1:36:40	386.57	361.45	25.12	0.88	25.61	0.89
1:37:40	386.80	361.45	25.35	0.89	25.83	0.90
1:38:40	386.88	361.45	25.43	0.89	25.91	0.91
1:39:40	386.43	361.45	24.98	0.87	25.46	0.89
1:40:40	387.70	361.80	25.90	0.90	26.73	0.93
1:41:40	387.53	361.80	25.73	0.90	26.56	0.93
1:42:40	387.79	361.80	25.99	0.91	26.82	0.94
1:43:40	387.94	361.80	26.14	0.91	29.77	0.94
1:44:40	387.66	361.80	25.86	0.90	26.69	0.93
1:45:40	387.51	361.80	25.72	0.90	26.55	0.93
1:46:40	387.63	361.80	25.84	0.90	26.66	0.93
1:47:40	387.45	361.80	25.65	0.90	26.48	0.93
1:48:40	387.62	361.80	25.82	0.90	26.65	0.93
1:58:40	387.14	361.80	25.35	0.89	26.18	0.91
2:08:40	386.98	361.80	25.19	0.88	26.02	0.91
2:18:40	386.40	361.80	24.61	0.86	25.43	0.89
2:28:40	385.75	361.80	23.96	0.84	24.79	0.87
2:38:40	386.03	361.80	24.23	0.85	25.06	0.88
2:48:40	386.11	362.29	23.82	0.83	25.14	0.88
2:58:40	386.20	362.29	23.91	0.84	25.24	0.88
3:08:40	386.11	362.29	23.82	0.83	25.14	0.88
3:18:40	385.36	362.29	23.07	0.81	24.39	0.85
3:28:40	385.36	362.29	23.07	0.81	24.39	0.85
3:38:40	384.89	362.29	22.60	0.79	23.93	0.84
3:48:40	384.95	361.66	23.28	0.81	23.98	0.84
3:58:40	384.81	361.66	23.15	0.81	23.85	0.83
4:08:40	384.40	361.66	22.74	0.79	23.44	0.82
4:18:40	384.65	361.66	22.99	0.80	23.69	0.83
4:28:40	384.10	361.66	22.43	0.78	23.13	0.81
4:38:40	383.69	361.66	22.02	0.77	22.72	0.79

0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:48:40	384.25	362.11	22.14	0.77	23.28	0.81
4:58:40	384.22	362.11	22.11	0.77	23.25	0.81
5:08:40	383.94	362.11	21.83	0.76	22.97	0.80
5:18:40	383.66	362.11	21.56	0.75	22.70	0.79
5:28:40	383.43	362.11	21.32	0.74	22.46	0.78
5:38:40	383.23	362.11	21.12	0.74	22.26	0.78
5:48:40	382.96	361.75	21.21	0.74	21.99	0.77
6:18:40	382.62	361.75	20.86	0.73	21.65	0.76
6:48:40	383.13	362.48	20.66	0.72	22.17	0.77
7:18:40	382.76	362.48	20.28	0.71	21.80	0.76
7:48:40	382.29	362.46	19.83	0.69	21.32	0.74
8:18:40	382.08	362.46	19.62	0.69	21.11	0.74
8:48:40	380.70	361.41	19.29	0.67	19.73	0.69
9:18:40	380.90	361.41	19.49	0.68	19.93	0.70
9:48:40	380.29	361.11	19.18	0.67	19.32	0.68
10:18:40	380.05	361.11	18.94	0.66	19.08	0.67
10:48:40	380.25	361.83	18.42	0.64	19.28	0.67
11:18:40	380.29	361.83	18.46	0.65	19.32	0.68
11:48:40	379.68	361.38	18.30	0.64	18.71	0.65
12:48:40	378.25	361.37	16.89	0.59	17.29	0.60
13:48:40	379.25	362.10	17.14	0.60	18.28	0.64
14:48:40	378.37	361.88	16.50	0.58	17.41	0.61
15:48:40	377.63	361.59	16.04	0.56	16.66	0.58
16:48:40	376.85	361.55	15.30	0.53	15.88	0.55
17:48:40	376.78	361.91	14.88	0.52	15.82	0.55
18:48:40	375.76	361.13	14.64	0.51	14.80	0.52
19:48:40	375.75	361.06	14.69	0.51	14.78	0.52
20:48:40	376.40	361.74	14.66	0.51	15.43	0.54
21:48:40	376.75	362.07	14.67	0.51	15.78	0.55
22:48:40	374.89	362.12	12.77	0.45	13.93	0.49
23:48:40	375.22	362.16	13.06	0.46	14.26	0.50
24:48:40	374.11	361.44	12.67	0.44	13.14	0.46
25:48:40	374.11	361.35	12.76	0.45	13.14	0.46
26:48:40	373.63	361.15	12.48	0.44	12.67	0.44
27:48:40	373.26	361.12	12.14	0.42	12.30	0.43
28:48:40	373.03	361.42	11.60	0.41	12.06	0.42
29:48:40	372.01	360.87	11.14	0.39	11.04	0.39
30:48:40	372.42	361.26	11.16	0.39	11.45	0.40
31:48:40	371.73	360.68	11.05	0.39	10.76	0.38
32:48:40	372.03	360.82	11.21	0.39	11.07	0.39
33:48:40	371.77	360.85	10.92	0.38	10.80	0.38
34:48:40	371.22	360.90	10.33	0.36	10.26	0.36
35:48:40	371.19	361.13	10.05	0.35	10.22	0.36
36:48:40	370.20	360.38	9.82	0.34	9.24	0.32
37:48:40	370.07	360.49	9.58	0.33	9.11	0.32
38:48:40	370.11	360.50	9.61	0.34	9.15	0.32
39:48:40	369.62	360.67	8.96	0.31	8.66	0.30
40:48:40	368.64	360.32	8.33	0.29	7.68	0.27
41:48:40	368.07	359.61	8.46	0.30	7.11	0.25
42:48:40	368.10	359.59	8.51	0.30	7.13	0.25

0+80.0	5.0 m					Test #6
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
43:48:40	368.82	360.87	7.94	0.28	7.85	0.27
44:48:40	367.83	360.15	7.68	0.27	6.87	0.24
45:48:40	368.14	360.47	7.67	0.27	7.17	0.25
46:48:40	367.34	359.71	7.64	0.27	6.38	0.22
47:48:40	367.48	359.52	7.96	0.28	6.51	0.23
49:48:40	367.29	360.47	6.83	0.24	6.33	0.22
51:48:40	366.41	360.11	6.29	0.22	5.44	0.19
53:48:40	366.47	360.30	6.17	0.22	5.51	0.19
55:48:40	366.12	361.27	4.84	0.17	5.15	0.18
57:48:40	365.84	360.29	5.55	0.19	4.87	0.17
59:48:40	365.47	361.03	4.43	0.15	4.50	0.16
61:48:40	365.04	360.81	4.23	0.15	4.08	0.14
63:48:40	364.40	360.51	3.89	0.14	3.43	0.12
65:48:40	363.27	360.04	3.24	0.11	2.30	0.08
67:48:40	363.67	360.55	3.12	0.11	2.70	0.09
69:48:40	363.36	360.11	3.25	0.11	2.40	0.08
71:48:40	363.23	360.10	3.13	0.11	2.26	0.08
73:48:40	363.31	360.76	2.55	0.09	2.34	0.08
75:48:40	362.50	361.19	1.31	0.05	1.54	0.05
77:48:40	361.88	359.79	2.09	0.07	0.91	0.03
79:48:40	361.34	359.70	1.64	0.06	0.37	0.01
81:48:40	360.98	359.18	1.79	0.06	0.01	0.00
83:48:40	360.02	358.64	1.38	0.05	-0.94	-0.03
85:48:40	360.39	358.96	1.43	0.05	-0.57	-0.02
87:48:40	360.41	359.51	0.90	0.03	-0.56	-0.02
89:48:40	359.03	358.43	0.60	0.02	-1.94	-0.07
91:48:40	359.07	358.08	0.99	0.03	-1.90	-0.07
93:48:40	366.08	358.25	7.84	0.27	5.12	0.18
95:48:40	370.40	358.28	12.11	0.42	9.43	0.33

Test Location (m)	**0+80.0**	**Effective Stress on date of test (kPa)**	**9.3**
Depth (m)	5.0	**Test # in well**	7
Well #	9	**Test Type**	Rate of Fall
Start Date of Test	11/8/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	356.9
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	49.3/52.5
$k_{adj.}$ (cm/s)	3.28E-07	**k_{static} (cm/s)**	2.76E-07





0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	409.38	359.95	49.43	1.00	52.49	1.00
0:00:10	409.40	359.95	49.45	1.00	52.51	1.00
0:00:20	409.38	359.95	49.43	1.00	52.49	1.00
0:00:30	409.34	359.95	49.40	1.00	52.45	1.00
0:00:40	409.33	359.95	49.38	1.00	52.44	1.00
0:00:50	409.34	359.95	49.40	1.00	52.45	1.00
0:01:00	409.33	359.95	49.38	1.00	52.44	1.00
0:01:10	409.29	359.95	49.34	1.00	52.40	1.00
0:01:20	409.28	359.95	49.33	1.00	52.39	1.00
0:01:30	409.25	359.95	49.31	1.00	52.37	1.00
0:01:40	409.28	359.95	49.33	1.00	52.39	1.00
0:02:10	409.17	359.95	49.22	1.00	52.28	1.00
0:02:40	409.11	359.95	49.16	0.99	52.22	0.99
0:03:10	409.06	359.95	49.11	0.99	52.17	0.99
0:03:40	409.05	359.95	49.10	0.99	52.16	0.99
0:04:10	409.01	359.95	49.07	0.99	52.13	0.99
0:04:40	408.96	359.95	49.01	0.99	52.07	0.99
0:05:10	408.94	359.95	48.99	0.99	52.05	0.99
0:05:40	408.93	359.95	48.98	0.99	52.04	0.99
0:06:10	408.88	359.95	48.93	0.99	51.99	0.99
0:06:40	408.82	359.95	48.87	0.99	51.93	0.99
0:07:10	408.74	359.95	48.79	0.99	51.85	0.99
0:07:40	408.76	359.95	48.81	0.99	51.87	0.99
0:08:10	408.67	359.95	48.73	0.99	51.78	0.99
0:08:40	408.65	359.95	48.70	0.99	51.76	0.99
0:09:10	408.62	359.95	48.67	0.98	51.73	0.99
0:09:40	408.55	359.95	48.61	0.98	51.66	0.98
0:10:10	408.53	359.95	48.58	0.98	51.64	0.98
0:10:40	408.50	359.95	48.55	0.98	51.61	0.98
0:11:10	408.42	359.95	48.47	0.98	51.53	0.98
0:11:40	408.41	359.95	48.46	0.98	51.52	0.98
0:12:10	408.39	359.95	48.44	0.98	51.50	0.98
0:12:40	408.35	359.95	48.41	0.98	51.47	0.98
0:13:10	408.28	359.95	48.33	0.98	51.39	0.98
0:13:40	408.28	359.95	48.33	0.98	51.39	0.98
0:14:10	408.24	359.95	48.30	0.98	51.36	0.98
0:14:40	408.18	359.95	48.23	0.98	51.29	0.98
0:15:10	408.18	359.95	48.23	0.98	51.29	0.98
0:15:40	408.16	359.95	48.21	0.98	51.27	0.98
0:16:10	408.16	359.95	48.21	0.98	51.27	0.98
0:16:40	408.10	359.95	48.15	0.97	51.21	0.98
0:17:10	408.07	359.95	48.12	0.97	51.18	0.98
0:17:40	408.09	359.95	48.14	0.97	51.20	0.98
0:18:10	408.07	359.95	48.12	0.97	51.18	0.98
0:18:40	408.00	359.95	48.06	0.97	51.12	0.97
0:19:10	408.01	359.95	48.07	0.97	51.13	0.97
0:19:40	408.00	359.95	48.06	0.97	51.12	0.97
0:20:10	407.96	359.95	48.01	0.97	51.07	0.97
0:20:40	407.93	359.95	47.98	0.97	51.04	0.97
0:21:10	407.92	359.95	47.97	0.97	51.03	0.97

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:21:40	407.87	359.95	47.92	0.97	50.98	0.97
0:22:10	407.84	359.95	47.89	0.97	50.95	0.97
0:22:40	407.80	359.95	47.86	0.97	50.92	0.97
0:23:10	407.83	359.95	47.88	0.97	50.94	0.97
0:23:40	407.78	359.95	47.84	0.97	50.90	0.97
0:24:10	407.77	359.95	47.83	0.97	50.88	0.97
0:24:40	407.74	359.95	47.79	0.97	50.85	0.97
0:25:10	407.70	359.95	47.75	0.97	50.81	0.97
0:25:40	407.70	359.95	47.75	0.97	50.81	0.97
0:26:10	407.66	359.95	47.71	0.97	50.77	0.97
0:26:40	407.61	359.95	47.66	0.96	50.72	0.97
0:27:10	407.64	359.95	47.69	0.96	50.75	0.97
0:27:40	407.61	359.95	47.66	0.96	50.72	0.97
0:28:10	407.57	359.95	47.63	0.96	50.69	0.97
0:28:40	407.52	359.95	47.57	0.96	50.63	0.96
0:29:10	407.46	359.95	47.52	0.96	50.58	0.96
0:29:40	407.49	359.95	47.54	0.96	50.60	0.96
0:30:10	407.45	359.95	47.51	0.96	50.57	0.96
0:30:40	407.42	359.95	47.47	0.96	50.53	0.96
0:31:10	407.38	359.95	47.43	0.96	50.49	0.96
0:31:40	407.40	359.95	47.45	0.96	50.51	0.96
0:32:10	407.37	359.95	47.42	0.96	50.48	0.96
0:32:40	407.32	359.95	47.38	0.96	50.43	0.96
0:33:10	407.29	359.95	47.34	0.96	50.40	0.96
0:33:40	407.29	359.95	47.34	0.96	50.40	0.96
0:34:10	407.29	359.95	47.34	0.96	50.40	0.96
0:34:40	407.23	359.95	47.29	0.96	50.35	0.96
0:35:10	407.23	359.95	47.29	0.96	50.35	0.96
0:35:40	407.23	359.95	47.29	0.96	50.35	0.96
0:36:10	407.20	359.95	47.25	0.96	50.31	0.96
0:36:40	407.20	359.95	47.25	0.96	50.31	0.96
0:37:10	407.17	359.95	47.22	0.96	50.28	0.96
0:37:40	407.17	359.95	47.22	0.96	50.28	0.96
0:38:10	407.15	359.95	47.20	0.95	50.26	0.96
0:38:40	407.15	359.95	47.20	0.95	50.26	0.96
0:39:10	407.11	359.95	47.17	0.95	50.23	0.96
0:39:40	407.10	359.95	47.16	0.95	50.21	0.96
0:40:10	407.08	359.95	47.13	0.95	50.19	0.96
0:40:40	407.08	359.95	47.13	0.95	50.19	0.96
0:41:10	407.03	359.95	47.08	0.95	50.14	0.96
0:41:40	407.03	359.95	47.08	0.95	50.14	0.96
0:42:10	407.01	359.95	47.07	0.95	50.13	0.96
0:42:40	406.97	359.95	47.02	0.95	50.08	0.95
0:43:10	406.94	359.95	46.99	0.95	50.05	0.95
0:43:40	406.94	359.95	46.99	0.95	50.05	0.95
0:44:10	406.88	359.95	46.94	0.95	49.99	0.95
0:44:40	406.85	359.95	46.90	0.95	49.96	0.95
0:45:10	406.87	359.95	46.93	0.95	49.98	0.95
0:45:40	406.85	359.95	46.90	0.95	49.96	0.95
0:46:10	406.82	359.95	46.87	0.95	49.93	0.95

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:46:40	406.82	359.95	46.87	0.95	49.93	0.95
0:47:10	406.82	359.95	46.87	0.95	49.93	0.95
0:47:40	406.74	359.95	46.79	0.95	49.85	0.95
0:48:10	406.74	359.95	46.79	0.95	49.85	0.95
0:48:40	406.73	359.95	46.78	0.95	49.84	0.95
0:49:10	406.71	359.95	46.76	0.95	49.82	0.95
0:49:40	406.67	359.95	46.73	0.95	49.79	0.95
0:50:10	406.70	359.95	46.75	0.95	49.81	0.95
0:50:40	406.64	359.95	46.69	0.94	49.75	0.95
0:51:10	406.64	359.95	46.69	0.94	49.75	0.95
0:51:40	406.59	359.95	46.64	0.94	49.70	0.95
0:52:10	406.60	359.95	46.65	0.94	49.71	0.95
0:52:40	406.56	359.95	46.62	0.94	49.68	0.95
0:53:10	406.53	359.95	46.59	0.94	49.64	0.95
0:53:40	406.53	359.95	46.59	0.94	49.64	0.95
0:54:10	406.51	359.95	46.56	0.94	49.62	0.95
0:54:40	406.48	359.95	46.53	0.94	49.59	0.94
0:55:10	406.50	359.95	46.55	0.94	49.61	0.95
0:55:40	406.48	359.95	46.53	0.94	49.59	0.94
0:56:10	406.44	359.95	46.50	0.94	49.56	0.94
0:56:40	406.42	359.95	46.48	0.94	49.53	0.94
0:57:10	406.42	359.95	46.48	0.94	49.53	0.94
0:57:40	406.39	359.95	46.44	0.94	49.50	0.94
0:58:10	406.38	359.95	46.43	0.94	49.49	0.94
0:58:40	406.39	359.95	46.44	0.94	49.50	0.94
0:59:10	406.36	359.95	46.41	0.94	49.47	0.94
0:59:40	406.36	359.95	46.41	0.94	49.47	0.94
1:00:10	406.36	359.89	46.47	0.94	49.47	0.94
1:00:40	406.33	359.89	46.45	0.94	49.45	0.94
1:01:10	406.32	359.89	46.43	0.94	49.44	0.94
1:01:40	406.30	359.89	46.41	0.94	49.41	0.94
1:02:10	406.32	359.89	46.43	0.94	49.44	0.94
1:02:40	406.30	359.89	46.41	0.94	49.41	0.94
1:03:10	406.25	359.89	46.36	0.94	49.36	0.94
1:03:40	406.24	359.89	46.35	0.94	49.35	0.94
1:04:10	406.21	359.89	46.33	0.94	49.33	0.94
1:04:40	406.24	359.89	46.35	0.94	49.35	0.94
1:05:10	406.21	359.89	46.33	0.94	49.33	0.94
1:05:40	406.18	359.89	46.29	0.94	49.29	0.94
1:06:10	406.19	359.89	46.30	0.94	49.30	0.94
1:06:40	406.19	359.89	46.30	0.94	49.30	0.94
1:07:10	406.15	359.89	46.26	0.94	49.26	0.94
1:07:40	406.15	359.89	46.26	0.94	49.26	0.94
1:08:10	406.13	359.89	46.24	0.94	49.24	0.94
1:08:40	406.09	359.89	46.20	0.93	49.21	0.94
1:09:10	406.10	359.89	46.21	0.93	49.22	0.94
1:09:40	406.09	359.89	46.20	0.93	49.21	0.94
1:10:10	406.02	359.89	46.13	0.93	49.13	0.94
1:10:40	406.04	359.89	46.15	0.93	49.15	0.94
1:11:10	405.98	359.89	46.09	0.93	49.10	0.94

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:11:40	405.98	359.89	46.09	0.93	49.10	0.94
1:12:10	405.95	359.89	46.06	0.93	49.06	0.93
1:12:40	405.93	359.89	46.04	0.93	49.04	0.93
1:13:10	405.93	359.89	46.04	0.93	49.04	0.93
1:13:40	405.92	359.89	46.03	0.93	49.03	0.93
1:14:10	405.92	359.89	46.03	0.93	49.03	0.93
1:14:40	405.87	359.89	45.98	0.93	48.99	0.93
1:15:10	405.86	359.89	45.97	0.93	48.97	0.93
1:15:40	405.86	359.89	45.97	0.93	48.97	0.93
1:16:10	405.84	359.89	45.95	0.93	48.95	0.93
1:16:40	405.86	359.89	45.97	0.93	48.97	0.93
1:17:10	405.83	359.89	45.94	0.93	48.94	0.93
1:17:40	405.83	359.89	45.94	0.93	48.94	0.93
1:18:10	405.81	359.89	45.92	0.93	48.92	0.93
1:18:40	405.79	359.89	45.90	0.93	48.90	0.93
1:19:10	405.77	359.89	45.89	0.93	48.89	0.93
1:19:40	405.74	359.89	45.85	0.93	48.85	0.93
1:20:10	405.75	359.89	45.86	0.93	48.87	0.93
1:20:40	405.72	359.89	45.83	0.93	48.83	0.93
1:21:10	405.72	359.89	45.83	0.93	48.83	0.93
1:21:40	405.69	359.89	45.80	0.93	48.80	0.93
1:22:10	405.69	359.89	45.80	0.93	48.80	0.93
1:22:40	405.63	359.89	45.74	0.93	48.74	0.93
1:23:10	405.63	359.89	45.74	0.93	48.74	0.93
1:23:40	405.60	359.89	45.71	0.92	48.71	0.93
1:24:10	405.60	359.89	45.71	0.92	48.71	0.93
1:24:40	405.58	359.89	45.69	0.92	48.69	0.93
1:25:10	405.55	359.89	45.67	0.92	48.67	0.93
1:25:40	405.55	359.89	45.67	0.92	48.67	0.93
1:26:10	405.52	359.89	45.63	0.92	48.63	0.93
1:26:40	405.51	359.89	45.62	0.92	48.62	0.93
1:27:10	405.49	359.89	45.60	0.92	48.60	0.93
1:27:40	405.47	359.89	45.58	0.92	48.58	0.93
1:28:10	405.46	359.89	45.57	0.92	48.57	0.93
1:28:40	405.43	359.89	45.55	0.92	48.55	0.92
1:29:10	405.42	359.89	45.53	0.92	48.53	0.92
1:29:40	405.38	359.89	45.49	0.92	48.49	0.92
1:30:10	405.35	359.89	45.46	0.92	48.46	0.92
1:30:40	405.34	359.89	45.45	0.92	48.45	0.92
1:31:10	405.31	359.89	45.42	0.92	48.43	0.92
1:31:40	405.28	359.89	45.39	0.92	48.39	0.92
1:32:40	405.20	359.89	45.32	0.92	48.32	0.92
1:33:40	405.20	359.89	45.32	0.92	48.32	0.92
1:34:40	405.17	359.89	45.28	0.92	48.28	0.92
1:35:40	405.12	359.89	45.23	0.91	48.23	0.92
1:36:40	405.08	359.89	45.19	0.91	48.20	0.92
1:37:40	405.03	359.89	45.14	0.91	48.14	0.92
1:38:40	405.02	359.89	45.13	0.91	48.13	0.92
1:39:40	404.94	359.89	45.05	0.91	48.05	0.92
1:40:40	404.91	359.89	45.02	0.91	48.02	0.91

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:41:40	404.87	359.89	44.99	0.91	47.99	0.91
1:42:40	404.85	359.89	44.96	0.91	47.96	0.91
1:43:40	404.80	359.89	44.91	0.91	47.91	0.91
1:44:40	404.74	359.89	44.85	0.91	47.85	0.91
1:45:40	404.71	359.89	44.82	0.91	47.82	0.91
1:46:40	404.70	359.89	44.81	0.91	47.81	0.91
1:47:40	404.64	359.89	44.75	0.91	47.76	0.91
1:48:40	404.64	359.89	44.75	0.91	47.76	0.91
1:49:40	404.62	359.89	44.73	0.91	47.73	0.91
1:50:40	404.62	359.89	44.73	0.91	47.73	0.91
1:51:40	404.56	359.89	44.67	0.90	47.67	0.91
1:52:40	404.53	359.89	44.65	0.90	47.65	0.91
1:53:40	404.48	359.89	44.59	0.90	47.59	0.91
1:54:40	404.45	359.89	44.56	0.90	47.56	0.91
1:55:40	404.43	359.89	44.54	0.90	47.54	0.91
1:56:40	404.39	359.89	44.50	0.90	47.50	0.91
1:57:40	404.34	359.89	44.45	0.90	47.45	0.90
1:58:40	404.30	359.89	44.42	0.90	47.42	0.90
1:59:40	404.30	359.89	44.42	0.90	47.42	0.90
2:00:40	404.27	359.87	44.40	0.90	47.38	0.90
2:01:40	404.25	359.87	44.38	0.90	47.36	0.90
2:02:40	404.24	359.87	44.37	0.90	47.35	0.90
2:03:40	404.24	359.87	44.37	0.90	47.35	0.90
2:04:40	404.22	359.87	44.34	0.90	47.33	0.90
2:05:40	404.18	359.87	44.31	0.90	47.30	0.90
2:06:40	404.15	359.87	44.28	0.90	47.26	0.90
2:07:40	404.10	359.87	44.22	0.89	47.21	0.90
2:08:40	404.07	359.87	44.20	0.89	47.19	0.90
2:09:40	404.07	359.87	44.20	0.89	47.19	0.90
2:10:40	404.01	359.87	44.14	0.89	47.12	0.90
2:11:40	403.99	359.87	44.11	0.89	47.10	0.90
2:12:40	403.96	359.87	44.09	0.89	47.08	0.90
2:13:40	403.90	359.87	44.03	0.89	47.01	0.90
2:14:40	403.88	359.87	44.00	0.89	46.99	0.90
2:15:40	403.82	359.87	43.95	0.89	46.93	0.89
2:16:40	403.81	359.87	43.94	0.89	46.92	0.89
2:17:40	403.78	359.87	43.90	0.89	46.89	0.89
2:18:40	403.72	359.87	43.85	0.89	46.83	0.89
2:19:40	403.69	359.87	43.82	0.89	46.80	0.89
2:20:40	403.63	359.87	43.76	0.89	46.75	0.89
2:21:40	403.61	359.87	43.74	0.88	46.72	0.89
2:22:40	403.56	359.87	43.69	0.88	46.67	0.89
2:23:40	403.52	359.87	43.65	0.88	46.64	0.89
2:24:40	403.49	359.87	43.62	0.88	46.60	0.89
2:25:40	403.46	359.87	43.59	0.88	46.57	0.89
2:26:40	403.46	359.87	43.59	0.88	46.57	0.89
2:27:40	403.40	359.87	43.53	0.88	46.52	0.89
2:28:40	403.40	359.87	43.53	0.88	46.52	0.89
2:29:40	403.38	359.87	43.51	0.88	46.49	0.89
2:30:40	403.38	359.87	43.51	0.88	46.49	0.89

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:31:40	403.33	359.87	43.46	0.88	46.44	0.88
2:32:40	403.32	359.87	43.44	0.88	46.43	0.88
2:33:40	403.24	359.87	43.37	0.88	46.35	0.88
2:34:40	403.23	359.87	43.36	0.88	46.34	0.88
2:35:40	403.15	359.87	43.28	0.88	46.26	0.88
2:36:40	403.10	359.87	43.22	0.87	46.21	0.88
2:37:40	403.09	359.87	43.21	0.87	46.20	0.88
2:38:40	403.04	359.87	43.17	0.87	46.15	0.88
2:39:40	403.00	359.87	43.13	0.87	46.11	0.88
2:40:40	402.95	359.87	43.08	0.87	46.07	0.88
2:41:40	402.92	359.87	43.05	0.87	46.03	0.88
2:42:40	402.89	359.87	43.02	0.87	46.00	0.88
2:43:40	402.87	359.87	42.99	0.87	45.98	0.88
2:44:40	402.85	359.87	42.98	0.87	45.97	0.88
2:45:40	402.83	359.87	42.96	0.87	45.95	0.88
2:46:40	402.80	359.87	42.93	0.87	45.91	0.87
2:47:40	402.75	359.87	42.87	0.87	45.86	0.87
2:48:40	402.72	359.87	42.85	0.87	45.84	0.87
2:49:40	402.69	359.87	42.82	0.87	45.80	0.87
2:50:40	402.68	359.87	42.81	0.87	45.79	0.87
2:51:40	402.68	359.87	42.81	0.87	45.79	0.87
2:52:40	402.60	359.87	42.73	0.86	45.72	0.87
2:53:40	402.60	359.87	42.73	0.86	45.72	0.87
2:54:40	402.57	359.87	42.70	0.86	45.68	0.87
2:55:40	402.57	359.87	42.70	0.86	45.68	0.87
2:56:40	402.57	359.87	42.70	0.86	45.68	0.87
2:57:40	402.52	359.87	42.64	0.86	45.63	0.87
2:58:40	402.52	359.87	42.64	0.86	45.63	0.87
2:59:40	402.45	359.87	42.58	0.86	45.56	0.87
3:00:40	402.43	360.05	42.38	0.86	45.54	0.87
3:01:40	402.37	360.05	42.33	0.86	45.48	0.87
3:02:40	402.32	360.05	42.27	0.86	45.43	0.87
3:03:40	402.28	360.05	42.24	0.85	45.40	0.86
3:04:40	402.20	360.05	42.15	0.85	45.31	0.86
3:05:40	402.19	360.05	42.14	0.85	45.30	0.86
3:06:40	402.13	360.05	42.08	0.85	45.24	0.86
3:07:40	402.13	360.05	42.08	0.85	45.24	0.86
3:08:40	402.08	360.05	42.03	0.85	45.19	0.86
3:09:40	402.05	360.05	42.01	0.85	45.17	0.86
3:10:40	402.04	360.05	42.00	0.85	45.15	0.86
3:11:40	402.02	360.05	41.97	0.85	45.13	0.86
3:12:40	402.02	360.05	41.97	0.85	45.13	0.86
3:13:40	402.00	360.05	41.95	0.85	45.11	0.86
3:14:40	401.97	360.05	41.92	0.85	45.08	0.86
3:15:40	401.93	360.05	41.89	0.85	45.05	0.86
3:16:40	401.88	360.05	41.83	0.85	44.99	0.86
3:17:40	401.87	360.05	41.82	0.85	44.98	0.86
3:18:40	401.82	360.05	41.78	0.85	44.94	0.86
3:19:40	401.79	360.05	41.74	0.84	44.90	0.86
3:20:40	401.76	360.05	41.71	0.84	44.87	0.85

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:21:40	401.70	360.05	41.66	0.84	44.81	0.85
3:22:40	401.68	360.05	41.63	0.84	44.79	0.85
3:23:40	401.67	360.05	41.62	0.84	44.78	0.85
3:24:40	401.61	360.05	41.57	0.84	44.73	0.85
3:25:40	401.64	360.05	41.59	0.84	44.75	0.85
3:26:40	401.58	360.05	41.53	0.84	44.69	0.85
3:27:40	401.55	360.05	41.50	0.84	44.66	0.85
3:28:40	401.51	360.05	41.46	0.84	44.62	0.85
3:29:40	401.45	360.05	41.40	0.84	44.56	0.85
3:30:40	401.41	360.05	41.36	0.84	44.52	0.85
3:31:40	401.36	360.05	41.32	0.84	44.48	0.85
3:32:40	401.35	360.05	41.30	0.84	44.46	0.85
3:33:40	401.32	360.05	41.27	0.83	44.43	0.85
3:34:40	401.32	360.05	41.27	0.83	44.43	0.85
3:35:40	401.26	360.05	41.22	0.83	44.38	0.85
3:36:40	401.30	360.05	41.25	0.83	44.41	0.85
3:37:40	401.28	360.05	41.23	0.83	44.39	0.85
3:38:40	401.26	360.05	41.22	0.83	44.38	0.85
3:39:40	401.24	360.05	41.19	0.83	44.35	0.85
3:40:40	401.19	360.05	41.14	0.83	44.30	0.84
3:41:40	401.18	360.05	41.13	0.83	44.29	0.84
3:42:40	401.13	360.05	41.09	0.83	44.24	0.84
3:43:40	401.12	360.05	41.07	0.83	44.23	0.84
3:44:40	401.10	360.05	41.05	0.83	44.21	0.84
3:45:40	401.07	360.05	41.02	0.83	44.18	0.84
3:46:40	401.07	360.05	41.02	0.83	44.18	0.84
3:47:40	401.03	360.05	40.99	0.83	44.15	0.84
3:48:40	401.03	360.05	40.99	0.83	44.15	0.84
3:49:40	401.00	360.05	40.95	0.83	44.11	0.84
3:50:40	400.98	360.05	40.93	0.83	44.09	0.84
3:51:40	400.92	360.05	40.88	0.83	44.04	0.84
3:52:40	400.90	360.05	40.85	0.83	44.01	0.84
3:53:40	400.89	360.05	40.84	0.83	44.00	0.84
3:54:40	400.84	360.05	40.79	0.83	43.95	0.84
3:55:40	400.80	360.05	40.76	0.82	43.91	0.84
3:56:40	400.80	360.05	40.76	0.82	43.91	0.84
3:57:40	400.77	360.05	40.72	0.82	43.88	0.84
3:58:40	400.73	360.05	40.68	0.82	43.84	0.84
3:59:40	400.71	360.05	40.67	0.82	43.83	0.83
4:00:40	400.66	360.46	40.20	0.81	43.77	0.83
4:01:40	400.64	360.46	40.18	0.81	43.75	0.83
4:02:40	400.63	360.46	40.17	0.81	43.74	0.83
4:03:40	400.57	360.46	40.12	0.81	43.68	0.83
4:04:40	400.54	360.46	40.08	0.81	43.65	0.83
4:05:40	400.50	360.46	40.04	0.81	43.61	0.83
4:06:40	400.45	360.46	40.00	0.81	43.56	0.83
4:07:40	400.41	360.46	39.95	0.81	43.52	0.83
4:08:40	400.34	360.46	39.89	0.81	43.45	0.83
4:09:40	400.31	360.46	39.85	0.81	43.42	0.83
4:10:40	400.29	360.46	39.83	0.81	43.40	0.83

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
4:11:40	400.25	360.46	39.80	0.81	43.37	0.83
4:12:40	400.23	360.46	39.78	0.80	43.34	0.83
4:13:40	400.18	360.46	39.72	0.80	43.29	0.82
4:14:40	400.14	360.46	39.69	0.80	43.26	0.82
4:15:40	400.13	360.46	39.68	0.80	43.25	0.82
4:16:40	400.11	360.46	39.66	0.80	43.22	0.82
4:17:40	400.11	360.46	39.66	0.80	43.22	0.82
4:18:40	400.09	360.46	39.63	0.80	43.20	0.82
4:19:40	400.09	360.46	39.63	0.80	43.20	0.82
4:20:40	400.06	360.46	39.60	0.80	43.17	0.82
4:21:40	400.08	360.46	39.62	0.80	43.19	0.82
4:22:40	400.08	360.46	39.62	0.80	43.19	0.82
4:23:40	400.06	360.46	39.60	0.80	43.17	0.82
4:24:40	400.05	360.46	39.59	0.80	43.16	0.82
4:25:40	400.00	360.46	39.55	0.80	43.11	0.82
4:26:40	400.00	360.46	39.55	0.80	43.11	0.82
4:27:40	399.95	360.46	39.49	0.80	43.06	0.82
4:28:40	399.94	360.46	39.48	0.80	43.05	0.82
4:29:40	399.91	360.46	39.46	0.80	43.03	0.82
4:30:40	399.88	360.46	39.42	0.80	42.99	0.82
4:31:40	399.86	360.46	39.40	0.80	42.97	0.82
4:32:40	399.85	360.46	39.39	0.80	42.96	0.82
4:33:40	399.80	360.46	39.35	0.80	42.92	0.82
4:34:40	399.72	360.46	39.26	0.79	42.83	0.82
4:35:40	399.68	360.46	39.23	0.79	42.80	0.82
4:36:40	399.65	360.46	39.19	0.79	42.76	0.81
4:37:40	399.56	360.46	39.11	0.79	42.67	0.81
4:38:40	399.56	360.46	39.11	0.79	42.67	0.81
4:39:40	399.50	360.46	39.04	0.79	42.61	0.81
4:40:40	399.50	360.46	39.04	0.79	42.61	0.81
4:41:40	399.51	360.46	39.05	0.79	42.62	0.81
4:42:40	399.51	360.46	39.05	0.79	42.62	0.81
4:43:40	399.47	360.46	39.02	0.79	42.59	0.81
4:44:40	399.44	360.46	38.99	0.79	42.55	0.81
4:45:40	399.44	360.46	38.99	0.79	42.55	0.81
4:46:40	399.42	360.46	38.96	0.79	42.53	0.81
4:47:40	399.39	360.46	38.93	0.79	42.50	0.81
4:48:40	399.33	360.46	38.88	0.79	42.44	0.81
4:49:40	399.33	360.46	38.88	0.79	42.44	0.81
4:50:40	399.33	360.46	38.88	0.79	42.44	0.81
4:51:40	399.30	360.46	38.84	0.79	42.41	0.81
4:52:40	399.28	360.46	38.82	0.79	42.39	0.81
4:53:40	399.19	360.46	38.73	0.78	42.30	0.81
4:54:40	399.19	360.46	38.73	0.78	42.30	0.81
4:55:40	399.17	360.46	38.71	0.78	42.28	0.81
4:56:40	399.10	360.46	38.65	0.78	42.21	0.80
4:57:40	399.05	360.46	38.59	0.78	42.16	0.80
4:58:40	398.99	360.46	38.54	0.78	42.10	0.80
4:59:40	398.94	360.46	38.48	0.78	42.05	0.80
5:00:40	397.89	359.61	38.28	0.77	41.00	0.78

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
5:01:40	397.82	359.61	38.21	0.77	40.93	0.78
5:02:40	397.80	359.61	38.19	0.77	40.91	0.78
5:03:40	397.80	359.61	38.19	0.77	40.91	0.78
5:04:40	397.77	359.61	38.17	0.77	40.89	0.78
5:05:40	397.77	359.61	38.17	0.77	40.89	0.78
5:06:40	397.76	359.61	38.16	0.77	40.88	0.78
5:07:40	397.77	359.61	38.17	0.77	40.89	0.78
5:08:40	397.76	359.61	38.16	0.77	40.88	0.78
5:09:40	397.76	359.61	38.16	0.77	40.88	0.78
5:10:40	397.77	359.61	38.17	0.77	40.89	0.78
5:11:40	397.73	359.61	38.13	0.77	40.84	0.78
5:12:40	397.73	359.61	38.13	0.77	40.84	0.78
5:13:40	397.69	359.61	38.08	0.77	40.80	0.78
5:14:40	397.68	359.61	38.07	0.77	40.79	0.78
5:15:40	397.64	359.61	38.04	0.77	40.76	0.78
5:16:40	397.64	359.61	38.04	0.77	40.76	0.78
5:17:40	397.62	359.61	38.02	0.77	40.73	0.78
5:18:40	397.62	359.61	38.02	0.77	40.73	0.78
5:19:40	397.59	359.61	37.98	0.77	40.70	0.78
5:20:40	397.54	359.61	37.94	0.77	40.66	0.77
5:21:40	397.53	359.61	37.93	0.77	40.65	0.77
5:22:40	397.53	359.61	37.93	0.77	40.65	0.77
5:23:40	397.48	359.61	37.87	0.77	40.59	0.77
5:24:40	397.46	359.61	37.85	0.77	40.57	0.77
5:25:40	397.45	359.61	37.84	0.77	40.56	0.77
5:26:40	397.42	359.61	37.82	0.77	40.54	0.77
5:27:40	397.37	359.61	37.76	0.76	40.48	0.77
5:28:40	397.34	359.61	37.73	0.76	40.45	0.77
5:29:40	397.31	359.61	37.71	0.76	40.43	0.77
5:30:40	397.34	359.61	37.73	0.76	40.45	0.77
5:31:40	397.28	359.61	37.68	0.76	40.39	0.77
5:41:40	397.16	359.61	37.56	0.76	40.27	0.77
5:51:40	396.88	359.61	37.27	0.75	39.99	0.76
6:01:40	396.72	359.61	37.12	0.75	39.83	0.76
6:11:40	396.47	359.61	36.86	0.75	39.58	0.75
6:21:40	396.17	359.61	36.57	0.74	39.28	0.75
6:31:40	395.80	359.61	36.19	0.73	38.91	0.74
6:41:40	395.43	359.61	35.82	0.72	38.54	0.73
6:51:40	395.12	359.61	35.51	0.72	38.23	0.73
7:01:40	394.97	359.58	35.39	0.72	38.08	0.73
7:11:40	394.79	359.58	35.21	0.71	37.90	0.72
7:21:40	394.54	359.58	34.96	0.71	37.65	0.72
7:31:40	394.15	359.58	34.58	0.70	37.27	0.71
7:41:40	393.92	359.58	34.35	0.69	37.04	0.71
7:51:40	393.61	359.58	34.03	0.69	36.72	0.70
8:01:40	393.27	359.55	33.72	0.68	36.38	0.69
8:11:40	393.09	359.55	33.54	0.68	36.20	0.69
8:21:40	392.97	359.55	33.42	0.68	36.08	0.69
8:31:40	392.89	359.55	33.34	0.67	36.00	0.69
8:41:40	392.52	359.55	32.97	0.67	35.63	0.68

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
8:51:40	392.29	359.55	32.74	0.66	35.40	0.67
9:01:40	391.97	359.59	32.38	0.66	35.08	0.67
9:11:40	391.94	359.59	32.35	0.65	35.05	0.67
9:21:40	391.77	359.59	32.18	0.65	34.88	0.66
9:31:40	391.60	359.59	32.01	0.65	34.71	0.66
9:41:40	391.48	359.59	31.89	0.65	34.59	0.66
9:51:40	391.17	359.59	31.58	0.64	34.28	0.65
10:01:40	390.96	359.40	31.56	0.64	34.07	0.65
10:11:40	390.80	359.40	31.40	0.64	33.91	0.65
10:21:40	390.53	359.40	31.13	0.63	33.65	0.64
10:31:40	390.15	359.40	30.75	0.62	33.26	0.63
10:41:40	389.92	359.40	30.52	0.62	33.03	0.63
10:51:40	389.69	359.40	30.29	0.61	32.80	0.62
11:01:40	390.56	360.23	30.34	0.61	33.68	0.64
11:11:40	390.48	360.23	30.25	0.61	33.59	0.64
11:21:40	390.26	360.23	30.03	0.61	33.37	0.64
11:31:40	390.30	360.23	30.08	0.61	33.41	0.64
11:41:40	390.10	360.23	29.88	0.60	33.22	0.63
11:51:40	389.91	360.23	29.68	0.60	33.02	0.63
12:01:40	389.62	360.16	29.46	0.60	32.73	0.62
12:11:40	389.41	360.16	29.25	0.59	32.52	0.62
12:21:40	389.30	360.16	29.14	0.59	32.42	0.62
12:31:40	389.13	360.16	28.97	0.59	32.24	0.61
12:41:40	388.87	360.16	28.72	0.58	31.99	0.61
12:51:40	388.84	360.16	28.68	0.58	31.95	0.61
13:01:40	388.79	360.11	28.68	0.58	31.90	0.61
13:11:40	388.44	360.11	28.33	0.57	31.55	0.60
13:21:40	388.27	360.11	28.17	0.57	31.38	0.60
13:31:40	388.09	360.11	27.98	0.57	31.20	0.59
13:41:40	387.78	360.11	27.67	0.56	30.89	0.59
13:51:40	387.62	360.11	27.52	0.56	30.74	0.59
14:01:40	387.48	359.99	27.49	0.56	30.59	0.58
14:11:40	387.35	359.99	27.36	0.55	30.46	0.58
14:21:40	387.20	359.99	27.20	0.55	30.31	0.58
14:31:40	387.30	359.99	27.30	0.55	30.41	0.58
14:41:40	387.05	359.99	27.06	0.55	30.17	0.57
14:51:40	386.88	359.99	26.89	0.54	29.99	0.57
15:01:40	386.86	359.98	26.88	0.54	29.97	0.57
15:11:40	386.65	359.98	26.67	0.54	29.76	0.57
15:21:40	386.51	359.98	26.53	0.54	29.62	0.56
15:31:40	386.37	359.98	26.39	0.53	29.49	0.56
15:41:40	386.13	359.98	26.15	0.53	29.24	0.56
15:51:40	385.68	359.98	25.70	0.52	28.80	0.55
16:01:40	385.35	359.94	25.42	0.51	28.47	0.54
16:11:40	385.22	359.94	25.29	0.51	28.33	0.54
16:21:40	384.87	359.94	24.93	0.50	27.98	0.53
16:31:40	384.66	359.94	24.72	0.50	27.77	0.53
16:41:40	384.38	359.94	24.44	0.49	27.49	0.52
16:51:40	384.23	359.94	24.30	0.49	27.35	0.52
17:01:40	384.01	359.85	24.16	0.49	27.13	0.52

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
17:11:40	383.77	359.85	23.92	0.48	26.89	0.51
17:21:40	383.50	359.85	23.65	0.48	26.61	0.51
17:31:40	383.13	359.85	23.27	0.47	26.24	0.50
17:41:40	383.04	359.85	23.19	0.47	26.15	0.50
17:51:40	382.81	359.85	22.95	0.46	25.92	0.49
18:01:40	382.44	359.93	22.51	0.46	25.55	0.49
18:11:40	382.19	359.93	22.27	0.45	25.31	0.48
18:21:40	381.80	359.93	21.87	0.44	24.91	0.47
18:31:40	381.59	359.93	21.66	0.44	24.70	0.47
18:41:40	381.32	359.93	21.39	0.43	24.43	0.47
18:51:40	381.04	359.93	21.11	0.43	24.15	0.46
19:01:40	380.73	359.52	21.21	0.43	23.85	0.45
19:11:40	380.44	359.52	20.92	0.42	23.55	0.45
19:21:40	380.15	359.52	20.63	0.42	23.27	0.44
19:31:40	379.79	359.52	20.27	0.41	22.90	0.44
19:41:40	379.51	359.52	19.98	0.40	22.62	0.43
19:51:40	379.10	359.52	19.58	0.40	22.21	0.42
20:01:40	379.92	360.09	19.83	0.40	23.03	0.44
20:11:40	379.74	360.09	19.64	0.40	22.85	0.44
20:21:40	379.46	360.09	19.37	0.39	22.57	0.43
20:31:40	379.25	360.09	19.16	0.39	22.37	0.43
20:41:40	378.93	360.09	18.84	0.38	22.05	0.42
20:51:40	378.62	360.09	18.52	0.37	21.73	0.41
21:01:40	379.50	360.51	19.00	0.38	22.62	0.43
21:11:40	379.19	360.51	18.68	0.38	22.30	0.42
21:21:40	379.07	360.51	18.56	0.38	22.18	0.42
21:31:40	378.89	360.51	18.38	0.37	22.00	0.42
21:41:40	378.79	360.51	18.28	0.37	21.90	0.42
21:51:40	378.73	360.51	18.22	0.37	21.84	0.42
22:01:40	379.49	360.75	18.74	0.38	22.60	0.43
22:11:40	379.35	360.75	18.60	0.38	22.46	0.43
22:21:40	379.12	360.75	18.37	0.37	22.23	0.42
22:31:40	378.82	360.75	18.07	0.37	21.94	0.42
22:41:40	378.54	360.75	17.79	0.36	21.65	0.41
22:51:40	378.29	360.75	17.53	0.35	21.40	0.41
23:01:40	379.22	360.93	18.29	0.37	22.33	0.43
23:11:40	379.08	360.93	18.14	0.37	22.19	0.42
23:21:40	379.25	360.93	18.32	0.37	22.36	0.43
23:31:40	379.15	360.93	18.22	0.37	22.26	0.42
23:41:40	379.12	360.93	18.19	0.37	22.23	0.42
23:51:40	379.12	360.93	18.19	0.37	22.23	0.42
24:01:40	380.04	361.29	18.75	0.38	23.15	0.44
24:11:40	379.72	361.29	18.44	0.37	22.83	0.44
24:21:40	379.55	361.29	18.26	0.37	22.66	0.43
24:31:40	379.51	361.29	18.23	0.37	22.63	0.43
24:41:40	379.40	361.29	18.12	0.37	22.52	0.43
24:51:40	379.24	361.29	17.95	0.36	22.35	0.43
25:01:40	380.17	361.90	18.27	0.37	23.28	0.44
25:11:40	379.85	361.90	17.95	0.36	22.96	0.44
25:21:40	379.56	361.90	17.66	0.36	22.67	0.43

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
25:31:40	379.80	361.90	17.90	0.36	22.91	0.44
25:41:40	379.70	361.90	17.80	0.36	22.81	0.43
25:51:40	379.50	361.90	17.60	0.36	22.61	0.43
26:01:40	379.16	361.47	17.69	0.36	22.27	0.42
26:11:40	379.05	361.47	17.58	0.36	22.16	0.42
26:21:40	378.87	361.47	17.39	0.35	21.98	0.42
26:31:40	378.81	361.47	17.34	0.35	21.92	0.42
26:41:40	378.81	361.47	17.34	0.35	21.92	0.42
26:51:40	378.56	361.47	17.09	0.35	21.67	0.41
27:01:40	378.36	361.43	16.94	0.34	21.47	0.41
27:11:40	378.50	361.43	17.08	0.35	21.62	0.41
27:21:40	378.24	361.43	16.81	0.34	21.35	0.41
27:31:40	378.11	361.43	16.68	0.34	21.22	0.40
27:41:40	377.93	361.43	16.51	0.33	21.04	0.40
27:51:40	377.90	361.43	16.47	0.33	21.01	0.40
28:01:40	378.80	362.20	16.60	0.34	21.91	0.42
28:11:40	378.66	362.20	16.46	0.33	21.77	0.41
28:21:40	378.61	362.20	16.41	0.33	21.72	0.41
28:31:40	378.55	362.20	16.35	0.33	21.66	0.41
28:41:40	378.40	362.20	16.20	0.33	21.52	0.41
28:51:40	378.32	362.20	16.12	0.33	21.43	0.41
29:01:40	378.15	361.91	16.24	0.33	21.26	0.41
29:11:40	377.80	361.91	15.89	0.32	20.91	0.40
29:21:40	377.64	361.91	15.72	0.32	20.75	0.40
29:31:40	377.45	361.91	15.54	0.31	20.56	0.39
29:41:40	377.32	361.91	15.40	0.31	20.43	0.39
29:51:40	377.21	361.91	15.29	0.31	20.32	0.39
30:01:40	377.07	361.70	15.37	0.31	20.18	0.38
30:11:40	376.91	361.70	15.21	0.31	20.02	0.38
30:21:40	376.74	361.70	15.04	0.30	19.85	0.38
30:31:40	376.65	361.70	14.95	0.30	19.76	0.38
30:41:40	376.46	361.70	14.76	0.30	19.57	0.37
30:51:40	376.31	361.70	14.61	0.30	19.42	0.37
31:01:40	376.26	361.52	14.74	0.30	19.38	0.37
31:11:40	376.22	361.52	14.70	0.30	19.33	0.37
31:21:40	376.09	361.52	14.57	0.29	19.20	0.37
31:31:40	375.91	361.52	14.39	0.29	19.03	0.36
31:41:40	375.80	361.52	14.28	0.29	18.92	0.36
31:51:40	375.61	361.52	14.08	0.28	18.72	0.36
32:01:40	376.56	362.25	14.31	0.29	19.67	0.37
32:11:40	376.65	362.25	14.40	0.29	19.76	0.38
32:21:40	376.93	362.25	14.69	0.30	20.05	0.38
32:31:40	377.27	362.25	15.03	0.30	20.39	0.39
32:41:40	377.43	362.25	15.18	0.31	20.54	0.39
32:51:40	377.65	362.25	15.40	0.31	20.76	0.40
33:01:40	377.84	361.86	15.98	0.32	20.96	0.40
33:11:40	377.99	361.86	16.12	0.33	21.10	0.40
33:21:40	378.07	361.86	16.21	0.33	21.19	0.40
33:31:40	378.18	361.86	16.32	0.33	21.30	0.41
33:41:40	378.28	361.86	16.42	0.33	21.39	0.41

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
33:51:40	378.34	361.86	16.47	0.33	21.45	0.41
34:01:40	379.41	362.60	16.81	0.34	22.52	0.43
34:11:40	379.52	362.60	16.92	0.34	22.63	0.43
34:21:40	379.61	362.60	17.01	0.34	22.72	0.43
34:31:40	379.79	362.60	17.18	0.35	22.90	0.44
34:41:40	379.86	362.60	17.26	0.35	22.97	0.44
34:51:40	380.01	362.60	17.40	0.35	23.12	0.44
35:01:40	380.16	362.63	17.53	0.35	23.27	0.44
35:11:40	380.27	362.63	17.64	0.36	23.38	0.45
35:21:40	380.59	362.63	17.96	0.36	23.70	0.45
35:31:40	380.78	362.63	18.16	0.37	23.90	0.46
35:41:40	380.96	362.63	18.33	0.37	24.07	0.46
35:51:40	381.30	362.63	18.67	0.38	24.41	0.47
36:01:40	380.42	362.53	17.89	0.36	23.53	0.45
36:11:40	380.65	362.53	18.12	0.37	23.76	0.45
36:21:40	380.72	362.53	18.19	0.37	23.83	0.45
36:31:40	380.95	362.53	18.42	0.37	24.06	0.46
36:41:40	381.23	362.53	18.71	0.38	24.35	0.46
36:51:40	381.40	362.53	18.87	0.38	24.51	0.47
37:01:40	379.50	361.19	18.31	0.37	22.61	0.43
37:11:40	379.68	361.19	18.48	0.37	22.79	0.43
37:21:40	379.85	361.19	18.66	0.38	22.96	0.44
37:31:40	379.94	361.19	18.75	0.38	23.05	0.44
37:41:40	380.14	361.19	18.95	0.38	23.25	0.44
37:51:40	380.26	361.19	19.07	0.39	23.37	0.45
38:01:40	379.37	361.06	18.31	0.37	22.48	0.43
38:11:40	379.60	361.06	18.54	0.38	22.71	0.43
38:21:40	379.86	361.06	18.80	0.38	22.98	0.44
38:31:40	380.04	361.06	18.98	0.38	23.15	0.44
38:41:40	380.06	361.06	19.00	0.38	23.17	0.44
38:51:40	380.10	361.06	19.03	0.39	23.21	0.44
39:01:40	379.15	361.23	17.92	0.36	22.26	0.42
39:11:40	379.22	361.23	17.98	0.36	22.33	0.43
39:21:40	379.44	361.23	18.20	0.37	22.55	0.43
39:31:40	379.62	361.23	18.39	0.37	22.74	0.43
39:41:40	379.68	361.23	18.45	0.37	22.79	0.43
39:51:40	379.79	361.23	18.55	0.38	22.90	0.44
40:01:40	377.90	360.41	17.50	0.35	21.01	0.40
40:11:40	378.18	360.41	17.77	0.36	21.29	0.41
40:21:40	378.23	360.41	17.82	0.36	21.34	0.41
40:31:40	378.42	360.41	18.01	0.36	21.53	0.41
40:41:40	378.46	360.41	18.06	0.37	21.57	0.41
40:51:40	378.62	360.41	18.21	0.37	21.73	0.41
41:01:40	376.58	359.50	17.07	0.35	19.69	0.38
41:11:40	376.66	359.50	17.16	0.35	19.78	0.38
41:21:40	376.71	359.50	17.20	0.35	19.82	0.38
41:31:40	376.69	359.50	17.18	0.35	19.80	0.38
41:41:40	376.86	359.50	17.36	0.35	19.97	0.38
41:51:40	376.94	359.50	17.43	0.35	20.05	0.38
42:01:40	375.79	359.44	16.35	0.33	18.90	0.36

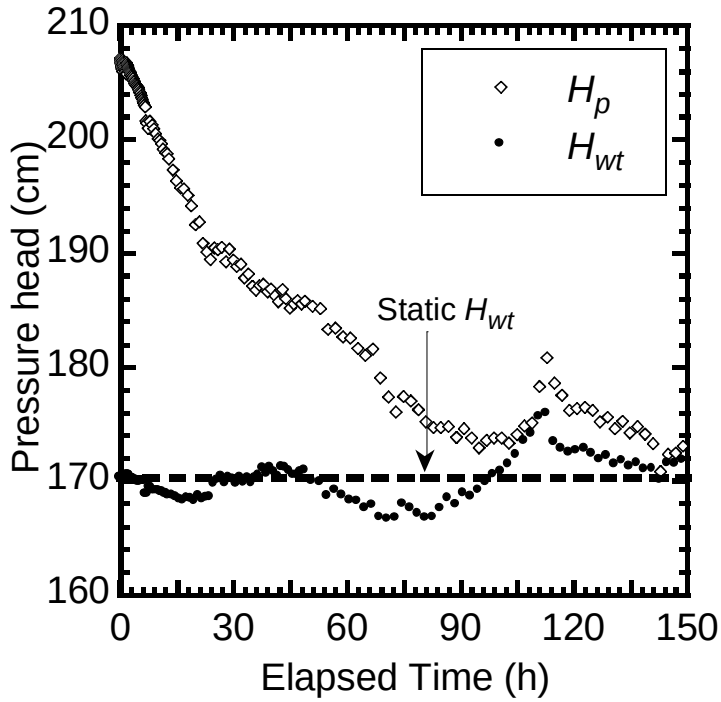
0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
42:11:40	375.78	359.44	16.34	0.33	18.89	0.36
42:21:40	375.69	359.44	16.25	0.33	18.80	0.36
42:31:40	375.52	359.44	16.09	0.33	18.64	0.36
42:41:40	375.35	359.44	15.91	0.32	18.46	0.35
42:51:40	375.26	359.44	15.82	0.32	18.37	0.35
43:01:40	374.04	359.45	14.60	0.30	17.16	0.33
43:11:40	373.93	359.45	14.49	0.29	17.05	0.32
43:21:40	373.81	359.45	14.37	0.29	16.93	0.32
43:31:40	373.69	359.45	14.25	0.29	16.80	0.32
43:41:40	373.67	359.45	14.22	0.29	16.78	0.32
43:51:40	373.65	359.45	14.20	0.29	16.76	0.32
44:01:40	371.54	358.26	13.29	0.27	14.66	0.28
44:11:40	371.43	358.26	13.18	0.27	14.55	0.28
44:21:40	371.40	358.26	13.14	0.27	14.51	0.28
44:31:40	371.32	358.26	13.07	0.26	14.44	0.28
44:41:40	371.37	358.26	13.11	0.27	14.48	0.28
44:51:40	371.26	358.26	13.00	0.26	14.37	0.27
45:01:40	370.27	357.73	12.55	0.25	13.38	0.25
45:11:40	370.26	357.73	12.53	0.25	13.37	0.25
45:21:40	370.26	357.73	12.53	0.25	13.37	0.25
45:31:40	370.35	357.73	12.62	0.26	13.46	0.26
45:41:40	370.29	357.73	12.57	0.25	13.40	0.26
45:51:40	370.40	357.73	12.68	0.26	13.51	0.26
46:01:40	370.47	357.65	12.81	0.26	13.58	0.26
46:11:40	370.58	357.65	12.92	0.26	13.69	0.26
46:21:40	370.77	357.65	13.11	0.27	13.88	0.26
46:31:40	370.84	357.65	13.19	0.27	13.95	0.27
46:41:40	370.95	357.65	13.30	0.27	14.06	0.27
46:51:40	370.98	357.65	13.33	0.27	14.10	0.27
47:01:40	372.12	358.69	13.43	0.27	15.24	0.29
47:11:40	372.34	358.69	13.65	0.28	15.46	0.29
47:21:40	372.44	358.69	13.75	0.28	15.55	0.30
47:31:40	372.57	358.69	13.88	0.28	15.69	0.30
47:41:40	372.63	358.69	13.93	0.28	15.74	0.30
47:51:40	372.73	358.69	14.03	0.28	15.84	0.30
48:01:40	372.93	358.87	14.06	0.28	16.04	0.31
48:11:40	373.04	358.87	14.17	0.29	16.15	0.31
48:21:40	373.21	358.87	14.35	0.29	16.32	0.31
48:31:40	373.29	358.87	14.42	0.29	16.40	0.31
48:41:40	373.50	358.87	14.63	0.30	16.61	0.32
48:51:40	373.50	358.87	14.63	0.30	16.61	0.32
49:01:40	372.64	358.34	14.30	0.29	15.75	0.30
49:11:40	372.74	358.34	14.40	0.29	15.85	0.30
49:21:40	372.94	358.34	14.59	0.30	16.05	0.31
49:31:40	373.05	358.34	14.70	0.30	16.16	0.31
49:41:40	373.11	358.34	14.77	0.30	16.22	0.31
49:51:40	373.19	358.34	14.85	0.30	16.30	0.31
50:01:40	372.24	358.08	14.15	0.29	15.35	0.29
50:11:40	372.37	358.08	14.29	0.29	15.48	0.29
50:21:40	372.45	358.08	14.37	0.29	15.57	0.30

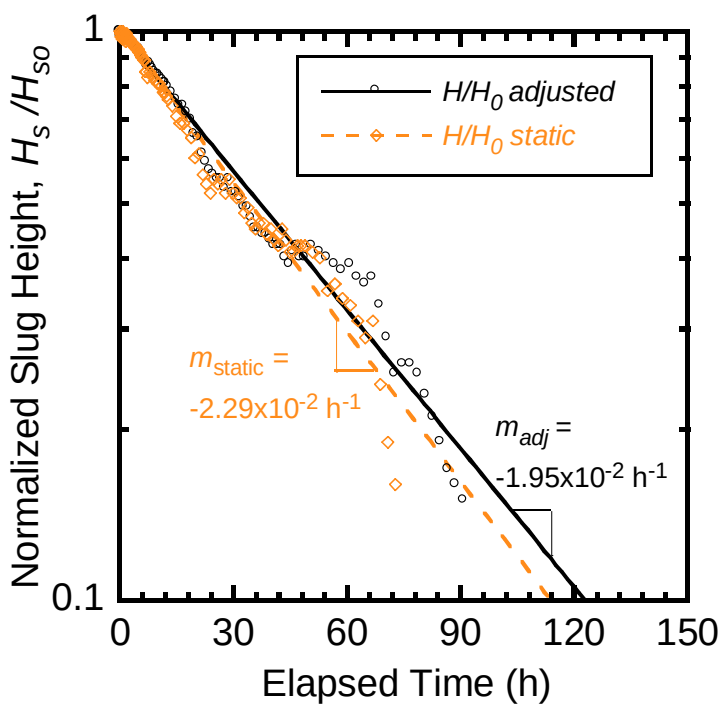
0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
50:31:40	372.58	358.08	14.50	0.29	15.69	0.30
50:41:40	372.58	358.08	14.50	0.29	15.69	0.30
50:51:40	372.55	358.08	14.47	0.29	15.67	0.30
51:01:40	371.53	357.97	13.56	0.27	14.65	0.28
51:11:40	371.52	357.97	13.55	0.27	14.64	0.28
51:21:40	371.56	357.97	13.59	0.27	14.67	0.28
51:31:40	371.53	357.97	13.56	0.27	14.65	0.28
51:41:40	371.62	357.97	13.65	0.28	14.73	0.28
51:51:40	371.64	357.97	13.67	0.28	14.76	0.28
52:01:40	370.68	357.86	12.82	0.26	13.79	0.26
52:11:40	370.71	357.86	12.85	0.26	13.82	0.26
52:21:40	370.79	357.86	12.93	0.26	13.90	0.26
52:31:40	370.71	357.86	12.85	0.26	13.82	0.26
52:41:40	370.70	357.86	12.84	0.26	13.81	0.26
52:51:40	370.83	357.86	12.97	0.26	13.94	0.27
53:01:40	368.78	356.63	12.15	0.25	11.89	0.23
53:11:40	368.79	356.63	12.16	0.25	11.91	0.23
53:21:40	368.73	356.63	12.09	0.24	11.84	0.23
53:31:40	368.71	356.63	12.07	0.24	11.82	0.23
53:41:40	368.47	356.63	11.84	0.24	11.59	0.22
53:51:40	368.44	356.63	11.81	0.24	11.55	0.22
54:01:40	367.28	356.13	11.15	0.23	10.39	0.20
54:11:40	367.21	356.13	11.08	0.22	10.33	0.20
54:21:40	367.03	356.13	10.89	0.22	10.14	0.19
54:31:40	366.94	356.13	10.81	0.22	10.05	0.19
54:41:40	366.82	356.13	10.68	0.22	9.93	0.19
54:51:40	366.71	356.13	10.58	0.21	9.82	0.19
55:01:40	366.73	356.60	10.13	0.20	9.84	0.19
55:11:40	366.47	356.60	9.87	0.20	9.58	0.18
55:21:40	366.29	356.60	9.69	0.20	9.40	0.18
55:31:40	366.07	356.60	9.47	0.19	9.19	0.17
55:41:40	366.06	356.60	9.46	0.19	9.17	0.17
55:51:40	366.09	356.60	9.50	0.19	9.21	0.18
56:01:40	364.93	355.95	8.98	0.18	8.04	0.15
56:11:40	364.86	355.95	8.90	0.18	7.97	0.15
56:21:40	364.91	355.95	8.96	0.18	8.02	0.15
56:31:40	365.17	355.95	9.22	0.19	8.29	0.16
56:41:40	365.34	355.95	9.39	0.19	8.45	0.16
56:51:40	365.20	355.95	9.24	0.19	8.31	0.16
57:01:40	365.28	355.94	9.34	0.19	8.40	0.16
57:11:40	365.14	355.94	9.20	0.19	8.25	0.16
57:21:40	364.94	355.94	9.00	0.18	8.06	0.15
57:31:40	364.86	355.94	8.91	0.18	7.97	0.15
57:41:40	364.82	355.94	8.88	0.18	7.94	0.15
57:51:40	364.71	355.94	8.77	0.18	7.83	0.15
58:01:40	364.82	355.76	9.06	0.18	7.94	0.15
58:11:40	364.61	355.76	8.85	0.18	7.73	0.15
58:21:40	364.63	355.76	8.86	0.18	7.74	0.15
58:31:40	364.65	355.76	8.89	0.18	7.76	0.15
58:41:40	364.61	355.76	8.85	0.18	7.73	0.15

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
58:51:40	364.63	355.76	8.86	0.18	7.74	0.15
59:01:40	364.45	355.73	8.72	0.18	7.56	0.14
59:11:40	364.34	355.73	8.61	0.17	7.45	0.14
59:21:40	364.31	355.73	8.58	0.17	7.42	0.14
59:31:40	364.34	355.73	8.61	0.17	7.45	0.14
59:41:40	364.36	355.73	8.63	0.17	7.47	0.14
59:51:40	364.29	355.73	8.55	0.17	7.40	0.14
60:01:40	364.24	355.95	8.29	0.17	7.35	0.14
60:11:40	364.19	355.95	8.23	0.17	7.30	0.14
60:21:40	364.24	355.95	8.29	0.17	7.35	0.14
60:31:40	364.24	355.95	8.29	0.17	7.35	0.14
60:41:40	364.14	355.95	8.19	0.17	7.25	0.14
60:51:40	364.01	355.95	8.06	0.16	7.12	0.14
61:01:40	364.22	355.94	8.28	0.17	7.33	0.14
61:11:40	364.31	355.94	8.37	0.17	7.42	0.14
61:21:40	364.34	355.94	8.40	0.17	7.45	0.14
61:31:40	364.33	355.94	8.39	0.17	7.44	0.14
61:41:40	364.56	355.94	8.62	0.17	7.67	0.15
61:51:40	364.56	355.94	8.62	0.17	7.67	0.15
62:01:40	364.45	355.97	8.48	0.17	7.56	0.14
62:11:40	364.54	355.97	8.57	0.17	7.65	0.15
62:21:40	364.47	355.97	8.50	0.17	7.58	0.14
62:31:40	364.50	355.97	8.53	0.17	7.62	0.15
62:41:40	364.48	355.97	8.51	0.17	7.60	0.14
62:51:40	364.34	355.97	8.37	0.17	7.45	0.14
63:01:40	364.19	356.07	8.12	0.16	7.30	0.14
63:11:40	364.05	356.07	7.99	0.16	7.17	0.14
63:21:40	364.27	356.07	8.21	0.17	7.39	0.14
63:31:40	364.27	356.07	8.21	0.17	7.39	0.14
63:41:40	364.14	356.07	8.08	0.16	7.25	0.14
63:51:40	364.19	356.07	8.12	0.16	7.30	0.14
64:01:40	364.34	356.31	8.03	0.16	7.45	0.14
64:11:40	364.22	356.31	7.91	0.16	7.33	0.14
64:21:40	364.14	356.31	7.83	0.16	7.25	0.14
64:31:40	364.14	356.31	7.83	0.16	7.25	0.14
64:41:40	364.13	356.31	7.82	0.16	7.24	0.14
64:51:40	364.01	356.31	7.70	0.16	7.12	0.14
65:01:40	362.92	355.65	7.26	0.15	6.03	0.11
65:11:40	362.99	355.65	7.34	0.15	6.10	0.12
65:21:40	362.86	355.65	7.20	0.15	5.97	0.11
65:31:40	362.72	355.65	7.06	0.14	5.83	0.11
66:01:40	361.74	355.72	6.02	0.12	4.85	0.09
66:31:40	360.73	355.72	5.01	0.10	3.84	0.07
67:01:40	360.23	355.90	4.33	0.09	3.34	0.06
67:31:40	359.39	355.90	3.49	0.07	2.50	0.05
68:01:40	358.79	355.92	2.86	0.06	1.90	0.04
68:31:40	358.01	355.92	2.09	0.04	1.12	0.02
69:01:40	357.75	355.22	2.52	0.05	0.86	0.02
69:31:40	357.60	355.22	2.38	0.05	0.72	0.01
70:01:40	359.36	356.42	2.94	0.06	2.47	0.05

0+80.0	5.0 m					Test #7
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
70:31:40	359.10	356.42	2.68	0.05	2.21	0.04
71:01:40	359.97	356.61	3.36	0.07	3.08	0.06
71:31:40	359.87	356.61	3.27	0.07	2.99	0.06
72:01:40	360.83	357.14	3.69	0.07	3.94	0.08
72:31:40	361.08	357.14	3.94	0.08	4.19	0.08
73:01:40	360.88	356.90	3.99	0.08	3.99	0.08
73:31:40	360.88	356.90	3.99	0.08	3.99	0.08
74:01:40	360.22	356.68	3.54	0.07	3.34	0.06
74:31:40	359.60	356.68	2.92	0.06	2.71	0.05
75:01:40	359.49	356.70	2.78	0.06	2.60	0.05
75:31:40	359.94	356.70	3.23	0.07	3.05	0.06
76:01:40	359.72	356.72	3.00	0.06	2.83	0.05
76:31:40	359.72	356.72	3.00	0.06	2.83	0.05
77:01:40	359.23	356.27	2.96	0.06	2.34	0.04
77:31:40	358.57	356.27	2.30	0.05	1.68	0.03
78:31:40	359.47	357.14	2.33	0.05	2.58	0.05
79:31:40	358.26	356.18	2.08	0.04	1.37	0.03
80:31:40	357.54	355.80	1.73	0.04	0.65	0.01
81:31:40	358.48	356.55	1.93	0.04	1.59	0.03
82:31:40	358.13	356.51	1.62	0.03	1.24	0.02
83:31:40	357.93	356.14	1.79	0.04	1.04	0.02
84:31:40	359.26	357.02	2.24	0.05	2.37	0.05
85:31:40	358.85	356.92	1.93	0.04	1.96	0.04
86:31:40	358.81	356.80	2.01	0.04	1.92	0.04
87:31:40	358.92	356.85	2.07	0.04	2.03	0.04
88:31:40	357.38	355.82	1.56	0.03	0.49	0.01
89:31:40	358.05	356.80	1.26	0.03	1.16	0.02
90:31:40	356.28	355.91	0.37	0.01	-0.61	-0.01
91:31:40	355.38	355.80	-0.43	-0.01	-1.51	-0.03
92:31:40	355.80	356.65	-0.85	-0.02	-1.09	-0.02
93:31:40	354.61	356.37	-1.76	-0.04	-2.28	-0.04
94:31:40	355.70	356.73	-1.02	-0.02	-1.18	-0.02
95:31:40	355.86	356.30	-0.44	-0.01	-1.03	-0.02
96:31:40	356.79	356.75	0.04	0.00	-0.10	0.00
97:31:40	358.08	357.48	0.60	0.01	1.19	0.02
98:31:40	357.72	357.38	0.34	0.01	0.83	0.02
99:31:40	356.46	356.40	0.06	0.00	-0.43	-0.01

Test Location (m)	**1+21.2**	**Effective Stress on date of test (kPa)**	**11.6**
Depth (m)	3.0	**Test # in well**	1
Well #	10	**Test Type**	Rate of Fall
Start Date of Test	11/14/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	170.3
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	36.9
k_{adj} (cm/s)	1.60E-07	**k_{static} (cm/s)**	1.88E-07





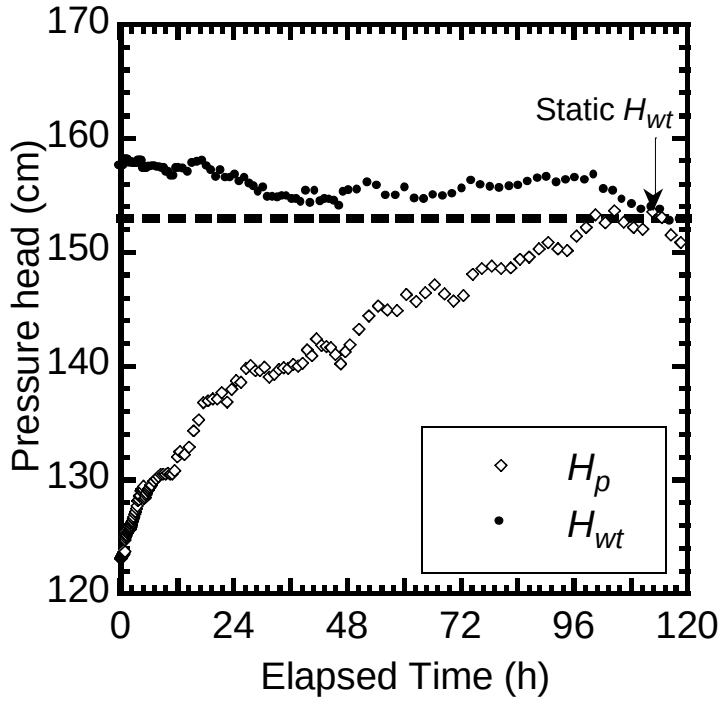
1+21.2	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	207.15	170.29	36.86	1.00	36.86	1.00
0:01:00	207.08	170.29	36.79	1.00	36.79	1.00
0:02:00	207.05	170.29	36.77	1.00	36.77	1.00
0:03:00	207.00	170.29	36.71	1.00	36.71	1.00
0:04:00	206.99	170.29	36.70	1.00	36.70	1.00
0:05:00	206.99	170.29	36.70	1.00	36.70	1.00
0:06:00	206.93	170.29	36.65	0.99	36.65	0.99
0:07:00	206.92	170.29	36.63	0.99	36.63	0.99
0:08:00	206.86	170.29	36.57	0.99	36.57	0.99
0:09:00	206.80	170.29	36.52	0.99	36.52	0.99
0:10:00	206.80	170.29	36.52	0.99	36.52	0.99
0:11:00	206.79	170.29	36.50	0.99	36.50	0.99
0:12:00	206.72	170.29	36.44	0.99	36.44	0.99
0:13:00	206.72	170.29	36.44	0.99	36.44	0.99
0:14:00	206.67	170.29	36.38	0.99	36.38	0.99
0:15:00	206.63	170.29	36.34	0.99	36.34	0.99
0:16:00	206.60	170.29	36.32	0.99	36.32	0.99
0:17:00	206.56	170.29	36.28	0.98	36.28	0.98
0:18:00	206.54	170.29	36.25	0.98	36.25	0.98
0:20:00	206.43	170.29	36.15	0.98	36.15	0.98
0:22:00	206.34	170.29	36.05	0.98	36.05	0.98
0:24:00	206.30	170.29	36.01	0.98	36.01	0.98
0:26:00	206.25	170.29	35.96	0.98	35.96	0.98
0:28:00	206.23	170.29	35.95	0.98	35.95	0.98
0:30:00	206.18	170.29	35.89	0.97	35.89	0.97
0:32:00	206.14	170.29	35.85	0.97	35.85	0.97
0:34:00	206.07	170.29	35.79	0.97	35.79	0.97
0:36:00	206.01	170.29	35.72	0.97	35.72	0.97
0:38:00	206.99	170.16	36.83	1.00	36.70	1.00
0:40:00	206.91	170.16	36.75	1.00	36.62	0.99
0:42:00	206.90	170.16	36.74	1.00	36.61	0.99
0:44:00	206.87	170.16	36.71	1.00	36.58	0.99
0:46:00	206.76	170.16	36.61	0.99	36.48	0.99
0:48:00	206.74	170.16	36.58	0.99	36.45	0.99
0:50:00	206.71	170.16	36.55	0.99	36.42	0.99
0:52:00	206.63	170.16	36.48	0.99	36.34	0.99
0:54:00	206.60	170.16	36.45	0.99	36.32	0.99
0:56:00	206.57	170.16	36.41	0.99	36.28	0.98
0:58:00	206.51	170.16	36.36	0.99	36.23	0.98
1:00:00	206.42	170.16	36.26	0.98	36.13	0.98
1:02:00	206.42	170.16	36.26	0.98	36.13	0.98
1:04:00	206.35	170.16	36.20	0.98	36.07	0.98
1:06:00	206.31	170.16	36.16	0.98	36.03	0.98
1:08:00	206.27	170.16	36.12	0.98	35.99	0.98
1:10:00	206.25	170.16	36.09	0.98	35.96	0.98
1:12:00	206.18	170.16	36.03	0.98	35.90	0.97
1:14:00	206.15	170.16	36.00	0.98	35.87	0.97
1:16:00	206.15	170.16	36.00	0.98	35.87	0.97
1:18:00	206.18	170.16	36.03	0.98	35.90	0.97
1:23:00	206.05	170.16	35.89	0.97	35.76	0.97

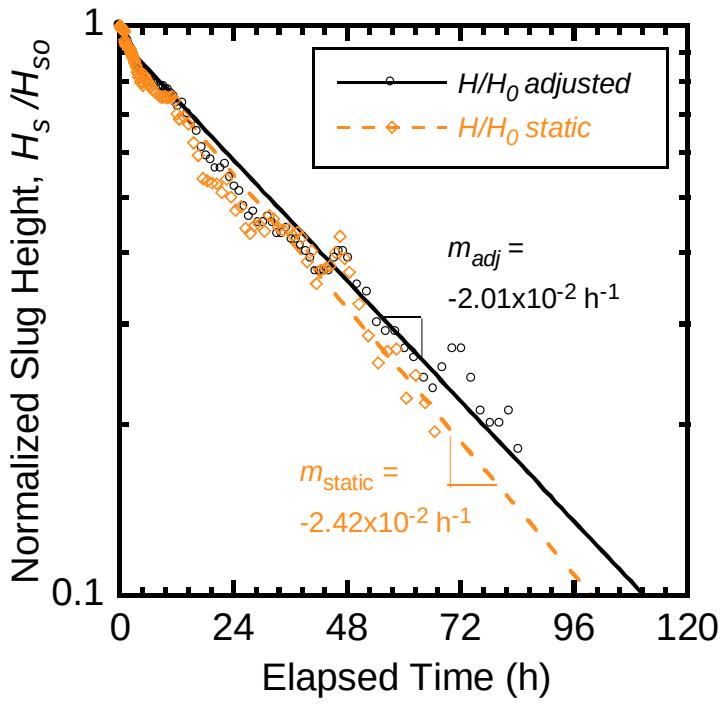
1+21.2	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:28:00	205.92	170.16	35.76	0.97	35.63	0.97
1:33:00	205.79	170.16	35.63	0.97	35.50	0.96
1:38:00	206.74	170.52	36.22	0.98	36.45	0.99
1:43:00	206.62	170.52	36.10	0.98	36.33	0.99
1:48:00	206.54	170.52	36.02	0.98	36.25	0.98
1:53:00	206.49	170.52	35.97	0.98	36.20	0.98
1:58:00	206.38	170.52	35.86	0.97	36.09	0.98
2:03:00	206.33	170.52	35.81	0.97	36.04	0.98
2:08:00	206.22	170.52	35.70	0.97	35.94	0.97
2:13:00	206.13	170.52	35.61	0.97	35.84	0.97
2:18:00	206.06	170.52	35.55	0.96	35.78	0.97
2:23:00	205.98	170.52	35.47	0.96	35.70	0.97
2:28:00	205.92	170.52	35.40	0.96	35.63	0.97
2:33:00	205.83	170.52	35.31	0.96	35.54	0.96
2:38:00	205.76	170.22	35.53	0.96	35.47	0.96
2:43:00	205.71	170.22	35.48	0.96	35.42	0.96
2:48:00	205.67	170.22	35.44	0.96	35.38	0.96
2:58:00	205.56	170.22	35.34	0.96	35.27	0.96
3:08:00	205.35	170.22	35.12	0.95	35.06	0.95
3:18:00	205.38	170.22	35.15	0.95	35.09	0.95
3:28:00	205.20	170.22	34.98	0.95	34.92	0.95
3:38:00	205.14	170.04	35.09	0.95	34.85	0.95
3:48:00	204.94	170.04	34.90	0.95	34.65	0.94
3:58:00	204.89	170.04	34.84	0.95	34.60	0.94
4:08:00	204.79	170.04	34.75	0.94	34.51	0.94
4:18:00	204.79	170.04	34.75	0.94	34.51	0.94
4:28:00	204.69	170.04	34.64	0.94	34.40	0.93
4:38:00	204.56	169.97	34.58	0.94	34.27	0.93
4:48:00	204.42	169.97	34.45	0.93	34.14	0.93
4:58:00	204.24	169.97	34.27	0.93	33.95	0.92
5:08:00	204.16	169.97	34.19	0.93	33.87	0.92
5:18:00	204.11	169.97	34.13	0.93	33.82	0.92
5:28:00	203.93	169.97	33.96	0.92	33.65	0.91
5:38:00	203.71	169.99	33.72	0.91	33.42	0.91
5:48:00	203.58	169.99	33.59	0.91	33.29	0.90
5:58:00	203.38	169.99	33.39	0.91	33.09	0.90
6:08:00	203.25	169.99	33.26	0.90	32.96	0.89
6:18:00	203.05	169.99	33.06	0.90	32.76	0.89
6:28:00	202.92	169.99	32.93	0.89	32.63	0.89
6:38:00	201.68	168.84	32.85	0.89	31.40	0.85
6:48:00	201.51	168.84	32.68	0.89	31.23	0.85
7:18:00	201.00	168.84	32.16	0.87	30.71	0.83
7:48:00	201.65	169.38	32.27	0.88	31.36	0.85
8:18:00	201.30	169.38	31.93	0.87	31.02	0.84
8:48:00	200.97	169.14	31.83	0.86	30.68	0.83
9:18:00	200.55	169.14	31.41	0.85	30.26	0.82
9:48:00	200.11	169.16	30.96	0.84	29.82	0.81
10:18:00	199.98	169.16	30.82	0.84	29.69	0.81
10:48:00	199.64	169.03	30.60	0.83	29.35	0.80
11:18:00	199.20	169.03	30.17	0.82	28.91	0.78

1+21.2	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
11:48:00	198.91	168.87	30.03	0.81	28.62	0.78
12:18:00	198.78	168.87	29.90	0.81	28.49	0.77
12:48:00	198.33	168.73	29.60	0.80	28.04	0.76
13:48:00	197.39	168.76	28.62	0.78	27.10	0.74
14:48:00	196.39	168.57	27.83	0.76	26.11	0.71
15:48:00	195.81	168.40	27.41	0.74	25.53	0.69
16:48:00	195.68	168.31	27.37	0.74	25.39	0.69
17:48:00	195.14	168.46	26.68	0.72	24.85	0.67
18:48:00	194.22	168.43	25.80	0.70	23.94	0.65
19:48:00	192.55	168.17	24.38	0.66	22.26	0.60
20:48:00	192.82	168.71	24.12	0.65	22.54	0.61
21:48:00	190.91	168.37	22.54	0.61	20.62	0.56
22:48:00	190.14	168.52	21.62	0.59	19.85	0.54
23:48:00	189.52	168.57	20.95	0.57	19.23	0.52
24:48:00	190.53	169.76	20.77	0.56	20.24	0.55
25:48:00	190.37	170.07	20.30	0.55	20.08	0.54
26:48:00	190.58	170.41	20.18	0.55	20.30	0.55
27:48:00	189.27	169.83	19.44	0.53	18.99	0.52
28:48:00	190.44	170.30	20.14	0.55	20.15	0.55
29:48:00	189.45	170.15	19.29	0.52	19.16	0.52
30:48:00	188.90	169.74	19.17	0.52	18.62	0.51
31:48:00	189.08	170.32	18.76	0.51	18.79	0.51
32:48:00	187.87	169.87	18.01	0.49	17.59	0.48
33:48:00	188.22	170.24	17.98	0.49	17.93	0.49
34:48:00	187.17	169.83	17.35	0.47	16.89	0.46
35:48:00	186.83	170.24	16.59	0.45	16.55	0.45
36:48:00	187.23	170.53	16.70	0.45	16.94	0.46
37:48:00	187.34	171.13	16.20	0.44	17.05	0.46
38:48:00	186.66	170.60	16.06	0.44	16.38	0.44
39:48:00	186.90	171.18	15.72	0.43	16.61	0.45
40:48:00	186.28	170.77	15.51	0.42	15.99	0.43
41:48:00	185.80	170.40	15.40	0.42	15.52	0.42
42:48:00	186.85	171.22	15.63	0.42	16.56	0.45
43:48:00	186.04	171.20	14.84	0.40	15.76	0.43
44:48:00	185.24	170.90	14.33	0.39	14.95	0.41
45:48:00	185.58	170.54	15.04	0.41	15.29	0.41
46:48:00	185.87	170.54	15.33	0.42	15.58	0.42
47:48:00	185.62	170.78	14.84	0.40	15.33	0.42
48:48:00	185.84	170.92	14.92	0.40	15.56	0.42
50:48:00	185.37	170.03	15.34	0.42	15.08	0.41
52:48:00	185.18	169.91	15.27	0.41	14.89	0.40
54:48:00	183.34	168.70	14.64	0.40	13.05	0.35
56:48:00	183.47	169.20	14.27	0.39	13.18	0.36
58:48:00	182.68	168.72	13.96	0.38	12.39	0.34
60:48:00	182.61	168.27	14.34	0.39	12.32	0.33
62:48:00	181.66	168.19	13.47	0.37	11.37	0.31
64:48:00	181.05	167.63	13.42	0.36	10.76	0.29
66:48:00	181.65	167.90	13.76	0.37	11.37	0.31
68:48:00	179.10	166.79	12.31	0.33	8.81	0.24
70:48:00	177.44	166.66	10.79	0.29	7.16	0.19

1+21.2	3.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
72:48:00	176.10	166.77	9.33	0.25	5.81	0.16
74:48:00	177.49	167.96	9.52	0.26	7.20	0.20
76:48:00	177.04	167.61	9.43	0.26	6.75	0.18
78:48:00	176.28	167.12	9.17	0.25	6.00	0.16
80:48:00	175.25	166.75	8.50	0.23	4.97	0.13
82:48:00	174.74	166.82	7.91	0.21	4.45	0.12
84:48:00	174.74	167.57	7.17	0.19	4.45	0.12
86:48:00	174.82	168.50	6.32	0.17	4.54	0.12
88:48:00	173.87	167.95	5.92	0.16	3.58	0.10
90:48:00	174.65	168.96	5.69	0.15	4.37	0.12
92:48:00	173.80	168.64	5.16	0.14	3.51	0.10
94:48:00	172.96	169.17	3.80	0.10	2.68	0.07
96:48:00	173.59	169.91	3.68	0.10	3.30	0.09
98:48:00	173.79	170.57	3.22	0.09	3.51	0.10
100:48:00	173.79	170.84	2.95	0.08	3.51	0.10
102:48:00	173.37	171.49	1.88	0.05	3.09	0.08
104:48:00	174.14	172.27	1.87	0.05	3.86	0.10
106:48:00	174.89	173.52	1.37	0.04	4.60	0.12
108:48:00	175.13	174.18	0.95	0.03	4.84	0.13
110:48:00	178.33	175.62	2.71	0.07	8.05	0.22
112:48:00	180.89	175.89	5.00	0.14	10.61	0.29
114:48:00	178.65	173.39	5.27	0.14	8.37	0.23
116:48:00	177.56	172.85	4.72	0.13	7.28	0.20
118:48:00	176.23	172.48	3.74	0.10	5.94	0.16
120:48:00	176.41	172.63	3.78	0.10	6.12	0.17
122:48:00	176.49	172.85	3.64	0.10	6.20	0.17
124:48:00	176.26	172.39	3.87	0.10	5.97	0.16
126:48:00	175.23	171.88	3.35	0.09	4.94	0.13
128:48:00	175.66	172.19	3.48	0.09	5.37	0.15
130:48:00	174.61	171.48	3.13	0.08	4.33	0.12
132:48:00	175.29	171.81	3.48	0.09	5.00	0.14
134:48:00	174.28	171.27	3.01	0.08	3.99	0.11
136:48:00	174.82	171.59	3.23	0.09	4.53	0.12
138:48:00	174.20	171.02	3.18	0.09	3.91	0.11
140:48:00	173.28	171.06	2.22	0.06	3.00	0.08
142:48:00	170.90	170.07	0.83	0.02	0.61	0.02
144:48:00	172.40	171.61	0.79	0.02	2.11	0.06
146:48:00	172.52	171.54	0.97	0.03	2.23	0.06
148:48:00	173.10	171.82	1.28	0.03	2.81	0.08

Test Location (m)	**1+21.2**	**Effective Stress on date of test (kPa)**	**11.6**
Depth (m)	3.0	**Test # in well**	2
Well #	10	**Test Type**	Rate of Rise
Start Date of Test	11/21/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	153.0
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	34.5/29.9
k_{adj} (cm/s)	1.65E-07	**k_{static} (cm/s)**	1.98E-07





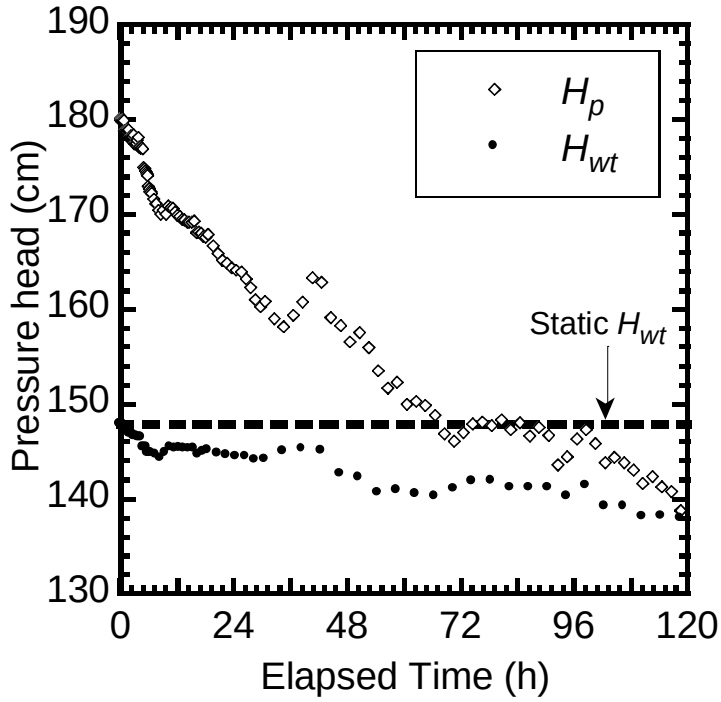
1+21.2	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	123.08	157.54	34.46	1.00	34.46	1.00
0:02:00	123.08	157.54	34.46	1.00	34.46	1.00
0:04:00	123.12	157.54	34.42	1.00	34.42	1.00
0:06:00	123.15	157.54	34.39	1.00	34.39	1.00
0:08:00	123.21	157.54	34.33	1.00	34.33	1.00
0:10:00	123.21	157.54	34.33	1.00	34.33	1.00
0:12:00	123.24	157.54	34.30	1.00	34.30	1.00
0:14:00	123.30	157.54	34.24	0.99	34.24	0.99
0:16:00	123.30	157.54	34.24	0.99	34.24	0.99
0:18:00	123.30	157.54	34.24	0.99	34.24	0.99
0:20:00	123.34	157.54	34.20	0.99	34.20	0.99
0:22:00	123.33	157.54	34.21	0.99	34.21	0.99
0:24:00	123.34	157.54	34.20	0.99	34.20	0.99
0:26:00	123.34	157.54	34.20	0.99	34.20	0.99
0:28:00	123.41	157.54	34.13	0.99	34.13	0.99
0:30:00	123.46	157.54	34.08	0.99	34.08	0.99
0:32:00	123.46	157.54	34.08	0.99	34.08	0.99
0:34:00	123.53	157.54	34.01	0.99	34.01	0.99
0:36:00	123.49	157.54	34.05	0.99	34.05	0.99
0:38:00	123.50	157.54	34.04	0.99	34.04	0.99
0:40:00	123.49	157.54	34.05	0.99	34.05	0.99
0:42:00	123.53	157.54	34.01	0.99	34.01	0.99
0:44:00	123.60	157.54	33.95	0.99	33.95	0.99
0:46:00	123.66	157.54	33.88	0.98	33.88	0.98
0:48:00	123.66	157.54	33.88	0.98	33.88	0.98
0:50:00	123.69	157.54	33.85	0.98	33.85	0.98
0:52:00	123.71	157.54	33.83	0.98	33.83	0.98
0:54:00	123.69	157.54	33.85	0.98	33.85	0.98
0:56:00	123.73	157.54	33.81	0.98	33.81	0.98
0:58:00	123.73	157.54	33.81	0.98	33.81	0.98
1:00:00	124.71	158.02	33.31	0.97	32.83	0.95
1:05:00	124.93	158.02	33.09	0.96	32.61	0.95
1:10:00	125.09	158.02	32.93	0.96	32.45	0.94
1:15:00	125.17	158.02	32.85	0.95	32.37	0.94
1:20:00	125.38	158.02	32.64	0.95	32.16	0.93
1:25:00	125.35	158.02	32.67	0.95	32.19	0.93
1:30:00	125.38	158.02	32.64	0.95	32.16	0.93
1:35:00	125.47	158.02	32.55	0.94	32.07	0.93
1:40:00	125.49	158.02	32.53	0.94	32.05	0.93
1:45:00	125.58	158.02	32.44	0.94	31.96	0.93
1:50:00	125.62	158.02	32.40	0.94	31.92	0.93
1:55:00	125.70	158.02	32.32	0.94	31.84	0.92
2:00:00	125.67	157.76	32.08	0.93	31.87	0.92
2:05:00	125.78	157.76	31.98	0.93	31.76	0.92
2:10:00	125.90	157.76	31.86	0.92	31.64	0.92
2:15:00	126.07	157.76	31.69	0.92	31.47	0.91
2:20:00	126.25	157.76	31.50	0.91	31.29	0.91
2:25:00	126.28	157.76	31.47	0.91	31.26	0.91
2:30:00	126.41	157.76	31.34	0.91	31.13	0.90
2:40:00	126.61	157.76	31.14	0.90	30.93	0.90

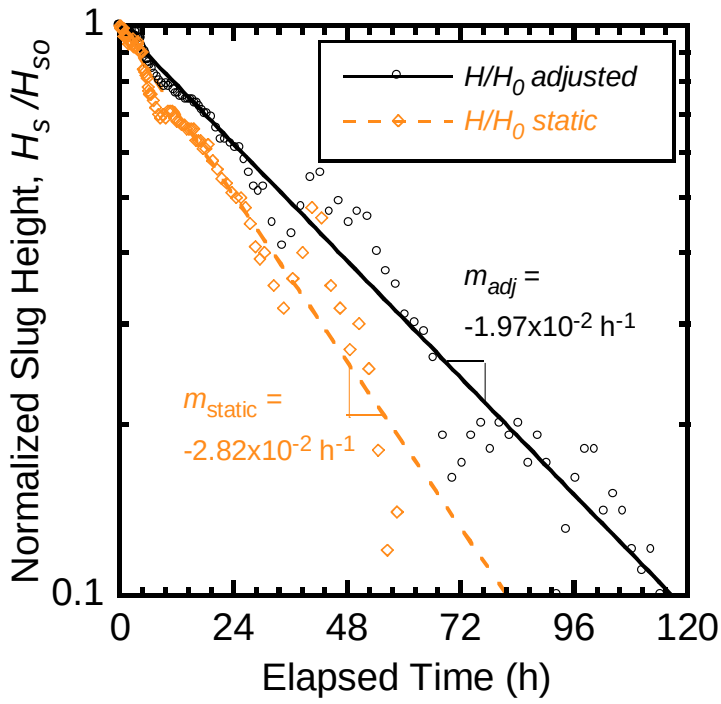
1+21.2	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:50:00	126.77	157.76	30.99	0.90	30.77	0.89
3:00:00	127.00	157.70	30.71	0.89	30.55	0.89
3:10:00	127.19	157.70	30.51	0.89	30.35	0.88
3:20:00	127.48	157.70	30.22	0.88	30.06	0.87
3:30:00	127.71	157.70	29.99	0.87	29.83	0.87
3:40:00	128.16	157.70	29.54	0.86	29.38	0.85
3:50:00	128.28	157.70	29.42	0.85	29.26	0.85
4:00:00	128.61	157.94	29.33	0.85	28.93	0.84
4:10:00	128.66	157.94	29.28	0.85	28.88	0.84
4:20:00	129.04	157.94	28.90	0.84	28.50	0.83
4:30:00	129.19	157.94	28.75	0.83	28.35	0.82
4:40:00	129.22	157.94	28.72	0.83	28.32	0.82
4:50:00	129.44	157.94	28.50	0.83	28.10	0.82
5:00:00	128.40	157.31	28.92	0.84	29.14	0.85
5:10:00	128.49	157.31	28.82	0.84	29.05	0.84
5:20:00	128.71	157.31	28.60	0.83	28.83	0.84
5:30:00	128.85	157.31	28.47	0.83	28.70	0.83
5:40:00	129.10	157.31	28.21	0.82	28.44	0.83
5:50:00	129.10	157.31	28.21	0.82	28.44	0.83
6:00:00	129.25	157.41	28.16	0.82	28.29	0.82
6:10:00	129.35	157.41	28.06	0.81	28.19	0.82
6:20:00	129.55	157.41	27.86	0.81	27.99	0.81
6:30:00	129.57	157.41	27.84	0.81	27.97	0.81
7:00:00	129.90	157.45	27.55	0.80	27.64	0.80
7:30:00	130.09	157.45	27.37	0.79	27.45	0.80
8:00:00	130.31	157.39	27.08	0.79	27.23	0.79
8:30:00	130.49	157.39	29.70	0.78	27.05	0.79
9:00:00	130.51	157.30	26.79	0.78	27.03	0.78
9:30:00	130.49	157.30	26.81	0.78	27.05	0.79
10:00:00	130.60	156.98	26.37	0.77	29.74	0.78
10:30:00	130.54	156.98	26.44	0.77	27.00	0.78
11:00:00	130.49	156.63	26.14	0.76	27.05	0.79
11:30:00	130.84	156.63	25.79	0.75	26.70	0.77
12:00:00	132.02	157.31	25.29	0.73	25.52	0.74
12:30:00	132.47	157.31	24.84	0.72	25.07	0.73
13:30:00	132.25	157.28	25.04	0.73	25.30	0.73
14:30:00	132.88	156.95	24.07	0.70	24.66	0.72
15:30:00	134.32	157.72	23.39	0.68	23.22	0.67
16:30:00	135.26	157.80	22.53	0.65	22.28	0.65
17:30:00	136.81	157.92	21.11	0.61	20.73	0.60
18:30:00	136.98	157.48	20.50	0.59	20.56	0.60
19:30:00	137.12	157.09	19.97	0.58	20.42	0.59
20:30:00	137.14	156.52	19.39	0.56	20.40	0.59
21:30:00	137.70	157.11	19.40	0.56	19.84	0.58
22:30:00	136.88	156.41	19.53	0.57	20.66	0.60
23:30:00	137.98	156.42	18.44	0.54	19.56	0.57
24:30:00	138.76	156.70	17.94	0.52	18.78	0.54
25:30:00	138.58	156.09	17.51	0.51	18.97	0.55
26:30:00	139.79	156.40	16.61	0.48	17.75	0.52
27:30:00	140.04	155.97	15.93	0.46	17.50	0.51

1+21.2	3.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
28:30:00	139.60	155.70	16.10	0.47	17.94	0.52
29:30:00	139.58	155.16	15.59	0.45	17.96	0.52
30:30:00	139.93	155.61	15.68	0.45	17.61	0.51
31:30:00	139.05	154.78	15.73	0.46	18.49	0.54
32:30:00	139.27	154.77	15.50	0.45	18.27	0.53
33:30:00	139.72	154.71	14.99	0.43	17.82	0.52
34:30:00	139.85	154.82	14.97	0.43	17.69	0.51
35:30:00	139.81	154.83	15.01	0.44	17.73	0.51
36:30:00	140.14	154.58	14.43	0.42	17.40	0.50
37:30:00	139.99	154.58	14.60	0.42	17.55	0.51
38:30:00	140.25	154.34	14.09	0.41	17.29	0.50
39:30:00	141.45	155.28	13.83	0.40	16.09	0.47
40:30:00	140.92	154.21	13.29	0.39	16.62	0.48
41:30:00	142.39	155.28	12.88	0.37	15.15	0.44
42:30:00	141.82	154.40	12.58	0.37	15.72	0.46
43:30:00	141.72	154.57	12.85	0.37	15.82	0.46
44:30:00	141.62	154.53	12.91	0.37	15.92	0.46
45:30:00	141.02	154.45	13.43	0.39	16.52	0.48
46:30:00	140.21	153.96	13.75	0.40	17.33	0.50
47:30:00	141.27	155.18	13.91	0.40	16.27	0.47
48:30:00	141.91	155.35	13.44	0.39	15.63	0.45
50:30:00	143.26	155.37	12.11	0.35	14.28	0.41
52:30:00	144.41	156.04	11.63	0.34	13.13	0.38
54:30:00	145.31	155.76	10.46	0.30	12.23	0.35
56:30:00	144.94	154.87	9.93	0.29	12.60	0.37
58:30:00	144.87	154.90	10.03	0.29	12.67	0.37
60:30:00	146.31	155.61	9.30	0.27	11.23	0.33
62:30:00	145.68	154.61	8.93	0.26	11.86	0.34
64:30:00	146.44	154.58	8.14	0.24	11.10	0.32
66:30:00	147.16	154.93	7.77	0.23	10.38	0.30
68:30:00	146.33	154.82	8.49	0.25	11.21	0.33
70:30:00	145.76	155.03	9.27	0.27	11.78	0.34
72:30:00	146.22	155.49	9.26	0.27	11.32	0.33
74:30:00	148.07	156.21	8.14	0.24	9.48	0.27
76:30:00	148.61	155.81	7.21	0.21	8.93	0.26
78:30:00	148.78	155.64	6.86	0.20	8.76	0.25
80:30:00	148.61	155.53	6.92	0.20	8.93	0.26
82:30:00	148.64	155.71	7.08	0.21	8.91	0.26
84:30:00	149.42	155.75	6.34	0.18	8.12	0.24
86:30:00	149.58	156.11	6.53	0.19	7.96	0.23
88:30:00	150.29	156.37	6.08	0.18	7.25	0.21
90:30:00	150.90	156.53	5.62	0.16	6.64	0.19
92:30:00	150.32	156.04	5.72	0.17	7.22	0.21
94:30:00	150.18	156.27	6.09	0.18	7.37	0.21
96:30:00	151.42	156.42	5.00	0.15	6.12	0.18
98:30:00	152.20	156.24	4.04	0.12	5.34	0.15
100:30:00	153.30	156.71	3.41	0.10	4.24	0.12
102:30:00	152.57	155.43	2.86	0.08	4.97	0.14
104:30:00	153.66	155.29	1.63	0.05	3.88	0.11
106:30:00	152.66	154.55	1.89	0.05	4.88	0.14

1+21.2	**3.0 m**					**Test #2**
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
108:30:00	152.18	154.12	1.94	0.06	5.36	0.16
110:30:00	152.06	153.66	1.60	0.05	5.48	0.16
112:30:00	153.54	153.86	0.32	0.01	4.00	0.12
114:30:00	153.07	153.68	0.61	0.02	4.47	0.13
116:30:00	151.52	152.66	1.13	0.03	6.02	0.17
118:30:00	150.89	152.82	1.93	0.06	6.65	0.19

Test Location (m)	**1+21.2**	**Effective Stress on date of test (kPa)**	**11.6**
Depth (m)	3.0	**Test # in well**	3
Well #	10	**Test Type**	Rate of Fall
Start Date of Test	12/16/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	147.9
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	32.3
k_{adj} (cm/s)	1.62E-07	**k_{static} (cm/s)**	2.31E-07





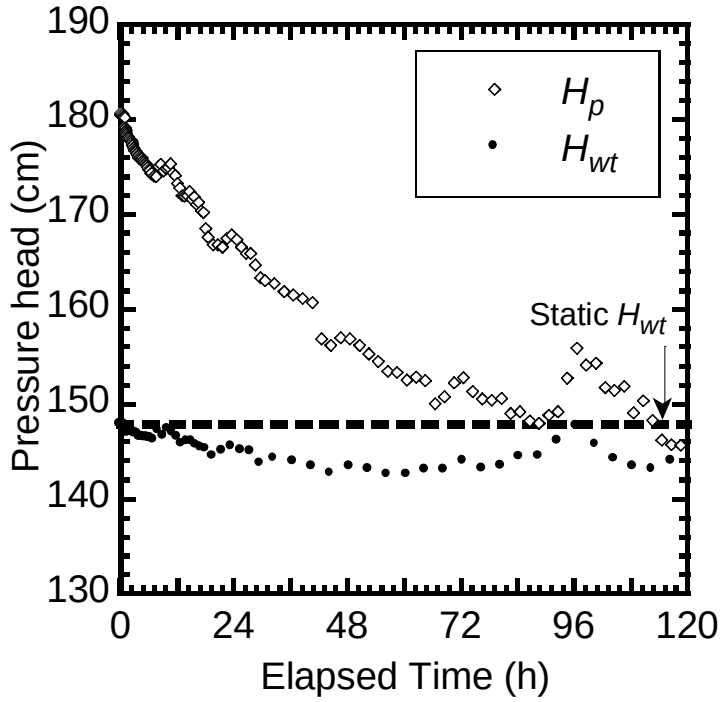
1+21.2	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	180.11	147.85	32.26	1.00	32.26	1.00
0:00:30	180.13	147.85	32.28	1.00	32.28	1.00
0:01:00	180.11	147.85	32.26	1.00	32.26	1.00
0:01:30	180.17	147.85	32.32	1.00	32.32	1.00
0:02:00	180.11	147.85	32.26	1.00	32.26	1.00
0:02:30	180.09	147.85	32.23	1.00	32.23	1.00
0:03:00	180.14	147.85	32.29	1.00	32.29	1.00
0:03:30	180.09	147.85	32.23	1.00	32.23	1.00
0:04:30	180.08	147.85	32.22	1.00	32.22	1.00
0:05:30	180.00	147.85	32.14	1.00	32.14	1.00
0:06:30	179.97	147.85	32.12	1.00	32.12	1.00
0:07:30	179.95	147.85	32.10	1.00	32.10	1.00
0:08:30	179.91	147.85	32.06	0.99	32.06	0.99
0:09:30	179.97	147.85	32.12	1.00	32.12	1.00
0:10:30	179.94	147.85	32.08	0.99	32.08	0.99
0:11:30	179.89	147.85	32.04	0.99	32.04	0.99
0:12:30	179.89	147.85	32.04	0.99	32.04	0.99
0:13:30	179.86	147.85	32.00	0.99	32.00	0.99
0:14:30	179.85	147.85	31.99	0.99	31.99	0.99
0:15:30	179.85	147.85	31.99	0.99	31.99	0.99
0:16:30	179.85	147.85	31.99	0.99	31.99	0.99
0:17:30	179.82	147.85	31.97	0.99	31.97	0.99
0:18:30	179.80	147.85	31.95	0.99	31.95	0.99
0:19:30	179.82	147.85	31.97	0.99	31.97	0.99
0:20:30	179.88	147.85	32.03	0.99	32.03	0.99
0:21:30	179.95	147.85	32.10	0.99	32.10	0.99
0:22:30	179.88	147.85	32.03	0.99	32.03	0.99
0:23:30	179.89	147.85	32.04	0.99	32.04	0.99
0:24:30	179.86	147.85	32.00	0.99	32.00	0.99
0:25:30	179.89	147.85	32.04	0.99	32.04	0.99
0:26:30	179.94	147.85	32.08	0.99	32.08	0.99
0:27:30	179.89	147.85	32.04	0.99	32.04	0.99
0:28:30	179.94	147.85	32.08	0.99	32.08	0.99
0:29:30	179.91	147.85	32.06	0.99	32.06	0.99
0:30:30	179.95	147.85	32.10	0.99	32.10	0.99
0:31:30	179.94	147.85	32.08	0.99	32.08	0.99
0:32:30	179.91	147.85	32.06	0.99	32.06	0.99
0:33:30	179.94	147.85	32.08	0.99	32.08	0.99
0:38:30	179.85	147.85	31.99	0.99	31.99	0.99
0:43:30	179.91	147.85	32.06	0.99	32.06	0.99
0:48:30	178.78	147.39	31.39	0.97	30.93	0.96
0:53:30	178.76	147.39	31.37	0.97	30.90	0.96
0:58:30	178.75	147.39	31.36	0.97	30.89	0.96
1:03:30	178.80	147.39	31.42	0.97	30.95	0.96
1:08:30	178.70	147.39	31.31	0.97	30.85	0.96
1:13:30	178.75	147.39	31.36	0.97	30.89	0.96
1:18:30	178.95	147.39	31.57	0.98	31.10	0.96
1:23:30	178.90	147.39	31.51	0.98	31.04	0.96
1:28:30	178.86	147.39	31.48	0.98	31.01	0.96
1:33:30	178.90	147.39	31.51	0.98	31.04	0.96

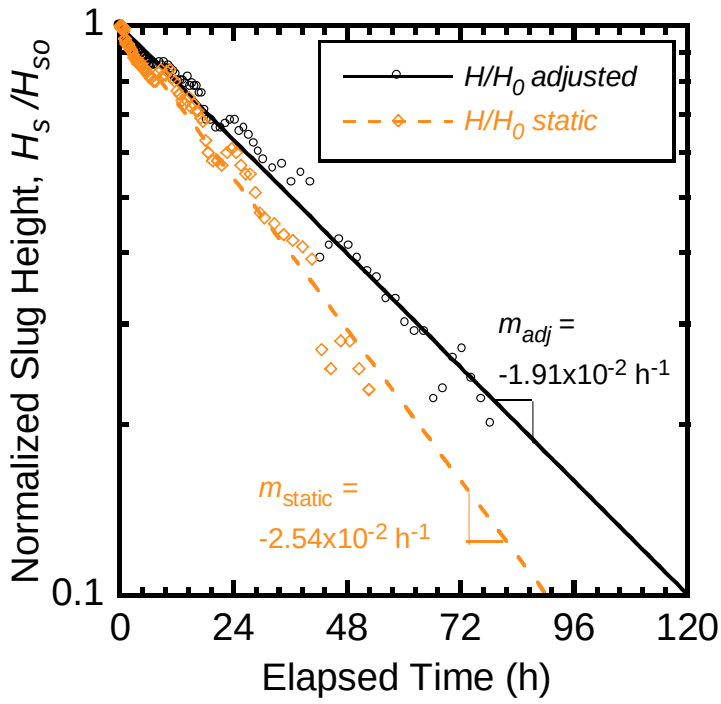
1+21.2	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:38:30	178.95	147.39	31.57	0.98	31.10	0.96
1:43:30	178.92	147.39	31.53	0.98	31.07	0.96
1:48:30	177.99	146.86	31.13	0.97	30.14	0.93
1:53:30	178.05	146.86	31.19	0.97	30.19	0.94
1:58:30	178.15	146.86	31.29	0.97	30.30	0.94
2:03:30	178.16	146.86	31.30	0.97	30.31	0.94
2:08:30	178.19	146.86	31.32	0.97	30.33	0.94
2:13:30	178.27	146.86	31.40	0.97	30.41	0.94
2:18:30	178.24	146.86	31.38	0.97	30.39	0.94
2:23:30	178.11	146.86	31.24	0.97	30.25	0.94
2:28:30	178.20	146.86	31.34	0.97	30.34	0.94
2:33:30	178.16	146.86	31.30	0.97	30.31	0.94
2:43:30	178.38	146.86	31.52	0.98	30.53	0.95
2:53:30	177.49	146.61	30.88	0.96	29.63	0.92
3:03:30	177.49	146.61	30.88	0.96	29.64	0.92
3:13:30	177.53	146.61	30.93	0.96	29.68	0.92
3:23:30	177.43	146.61	30.82	0.96	29.58	0.92
3:33:30	177.80	146.61	31.19	0.97	29.95	0.93
3:43:30	178.13	146.61	31.53	0.98	30.28	0.94
3:53:30	177.13	146.46	30.67	0.95	29.27	0.91
4:03:30	177.07	146.46	30.61	0.95	29.21	0.91
4:13:30	176.98	146.46	30.52	0.95	29.12	0.90
4:23:30	177.03	146.46	30.58	0.95	29.18	0.90
4:33:30	177.01	146.46	30.56	0.95	29.16	0.90
4:43:30	176.94	146.46	30.49	0.95	29.09	0.90
4:53:30	174.97	145.41	29.56	0.92	27.12	0.84
5:03:30	174.82	145.41	29.41	0.91	29.77	0.84
5:13:30	174.59	145.41	29.18	0.90	26.74	0.83
5:23:30	174.43	145.41	29.02	0.90	26.58	0.82
5:33:30	174.26	145.41	28.85	0.89	26.41	0.82
5:43:30	174.11	145.41	28.70	0.89	26.26	0.81
5:53:30	172.98	144.81	28.16	0.87	25.12	0.78
6:03:30	172.72	144.81	27.91	0.87	24.87	0.77
6:13:30	172.38	144.81	27.57	0.85	24.53	0.76
6:23:30	172.40	144.81	27.59	0.86	24.55	0.76
6:33:30	172.24	144.81	27.43	0.85	24.39	0.76
7:03:30	171.63	144.60	27.03	0.84	23.78	0.74
7:33:30	171.10	144.60	26.50	0.82	23.25	0.72
8:03:30	170.47	144.24	26.24	0.81	22.62	0.70
8:33:30	170.01	144.24	25.78	0.80	22.16	0.69
9:03:30	170.44	144.82	25.62	0.79	22.58	0.70
9:33:30	170.04	144.82	25.22	0.78	22.18	0.69
10:03:30	170.88	145.44	25.45	0.79	23.03	0.71
10:33:30	170.71	145.44	25.27	0.78	22.86	0.71
11:03:30	170.65	145.29	25.37	0.79	22.80	0.71
11:33:30	170.25	145.29	24.97	0.77	22.40	0.69
12:03:30	169.90	145.35	24.54	0.76	22.04	0.68
12:33:30	169.77	145.35	24.42	0.76	21.92	0.68
13:03:30	169.48	145.30	24.18	0.75	21.63	0.67
13:33:30	169.40	145.30	24.10	0.75	21.55	0.67

1+21.2	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
14:03:30	169.20	145.25	23.95	0.74	21.34	0.66
14:33:30	169.21	145.25	23.96	0.74	21.36	0.66
15:03:30	169.17	145.33	23.84	0.74	21.32	0.66
15:33:30	169.27	145.33	23.93	0.74	21.41	0.66
16:03:30	168.06	144.62	23.44	0.73	20.21	0.63
16:33:30	168.13	144.62	23.51	0.73	20.28	0.63
17:03:30	168.04	144.92	23.12	0.72	20.19	0.63
17:33:30	167.67	144.92	22.75	0.71	19.82	0.61
18:03:30	167.58	145.14	22.44	0.70	19.73	0.61
18:33:30	167.87	145.14	22.73	0.70	20.02	0.62
19:33:30	166.68	144.28	22.40	0.69	18.83	0.58
20:33:30	165.92	144.77	21.15	0.66	18.07	0.56
21:33:30	165.15	144.69	20.47	0.63	17.30	0.54
22:33:30	164.87	144.56	20.31	0.63	17.01	0.53
23:33:30	164.37	144.44	19.93	0.62	16.52	0.51
24:33:30	164.12	144.40	19.72	0.61	16.27	0.50
25:33:30	163.93	144.33	19.60	0.61	16.07	0.50
26:33:30	163.19	144.38	18.82	0.58	15.34	0.48
27:33:30	162.27	144.43	17.85	0.55	14.42	0.45
28:33:30	161.02	144.10	16.92	0.52	13.17	0.41
29:33:30	160.29	143.72	16.57	0.51	12.43	0.39
30:33:30	160.85	144.17	16.68	0.52	13.00	0.40
32:33:30	159.02	144.43	14.59	0.45	11.17	0.35
34:33:30	158.16	145.01	13.14	0.41	10.30	0.32
36:33:30	159.40	145.48	13.93	0.43	11.55	0.36
38:33:30	160.78	145.21	15.57	0.48	12.93	0.40
40:33:30	163.30	145.82	17.49	0.54	15.45	0.48
42:33:30	162.82	145.04	17.79	0.55	14.97	0.46
44:33:30	159.14	144.05	15.09	0.47	11.28	0.35
46:33:30	158.27	142.62	15.65	0.49	10.42	0.32
48:33:30	156.58	141.95	14.63	0.45	8.73	0.27
50:33:30	157.55	142.26	15.29	0.47	9.70	0.30
52:33:30	155.97	141.28	14.70	0.46	8.12	0.25
54:33:30	153.51	140.61	12.90	0.40	5.66	0.18
56:33:30	151.68	139.89	11.79	0.37	3.82	0.12
58:33:30	152.27	140.90	11.37	0.35	4.42	0.14
60:33:30	149.96	139.98	9.97	0.31	2.10	0.07
62:33:30	150.30	140.47	9.84	0.30	2.45	0.08
64:33:30	149.85	140.52	9.34	0.29	2.00	0.06
66:33:30	148.80	140.26	8.54	0.26	0.95	0.03
68:33:30	146.86	140.77	6.08	0.19	-1.00	-0.03
70:33:30	146.12	141.05	5.06	0.16	-1.74	-0.05
72:33:30	147.01	141.56	5.45	0.17	-0.84	-0.03
74:33:30	147.92	141.84	6.08	0.19	0.06	0.00
76:33:30	148.09	141.76	6.33	0.20	0.24	0.01
78:33:30	147.75	141.88	5.87	0.18	-0.11	0.00
80:33:30	148.35	141.89	6.46	0.20	0.49	0.02
82:33:30	147.30	141.18	6.12	0.19	-0.55	-0.02
84:33:30	148.05	141.66	6.39	0.20	0.20	0.01
86:33:30	146.66	141.14	5.52	0.17	-1.20	-0.04

1+21.2	3.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
88:33:30	147.54	141.33	6.22	0.19	-0.31	-0.01
90:33:30	146.72	141.17	5.55	0.17	-1.13	-0.04
92:33:30	143.60	140.22	3.38	0.10	-4.25	-0.13
94:33:30	144.43	140.26	4.17	0.13	-3.43	-0.11
96:33:30	146.35	141.24	5.11	0.16	-1.50	-0.05
98:33:30	147.30	141.35	5.95	0.18	-0.55	-0.02
100:33:30	145.84	140.02	5.82	0.18	-2.01	-0.06
102:33:30	143.83	139.20	4.63	0.14	-4.03	-0.12
104:33:30	144.37	139.59	4.78	0.15	-3.48	-0.11
106:33:30	143.86	139.20	4.66	0.14	-4.00	-0.12
108:33:30	143.07	139.08	3.99	0.12	-4.79	-0.15
110:33:30	141.66	138.12	3.53	0.11	-6.19	-0.19
112:33:30	142.35	138.61	3.74	0.12	-5.50	-0.17
114:33:30	141.26	138.14	3.13	0.10	-6.59	-0.20

Test Location (m)	**1+21.2**	**Effective Stress on date of test (kPa)**	**11.6**
Depth (m)	3.0	**Test # in well**	4
Well #	10	**Test Type**	Rate of Fall
Start Date of Test	12/19/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	147.9
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	32.8
k_{adj} (cm/s)	1.57E-07	**k_{static} (cm/s)**	2.09E-07





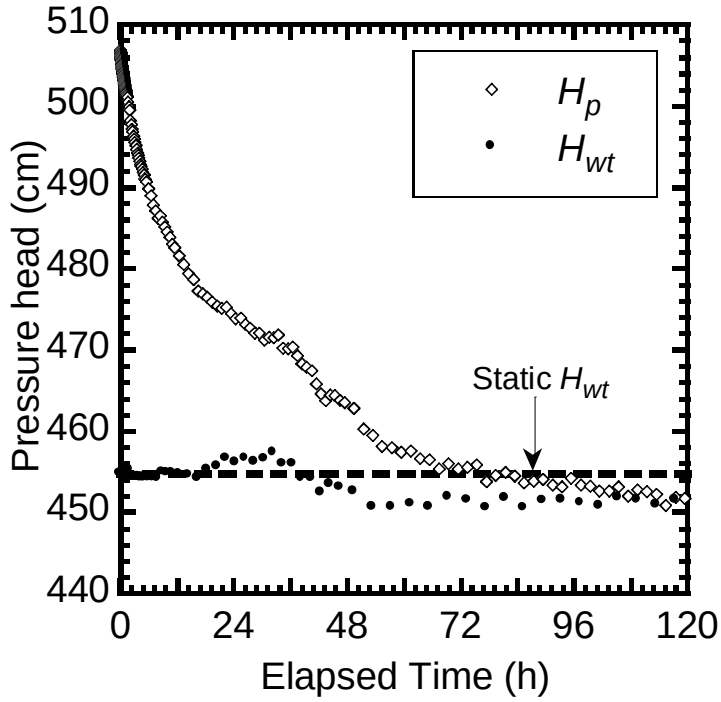
1+21.2	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	180.62	147.85	32.77	1.00	32.77	1.00
0:00:30	180.58	147.85	32.72	1.00	32.72	1.00
0:01:00	180.58	147.85	32.72	1.00	32.72	1.00
0:01:30	180.56	147.85	32.71	1.00	32.71	1.00
0:02:00	180.56	147.85	32.71	1.00	32.71	1.00
0:02:30	180.58	147.85	32.72	1.00	32.72	1.00
0:03:00	180.58	147.85	32.72	1.00	32.72	1.00
0:03:30	180.56	147.85	32.71	1.00	32.71	1.00
0:04:00	180.52	147.85	32.67	1.00	32.67	1.00
0:05:00	180.51	147.85	32.65	1.00	32.65	1.00
0:06:00	180.46	147.85	32.61	1.00	32.61	1.00
0:07:00	180.52	147.85	32.67	1.00	32.67	1.00
0:08:00	180.51	147.85	32.65	1.00	32.65	1.00
0:09:00	180.46	147.85	32.61	1.00	32.61	1.00
0:10:00	180.51	147.85	32.65	1.00	32.65	1.00
0:11:00	180.45	147.85	32.60	0.99	32.60	0.99
0:12:00	180.48	147.85	32.63	1.00	32.63	1.00
0:13:00	180.51	147.85	32.65	1.00	32.65	1.00
0:14:00	180.51	147.85	32.65	1.00	32.65	1.00
0:15:00	180.58	147.85	32.72	1.00	32.72	1.00
0:16:00	180.57	147.85	32.71	1.00	32.71	1.00
0:17:00	180.52	147.85	32.67	1.00	32.67	1.00
0:18:00	180.48	147.85	32.63	1.00	32.63	1.00
0:19:00	180.58	147.85	32.72	1.00	32.72	1.00
0:20:00	180.51	147.85	32.65	1.00	32.65	1.00
0:21:00	180.52	147.85	32.67	1.00	32.67	1.00
0:22:00	180.62	147.85	32.77	1.00	32.77	1.00
0:23:00	180.58	147.85	32.72	1.00	32.72	1.00
0:24:00	180.52	147.85	32.67	1.00	32.67	1.00
0:25:00	180.51	147.85	32.65	1.00	32.65	1.00
0:26:00	180.54	147.85	32.69	1.00	32.69	1.00
0:27:00	180.58	147.85	32.72	1.00	32.72	1.00
0:28:00	180.45	147.85	32.60	0.99	32.60	0.99
0:29:00	180.52	147.85	32.67	1.00	32.67	1.00
0:30:00	180.46	147.85	32.61	1.00	32.61	1.00
0:31:00	180.38	147.85	32.53	0.99	32.53	0.99
0:32:00	180.34	147.85	32.48	0.99	32.48	0.99
0:33:00	180.29	147.85	32.44	0.99	32.44	0.99
0:34:00	180.31	147.85	32.46	0.99	32.46	0.99
0:39:00	180.31	147.85	32.46	0.99	32.46	0.99
0:44:00	180.35	147.85	32.49	0.99	32.49	0.99
0:49:00	180.12	147.85	32.26	0.98	32.26	0.98
0:54:00	180.20	147.85	32.34	0.99	32.34	0.99
0:59:00	179.08	147.01	32.07	0.98	31.22	0.95
1:04:00	179.08	147.01	32.07	0.98	31.22	0.95
1:09:00	178.87	147.01	31.86	0.97	31.02	0.95
1:14:00	178.62	147.01	31.61	0.96	30.76	0.94
1:19:00	178.42	147.01	31.41	0.96	30.57	0.93
1:24:00	178.30	147.01	31.29	0.95	30.44	0.93
1:29:00	178.26	147.01	31.25	0.95	30.41	0.93

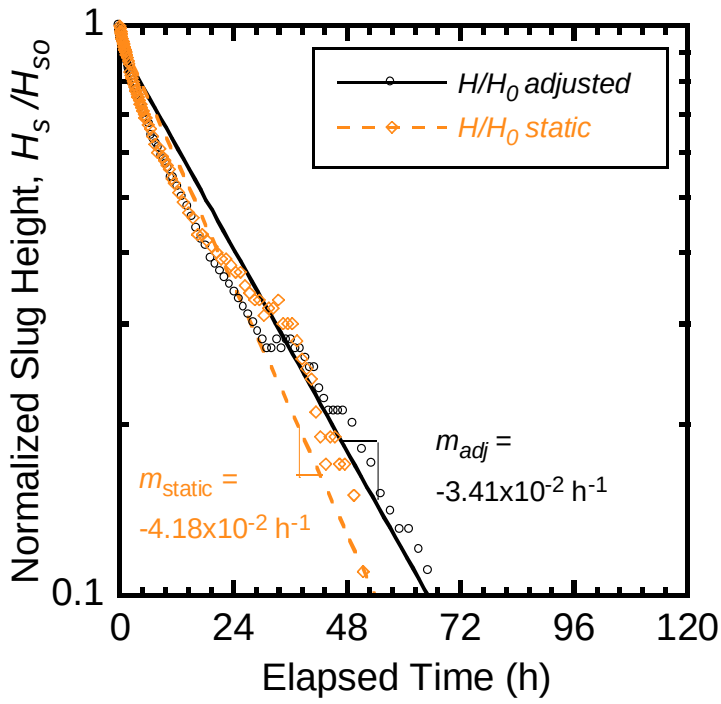
1+21.2	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:34:00	178.21	147.01	31.21	0.95	30.36	0.93
1:39:00	178.13	147.01	31.12	0.95	30.28	0.92
1:44:00	178.20	147.01	31.19	0.95	30.35	0.93
1:49:00	178.02	147.01	31.01	0.95	30.17	0.92
1:54:00	177.87	147.01	30.86	0.94	30.02	0.92
1:59:00	177.85	147.06	30.79	0.94	29.99	0.92
2:04:00	177.85	147.06	30.79	0.94	29.99	0.92
2:09:00	177.84	147.06	30.77	0.94	29.98	0.91
2:14:00	177.79	147.06	30.73	0.94	29.94	0.91
2:19:00	177.66	147.06	30.60	0.93	29.81	0.91
2:24:00	177.62	147.06	30.56	0.93	29.76	0.91
2:29:00	177.41	147.06	30.35	0.93	29.56	0.90
2:34:00	177.27	147.06	30.21	0.92	29.42	0.90
2:44:00	177.02	147.06	29.96	0.91	29.17	0.89
2:54:00	176.78	147.06	29.72	0.91	28.93	0.88
3:04:00	176.76	146.86	29.90	0.91	28.90	0.88
3:14:00	176.66	146.86	29.81	0.91	28.81	0.88
3:24:00	176.44	146.86	29.58	0.90	28.58	0.87
3:34:00	176.25	146.86	29.39	0.90	28.40	0.87
3:44:00	176.16	146.86	29.30	0.89	28.31	0.86
3:54:00	175.95	146.86	29.09	0.89	28.10	0.86
4:04:00	175.90	146.52	29.38	0.90	28.04	0.86
4:14:00	175.91	146.52	29.39	0.90	28.05	0.86
4:24:00	175.85	146.52	29.33	0.90	28.00	0.85
4:34:00	175.96	146.52	29.45	0.90	28.11	0.86
4:44:00	175.68	146.52	29.16	0.89	27.82	0.85
4:54:00	175.53	146.52	29.01	0.89	27.68	0.84
5:04:00	175.36	146.43	28.93	0.88	27.50	0.84
5:14:00	175.33	146.43	28.91	0.88	27.48	0.84
5:24:00	175.24	146.43	28.82	0.88	27.39	0.84
5:34:00	175.18	146.43	28.76	0.88	27.33	0.83
5:44:00	174.96	146.43	28.53	0.87	27.10	0.83
5:54:00	174.70	146.43	28.28	0.86	26.85	0.82
6:04:00	174.71	146.38	28.34	0.86	26.86	0.82
6:14:00	174.68	146.38	28.30	0.86	26.83	0.82
6:24:00	174.28	146.38	27.90	0.85	26.42	0.81
6:34:00	174.34	146.38	27.96	0.85	26.48	0.81
7:04:00	174.06	146.21	27.85	0.85	26.21	0.80
7:34:00	174.00	146.21	27.79	0.85	26.15	0.80
8:04:00	175.10	147.21	27.89	0.85	27.25	0.83
8:34:00	175.28	147.21	28.06	0.86	27.42	0.84
9:04:00	174.59	146.62	27.97	0.85	26.74	0.82
9:34:00	174.82	146.62	28.20	0.86	29.77	0.82
10:04:00	174.96	147.38	27.58	0.84	27.11	0.83
10:34:00	175.30	147.38	27.93	0.85	27.45	0.84
11:04:00	174.38	146.98	27.40	0.84	26.52	0.81
11:34:00	174.09	146.98	27.11	0.83	26.24	0.80
12:04:00	173.24	146.53	26.72	0.82	25.39	0.77
12:34:00	172.76	146.53	26.24	0.80	24.91	0.76
13:04:00	171.95	145.81	26.14	0.80	24.10	0.74

1+21.2	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
13:34:00	171.91	145.81	26.10	0.80	24.06	0.73
14:04:00	172.00	146.01	25.98	0.79	24.14	0.74
14:34:00	172.42	146.01	26.41	0.81	24.57	0.75
15:04:00	171.60	146.01	25.58	0.78	23.74	0.72
15:34:00	171.86	146.01	25.85	0.79	24.01	0.73
16:04:00	171.07	145.66	25.41	0.78	23.22	0.71
16:34:00	171.25	145.66	25.58	0.78	23.39	0.71
17:04:00	170.38	145.40	24.98	0.76	22.52	0.69
17:34:00	170.23	145.40	24.83	0.76	22.37	0.68
18:04:00	168.50	145.23	23.27	0.71	20.64	0.63
18:34:00	167.59	145.23	22.36	0.68	19.73	0.60
19:34:00	166.82	144.47	22.35	0.68	18.96	0.58
20:34:00	166.80	145.04	21.77	0.66	18.95	0.58
21:34:00	166.55	145.04	21.52	0.66	18.70	0.57
22:34:00	167.48	145.56	21.92	0.67	19.63	0.60
23:34:00	167.86	145.56	22.30	0.68	20.01	0.61
24:34:00	167.37	145.13	22.24	0.68	19.52	0.60
25:34:00	166.56	145.13	21.43	0.65	18.71	0.57
26:34:00	165.89	144.36	21.52	0.66	18.03	0.55
27:34:00	165.86	144.99	20.87	0.64	18.01	0.55
28:34:00	164.67	144.46	20.22	0.62	16.82	0.51
29:34:00	163.35	143.74	19.61	0.60	15.50	0.47
30:34:00	163.01	143.99	19.02	0.58	15.16	0.46
32:34:00	162.70	144.28	18.42	0.56	14.85	0.45
34:34:00	161.87	143.20	18.67	0.57	14.01	0.43
36:34:00	161.47	143.98	17.49	0.53	13.62	0.42
38:34:00	161.16	143.18	17.99	0.55	13.31	0.41
40:34:00	160.69	143.42	17.27	0.53	12.83	0.39
42:34:00	156.86	143.94	12.92	0.39	9.00	0.27
44:34:00	156.19	142.70	13.49	0.41	8.34	0.25
46:34:00	157.02	143.15	13.87	0.42	9.16	0.28
48:34:00	156.88	143.41	13.47	0.41	9.03	0.28
50:34:00	156.20	143.55	12.65	0.39	8.34	0.25
52:34:00	155.26	143.09	12.17	0.37	7.40	0.23
54:34:00	154.52	142.88	11.65	0.36	6.67	0.20
56:34:00	153.47	142.56	10.91	0.33	5.61	0.17
58:34:00	153.31	142.37	10.93	0.33	5.45	0.17
60:34:00	152.56	142.57	9.99	0.30	4.71	0.14
62:34:00	152.85	143.24	9.60	0.29	4.99	0.15
64:34:00	152.49	143.04	9.45	0.29	4.64	0.14
66:34:00	150.02	142.75	7.27	0.22	2.17	0.07
68:34:00	150.75	143.06	7.69	0.23	2.90	0.09
70:34:00	152.24	143.74	8.50	0.26	4.38	0.13
72:34:00	152.80	143.99	8.81	0.27	4.95	0.15
74:34:00	151.33	143.42	7.92	0.24	3.48	0.11
76:34:00	150.51	143.18	7.33	0.22	2.66	0.08
78:34:00	150.43	143.87	6.56	0.20	2.57	0.08
80:34:00	150.62	143.50	7.12	0.22	2.77	0.08
82:34:00	148.99	143.37	5.63	0.17	1.14	0.03
84:34:00	149.16	144.37	4.79	0.15	1.31	0.04

1+21.2	3.0 m					Test #4
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
86:34:00	148.25	143.90	4.35	0.13	0.40	0.01
88:34:00	148.00	144.42	3.58	0.11	0.14	0.00
90:34:00	148.83	145.66	3.17	0.10	0.97	0.03
92:34:00	149.17	146.09	3.08	0.09	1.31	0.04
94:34:00	152.74	146.83	5.91	0.18	4.88	0.15
96:34:00	155.91	147.67	8.24	0.25	8.06	0.25
98:34:00	154.13	147.03	7.10	0.22	6.28	0.19
100:34:00	154.29	145.71	8.58	0.26	6.44	0.20
102:34:00	151.74	145.54	6.21	0.19	3.89	0.12
104:34:00	151.47	144.18	7.30	0.22	3.62	0.11
106:34:00	151.90	143.78	8.13	0.25	4.05	0.12
108:34:00	149.06	143.43	5.63	0.17	1.21	0.04
110:34:00	150.32	143.55	6.76	0.21	2.46	0.08
112:34:00	148.29	143.12	5.17	0.16	0.44	0.01

Test Location (m)	**1+21.8**	**Effective Stress on date of test (kPa)**	**10.8**
Depth (m)	6.0	**Test # in well**	1
Well #	11	**Test Type**	Rate of Fall
Start Date of Test	11/8/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	454.8
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	52.1
k_{adj} (cm/s)	2.80E-07	**k_{static} (cm/s)**	3.43E-07





1+21.8	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	506.87	454.78	52.09	1.00	52.09	1.00
0:00:30	506.80	454.78	52.03	1.00	52.03	1.00
0:01:00	506.72	454.78	51.95	1.00	51.95	1.00
0:01:30	506.63	454.78	51.85	1.00	51.85	1.00
0:02:00	506.57	454.78	51.79	0.99	51.79	0.99
0:02:30	506.51	454.78	51.73	0.99	51.73	0.99
0:03:00	506.45	454.78	51.67	0.99	51.67	0.99
0:03:30	506.35	454.78	51.58	0.99	51.58	0.99
0:04:00	506.29	454.78	51.51	0.99	51.51	0.99
0:04:30	506.25	454.78	51.47	0.99	51.47	0.99
0:05:00	506.21	454.78	51.43	0.99	51.43	0.99
0:05:30	506.14	454.78	51.36	0.99	51.36	0.99
0:06:00	506.06	454.78	51.29	0.98	51.29	0.98
0:06:30	506.01	454.78	51.23	0.98	51.23	0.98
0:07:00	505.97	454.78	51.19	0.98	51.19	0.98
0:07:30	505.90	454.78	51.13	0.98	51.13	0.98
0:08:00	505.86	454.78	51.09	0.98	51.09	0.98
0:08:30	505.80	454.78	51.02	0.98	51.02	0.98
0:09:00	505.74	454.78	50.97	0.98	50.97	0.98
0:09:30	505.68	454.78	50.90	0.98	50.90	0.98
0:10:00	505.61	454.78	50.83	0.98	50.83	0.98
0:10:30	505.59	454.78	50.81	0.98	50.81	0.98
0:11:00	505.52	454.78	50.74	0.97	50.74	0.97
0:11:30	505.51	454.78	50.73	0.97	50.73	0.97
0:12:00	505.40	454.78	50.62	0.97	50.62	0.97
0:12:30	505.35	454.78	50.57	0.97	50.57	0.97
0:13:00	505.33	454.78	50.56	0.97	50.56	0.97
0:13:30	505.27	454.78	50.49	0.97	50.49	0.97
0:14:00	505.20	454.78	50.42	0.97	50.42	0.97
0:14:30	505.16	454.78	50.38	0.97	50.38	0.97
0:15:00	505.12	454.78	50.35	0.97	50.35	0.97
0:15:30	505.10	454.78	50.32	0.97	50.32	0.97
0:16:00	505.08	454.78	50.31	0.97	50.31	0.97
0:16:30	504.99	454.78	50.21	0.96	50.21	0.96
0:17:00	504.99	454.78	50.21	0.96	50.21	0.96
0:17:30	504.95	454.78	50.17	0.96	50.17	0.96
0:18:00	504.91	454.78	50.13	0.96	50.13	0.96
0:18:30	504.88	454.78	50.11	0.96	50.11	0.96
0:19:00	504.84	454.78	50.07	0.96	50.07	0.96
0:19:30	504.82	454.78	50.04	0.96	50.04	0.96
0:20:00	504.78	454.78	50.00	0.96	50.00	0.96
0:20:30	504.74	454.78	49.96	0.96	49.96	0.96
0:21:00	504.69	454.78	49.91	0.96	49.91	0.96
0:21:30	504.67	454.78	49.89	0.96	49.89	0.96
0:22:00	504.63	454.78	49.86	0.96	49.86	0.96
0:22:30	504.58	454.78	49.80	0.96	49.80	0.96
0:23:00	504.54	454.78	49.76	0.96	49.76	0.96
0:23:30	504.50	454.78	49.72	0.95	49.72	0.95
0:24:00	504.50	454.78	49.72	0.95	49.72	0.95
0:24:30	504.43	454.78	49.66	0.95	49.66	0.95

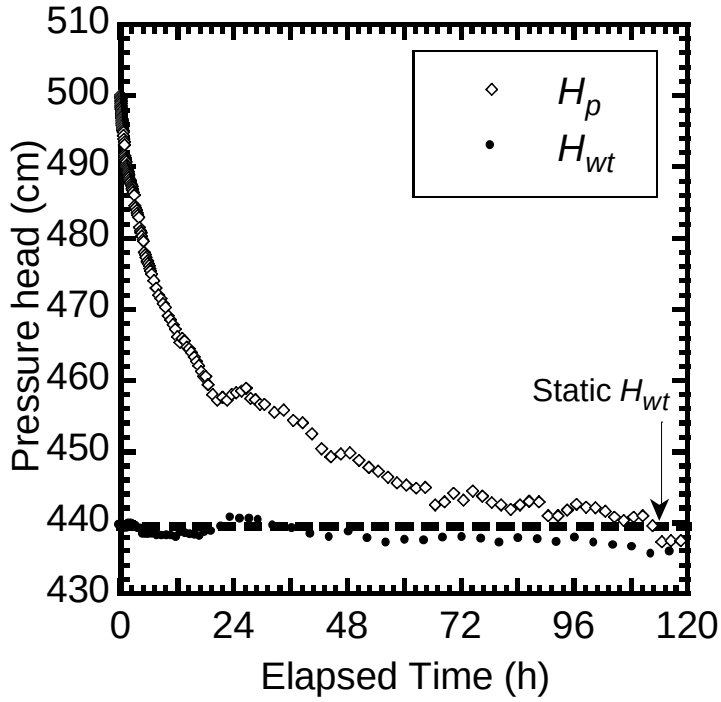
1+21.8	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:25:00	504.41	454.78	49.63	0.95	49.63	0.95
0:26:00	504.35	454.78	49.58	0.95	49.58	0.95
0:27:00	504.26	454.78	49.48	0.95	49.48	0.95
0:28:00	504.20	454.78	49.42	0.95	49.42	0.95
0:29:00	504.12	454.78	49.34	0.95	49.34	0.95
0:30:00	504.01	454.78	49.23	0.95	49.23	0.95
0:31:00	503.97	454.78	49.19	0.94	49.19	0.94
0:32:00	503.92	454.78	49.14	0.94	49.14	0.94
0:33:00	503.84	454.78	49.06	0.94	49.06	0.94
0:34:00	503.81	454.78	49.03	0.94	49.03	0.94
0:35:00	503.71	454.78	48.93	0.94	48.93	0.94
0:36:00	503.67	454.78	48.89	0.94	48.89	0.94
0:37:00	503.63	454.78	48.85	0.94	48.85	0.94
0:38:00	503.53	454.78	48.76	0.94	48.76	0.94
0:39:00	503.52	454.78	48.74	0.94	48.74	0.94
0:40:00	503.45	454.78	48.68	0.93	48.68	0.93
0:41:00	503.39	454.78	48.61	0.93	48.61	0.93
0:42:00	503.35	454.78	48.57	0.93	48.57	0.93
0:43:00	503.28	454.78	48.50	0.93	48.50	0.93
0:44:00	503.22	454.78	48.44	0.93	48.44	0.93
0:45:00	503.15	454.78	48.37	0.93	48.37	0.93
0:46:00	503.08	454.78	48.31	0.93	48.31	0.93
0:47:00	503.03	454.78	48.25	0.93	48.25	0.93
0:48:00	502.96	454.78	48.19	0.93	48.19	0.93
0:49:00	502.90	454.78	48.12	0.92	48.12	0.92
0:50:00	502.83	454.78	48.06	0.92	48.06	0.92
0:51:00	502.77	454.78	47.99	0.92	47.99	0.92
0:52:00	502.73	454.78	47.95	0.92	47.95	0.92
0:53:00	502.63	454.78	47.86	0.92	47.86	0.92
0:54:00	502.59	454.78	47.82	0.92	47.82	0.92
0:55:00	502.53	454.78	47.75	0.92	47.75	0.92
0:56:00	502.48	454.78	47.70	0.92	47.70	0.92
0:57:00	502.45	454.78	47.67	0.92	47.67	0.92
0:58:00	502.41	454.78	47.63	0.91	47.63	0.91
0:59:00	502.36	454.78	47.58	0.91	47.58	0.91
1:00:00	502.30	455.19	47.12	0.90	47.53	0.91
1:01:00	502.25	455.19	47.06	0.90	47.47	0.91
1:02:00	502.20	455.19	47.01	0.90	47.42	0.91
1:03:00	502.17	455.19	46.98	0.90	47.39	0.91
1:04:00	502.10	455.19	46.92	0.90	47.33	0.91
1:05:00	502.09	455.19	46.91	0.90	47.31	0.91
1:06:00	502.04	455.19	46.85	0.90	47.26	0.91
1:07:00	501.97	455.19	46.79	0.90	47.19	0.91
1:08:00	501.96	455.19	46.77	0.90	47.18	0.91
1:09:00	501.92	455.19	46.73	0.90	47.14	0.90
1:10:00	501.85	455.19	46.67	0.90	47.08	0.90
1:11:00	501.83	455.19	46.64	0.90	47.05	0.90
1:12:00	501.72	455.19	46.53	0.89	46.94	0.90
1:13:00	501.68	455.19	46.49	0.89	46.90	0.90
1:14:00	501.61	455.19	46.43	0.89	46.84	0.90

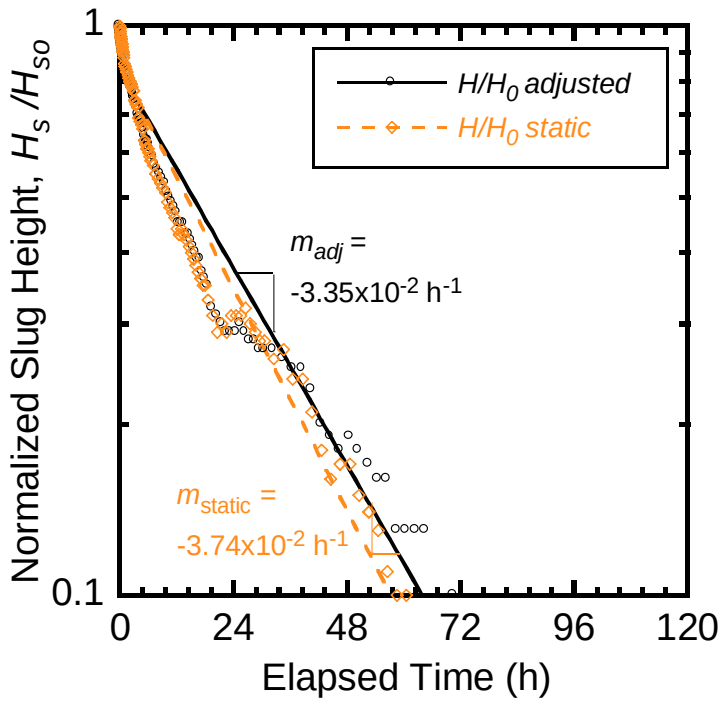
1+21.8	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:15:00	501.59	455.19	46.40	0.89	46.81	0.90
1:16:00	501.51	455.19	46.32	0.89	46.73	0.90
1:17:00	501.51	455.19	46.32	0.89	46.73	0.90
1:18:00	501.47	455.19	46.28	0.89	46.69	0.90
1:19:00	501.42	455.19	46.23	0.89	46.64	0.90
1:20:00	501.36	455.19	46.18	0.89	46.59	0.89
1:21:00	501.31	455.19	46.12	0.89	46.53	0.89
1:22:00	501.23	455.19	46.04	0.88	46.45	0.89
1:23:00	501.21	455.19	46.02	0.88	46.43	0.89
1:24:00	501.14	455.19	45.95	0.88	46.36	0.89
1:25:00	501.08	455.19	45.90	0.88	46.31	0.89
1:35:00	500.48	455.19	45.29	0.87	45.70	0.88
1:45:00	499.95	455.19	44.76	0.86	45.17	0.87
1:55:00	499.50	455.19	44.31	0.85	44.72	0.86
2:05:00	498.20	454.34	43.86	0.84	43.42	0.83
2:15:00	497.72	454.34	43.39	0.83	42.95	0.82
2:25:00	497.17	454.34	42.83	0.82	42.39	0.81
2:35:00	496.84	454.34	42.50	0.82	42.06	0.81
2:45:00	496.32	454.34	41.98	0.81	41.54	0.80
2:55:00	495.95	454.34	41.61	0.80	41.17	0.79
3:05:00	495.51	454.34	41.18	0.79	40.74	0.78
3:15:00	495.13	454.34	40.79	0.78	40.35	0.77
3:25:00	494.69	454.34	40.36	0.77	39.91	0.77
3:35:00	494.27	454.34	39.93	0.77	39.49	0.76
3:45:00	493.94	454.34	39.60	0.76	39.16	0.75
3:55:00	493.62	454.34	39.28	0.75	38.84	0.75
4:05:00	493.22	454.31	38.91	0.75	38.45	0.74
4:15:00	492.79	454.31	38.48	0.74	38.01	0.73
4:25:00	492.60	454.31	38.29	0.74	37.82	0.73
4:35:00	492.23	454.31	37.92	0.73	37.45	0.72
4:45:00	491.85	454.31	37.54	0.72	37.07	0.71
4:55:00	491.54	454.31	37.23	0.71	36.76	0.71
5:05:00	491.05	454.28	36.77	0.71	36.28	0.70
5:15:00	490.93	454.28	36.65	0.70	36.16	0.69
5:25:00	490.66	454.28	36.38	0.70	35.88	0.69
5:55:00	489.83	454.28	35.56	0.68	35.06	0.67
6:25:00	488.96	454.32	34.64	0.67	34.18	0.66
6:55:00	487.86	454.32	33.54	0.64	33.09	0.64
7:25:00	487.13	454.13	33.00	0.63	32.36	0.62
7:55:00	486.17	454.13	32.04	0.62	31.39	0.60
8:25:00	486.51	454.96	31.56	0.61	31.74	0.61
8:55:00	485.69	454.96	30.74	0.59	30.91	0.59
9:25:00	485.11	454.89	30.22	0.58	30.33	0.58
9:55:00	484.47	454.89	29.59	0.57	29.70	0.57
10:25:00	483.83	454.84	28.99	0.56	29.05	0.56
10:55:00	482.97	454.84	28.13	0.54	28.19	0.54
11:25:00	482.61	454.72	27.88	0.54	27.83	0.53
12:25:00	481.56	454.71	26.85	0.52	26.79	0.51
13:25:00	480.50	454.67	25.84	0.50	25.73	0.49
14:25:00	479.39	454.58	24.81	0.48	24.62	0.47

1+21.8	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
15:25:00	478.70	454.66	24.05	0.46	23.93	0.46
16:25:00	477.21	454.25	22.96	0.44	22.43	0.43
17:25:00	476.92	454.82	22.10	0.42	22.14	0.43
18:25:00	476.44	455.24	21.20	0.41	21.67	0.42
19:25:00	475.91	455.48	20.43	0.39	21.14	0.41
20:25:00	475.38	455.66	19.72	0.38	20.61	0.40
21:25:00	475.08	456.02	19.06	0.37	20.30	0.39
22:25:00	475.24	456.63	18.61	0.36	20.46	0.39
23:25:00	474.45	456.20	18.24	0.35	19.67	0.38
24:25:00	473.82	456.16	17.67	0.34	19.05	0.37
25:25:00	473.94	456.93	17.01	0.33	19.17	0.37
26:25:00	473.16	456.64	16.52	0.32	18.39	0.35
27:25:00	472.69	456.43	16.26	0.31	17.91	0.34
28:25:00	472.05	456.25	15.80	0.30	17.27	0.33
29:25:00	472.08	456.98	15.10	0.29	17.30	0.33
30:25:00	471.18	456.59	14.59	0.28	16.40	0.31
31:25:00	471.55	457.33	14.22	0.27	16.77	0.32
32:25:00	471.48	457.36	14.13	0.27	16.71	0.32
33:25:00	471.83	457.26	14.57	0.28	17.05	0.33
34:25:00	470.24	455.92	14.32	0.27	15.46	0.30
35:25:00	470.16	455.79	14.37	0.28	15.38	0.30
36:25:00	470.38	455.96	14.42	0.28	15.61	0.30
37:25:00	469.31	455.14	14.17	0.27	14.53	0.28
38:25:00	468.27	454.23	14.04	0.27	13.50	0.26
39:25:00	467.86	454.17	13.70	0.26	13.09	0.25
40:25:00	467.43	454.18	13.25	0.25	12.65	0.24
41:25:00	465.81	452.99	12.83	0.25	11.03	0.21
42:25:00	464.62	452.46	12.16	0.23	9.84	0.19
43:25:00	463.75	452.38	11.36	0.22	8.97	0.17
44:25:00	464.44	453.42	11.01	0.21	9.66	0.19
45:25:00	464.42	453.60	10.83	0.21	9.65	0.19
46:25:00	463.83	453.07	10.75	0.21	9.05	0.17
47:25:00	463.52	452.81	10.71	0.21	8.74	0.17
49:25:00	462.83	452.59	10.24	0.20	8.05	0.15
51:25:00	460.30	450.86	9.44	0.18	5.52	0.11
53:25:00	459.45	450.68	8.77	0.17	4.68	0.09
55:25:00	458.10	450.49	7.61	0.15	3.33	0.06
57:25:00	457.96	450.68	7.28	0.14	3.18	0.06
59:25:00	457.42	450.70	6.71	0.13	2.64	0.05
61:25:00	457.57	451.04	6.53	0.13	2.80	0.05
63:25:00	456.63	450.45	6.18	0.12	1.86	0.04
65:25:00	456.46	450.65	5.81	0.11	1.69	0.03
67:25:00	455.39	451.15	4.25	0.08	0.61	0.01
69:25:00	456.02	451.87	4.14	0.08	1.24	0.02
71:25:00	455.33	451.41	3.91	0.08	0.55	0.01
73:25:00	455.54	451.45	4.09	0.08	0.76	0.01
75:25:00	455.86	451.87	3.99	0.08	1.08	0.02
77:25:00	453.78	450.53	3.24	0.06	-1.00	-0.02
79:25:00	454.56	451.24	3.32	0.06	-0.22	0.00
81:25:00	454.96	451.75	3.21	0.06	0.18	0.00

1+21.8	6.0 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
83:25:00	454.53	451.53	3.00	0.06	-0.24	0.00
85:25:00	453.63	450.55	3.08	0.06	-1.14	-0.02
87:25:00	453.85	450.64	3.20	0.06	-0.93	-0.02
89:25:00	454.07	451.38	2.69	0.05	-0.71	-0.01
91:25:00	453.40	451.46	1.94	0.04	-1.38	-0.03
93:25:00	453.15	451.48	1.67	0.03	-1.63	-0.03
95:25:00	454.19	452.11	2.08	0.04	-0.59	-0.01
97:25:00	453.34	451.14	2.20	0.04	-1.43	-0.03
99:25:00	453.25	451.09	2.16	0.04	-1.53	-0.03
101:25:00	452.69	450.82	1.87	0.04	-2.08	-0.04
103:25:00	452.67	451.25	1.42	0.03	-2.11	-0.04
105:25:00	453.19	451.79	1.40	0.03	-1.59	-0.03
107:25:00	452.02	450.62	1.40	0.03	-2.76	-0.05
109:25:00	452.78	451.54	1.24	0.02	-2.00	-0.04
111:25:00	452.60	451.00	1.60	0.03	-2.17	-0.04
113:25:00	452.27	450.93	1.34	0.03	-2.51	-0.05
115:25:00	450.88	450.28	0.60	0.01	-3.89	-0.07
117:25:00	451.89	451.50	0.39	0.01	-2.89	-0.06
119:25:00	451.73	451.25	0.48	0.01	-3.05	-0.06

Test Location (m)	**1+21.8**	**Effective Stress on date of test (kPa)**	**10.8**
Depth (m)	6.0	**Test # in well**	2
Well #	11	**Test Type**	Rate of Fall
Start Date of Test	11/29/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	439.5
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	60.7
k_{adj} (cm/s)	2.75E-07	**k_{static} (cm/s)**	3.07E-07





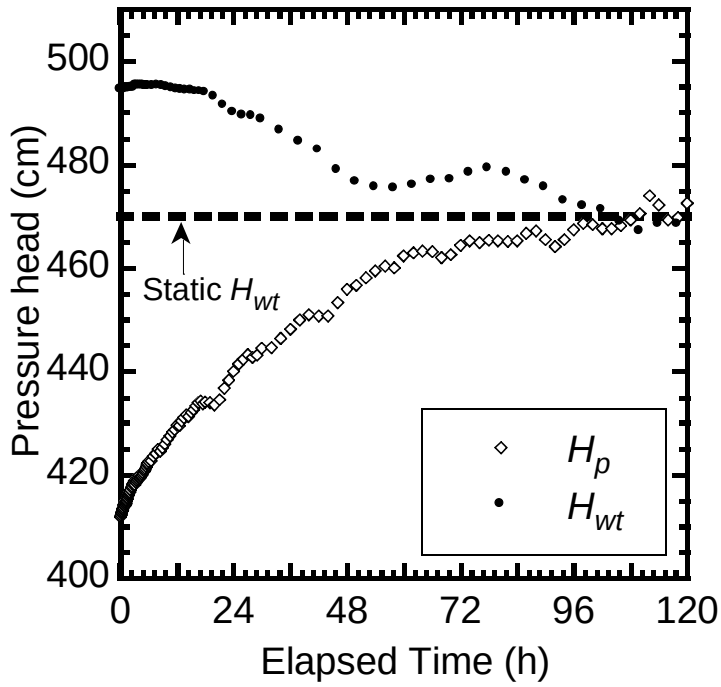
1+21.8	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	500.15	439.48	60.67	1.00	60.67	1.00
0:00:30	500.02	439.48	60.54	1.00	60.54	1.00
0:01:00	499.90	439.48	60.42	1.00	60.42	1.00
0:01:30	499.75	439.48	60.27	0.99	60.27	0.99
0:02:00	499.64	439.48	60.16	0.99	60.16	0.99
0:03:00	499.42	439.48	59.93	0.99	59.93	0.99
0:04:00	499.19	439.48	59.70	0.98	59.70	0.98
0:05:00	498.97	439.48	59.48	0.98	59.48	0.98
0:06:00	498.75	439.48	59.27	0.98	59.27	0.98
0:07:00	498.54	439.48	59.06	0.97	59.06	0.97
0:08:00	498.36	439.48	58.88	0.97	58.88	0.97
0:09:00	498.17	439.48	58.69	0.97	58.69	0.97
0:10:00	497.98	439.48	58.50	0.96	58.50	0.96
0:11:00	497.81	439.48	58.32	0.96	58.32	0.96
0:12:00	497.61	439.48	58.13	0.96	58.13	0.96
0:13:00	497.40	439.48	57.92	0.95	57.92	0.95
0:14:00	497.24	439.48	57.76	0.95	57.76	0.95
0:15:00	497.08	439.48	57.60	0.95	57.60	0.95
0:16:00	496.91	439.48	57.43	0.95	57.43	0.95
0:17:00	496.77	439.48	57.29	0.94	57.29	0.94
0:18:00	496.63	439.48	57.15	0.94	57.15	0.94
0:19:00	496.49	439.48	57.01	0.94	57.01	0.94
0:20:00	496.36	439.48	56.87	0.94	56.87	0.94
0:21:00	496.23	439.48	56.75	0.94	56.75	0.94
0:22:00	496.09	439.48	56.61	0.93	56.61	0.93
0:23:00	495.98	439.48	56.49	0.93	56.49	0.93
0:24:00	495.82	439.48	56.33	0.93	56.33	0.93
0:25:00	495.70	439.48	56.22	0.93	56.22	0.93
0:26:00	495.55	439.48	56.07	0.92	56.07	0.92
0:27:00	495.48	439.48	56.00	0.92	56.00	0.92
0:28:00	495.37	439.48	55.88	0.92	55.88	0.92
0:29:00	495.26	439.48	55.78	0.92	55.78	0.92
0:30:00	495.15	439.48	55.67	0.92	55.67	0.92
0:31:00	495.08	439.48	55.60	0.92	55.60	0.92
0:32:00	494.93	439.48	55.45	0.91	55.45	0.91
0:37:00	494.38	439.48	54.90	0.90	54.90	0.90
0:42:00	493.90	439.48	54.42	0.90	54.42	0.90
0:47:00	493.57	439.48	54.09	0.89	54.09	0.89
0:52:00	493.13	439.48	53.65	0.88	53.65	0.88
0:57:00	491.58	439.10	52.48	0.87	52.10	0.86
1:02:00	491.23	439.10	52.12	0.86	51.75	0.85
1:07:00	491.03	439.10	51.93	0.86	51.55	0.85
1:12:00	490.75	439.10	51.65	0.85	51.27	0.85
1:17:00	490.26	439.10	51.16	0.84	50.78	0.84
1:22:00	489.98	439.10	50.88	0.84	50.50	0.83
1:27:00	489.80	439.10	50.70	0.84	50.32	0.83
1:32:00	489.55	439.10	50.44	0.83	50.06	0.83
1:37:00	489.29	439.10	50.19	0.83	49.81	0.82
1:42:00	489.05	439.10	49.95	0.82	49.57	0.82
1:47:00	488.88	439.10	49.77	0.82	49.40	0.81

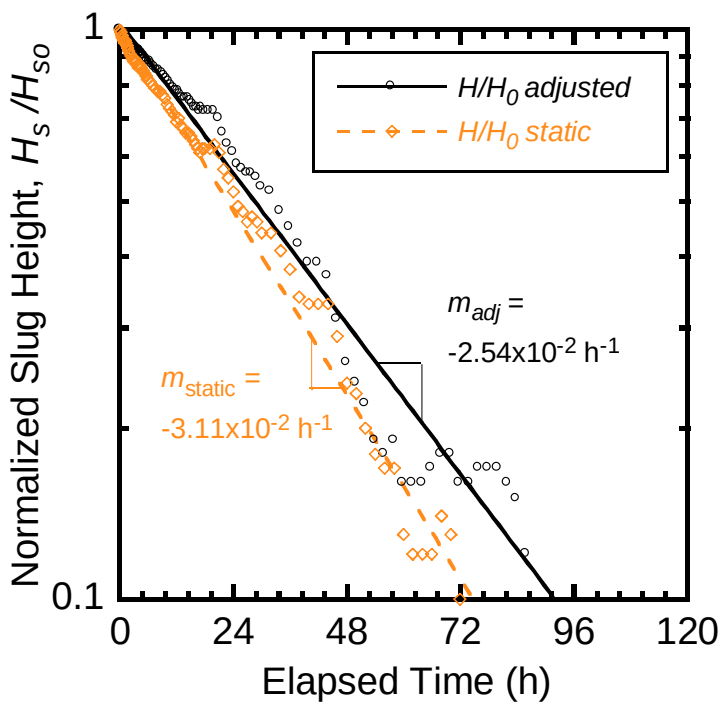
1+21.8	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
1:52:00	488.59	439.10	49.49	0.82	49.11	0.81
1:57:00	488.28	439.66	48.62	0.80	48.80	0.80
2:02:00	488.13	439.66	48.47	0.80	48.65	0.80
2:07:00	487.89	439.66	48.23	0.79	48.41	0.80
2:12:00	487.63	439.66	47.97	0.79	48.15	0.79
2:17:00	487.43	439.66	47.77	0.79	47.95	0.79
2:22:00	487.24	439.66	47.58	0.78	47.76	0.79
2:27:00	486.99	439.66	47.33	0.78	47.51	0.78
2:32:00	486.79	439.66	47.13	0.78	47.31	0.78
2:42:00	486.43	439.66	46.76	0.77	46.94	0.77
2:52:00	486.06	439.66	46.39	0.76	46.57	0.77
3:02:00	484.59	439.33	45.26	0.75	45.11	0.74
3:12:00	484.23	439.33	44.91	0.74	44.75	0.74
3:22:00	483.91	439.33	44.58	0.73	44.43	0.73
3:32:00	483.56	439.33	44.24	0.73	44.08	0.73
3:42:00	483.20	439.33	43.87	0.72	43.71	0.72
3:52:00	482.88	439.33	43.56	0.72	43.40	0.72
4:02:00	481.47	438.92	42.56	0.70	41.99	0.69
4:12:00	481.00	438.92	42.08	0.69	41.52	0.68
4:22:00	480.75	438.92	41.83	0.69	41.27	0.68
4:32:00	480.26	438.92	41.35	0.68	40.78	0.67
4:42:00	479.77	438.92	40.85	0.67	40.29	0.66
4:52:00	479.57	438.92	40.66	0.67	40.09	0.66
5:02:00	478.00	438.25	39.75	0.66	38.52	0.63
5:12:00	477.67	438.25	39.41	0.65	38.18	0.63
5:22:00	477.24	438.25	38.99	0.64	37.76	0.62
5:32:00	476.75	438.25	38.49	0.63	37.26	0.61
5:42:00	476.77	438.25	38.51	0.63	37.29	0.61
5:52:00	476.50	438.25	38.25	0.63	37.02	0.61
6:02:00	476.16	438.26	37.90	0.62	36.68	0.60
6:12:00	475.75	438.26	37.49	0.62	36.27	0.60
6:22:00	475.40	438.26	37.14	0.61	35.92	0.59
6:32:00	474.96	438.26	36.70	0.60	35.48	0.58
7:02:00	474.03	438.29	35.73	0.59	34.55	0.57
7:32:00	473.01	438.29	34.72	0.57	33.53	0.55
8:02:00	472.01	438.08	33.93	0.56	32.53	0.54
8:32:00	471.48	438.08	33.40	0.55	32.00	0.53
9:02:00	470.80	438.01	32.79	0.54	31.32	0.52
9:32:00	470.32	438.01	32.31	0.53	30.84	0.51
10:02:00	469.11	438.06	31.05	0.51	29.63	0.49
10:32:00	468.48	438.06	30.42	0.50	29.00	0.48
11:02:00	467.89	437.93	29.96	0.49	28.41	0.47
11:32:00	467.18	437.93	29.24	0.48	27.70	0.46
12:02:00	466.13	437.78	28.35	0.47	26.65	0.44
12:32:00	465.35	437.78	27.56	0.45	25.86	0.43
13:02:00	465.89	438.43	27.46	0.45	26.41	0.44
13:32:00	465.59	438.43	27.16	0.45	26.11	0.43
14:02:00	464.71	438.36	26.35	0.43	25.23	0.42
14:32:00	464.45	438.36	26.10	0.43	24.97	0.41
15:02:00	463.96	438.24	25.72	0.42	24.48	0.40

1+21.8	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
15:32:00	463.31	438.24	25.08	0.41	23.83	0.39
16:02:00	462.64	438.16	24.48	0.40	23.15	0.38
16:32:00	462.12	438.16	23.96	0.39	22.63	0.37
17:02:00	461.29	437.86	23.43	0.39	21.81	0.36
17:32:00	460.53	437.86	22.67	0.37	21.05	0.35
18:02:00	460.56	438.47	22.09	0.36	21.07	0.35
18:32:00	459.44	438.47	20.97	0.35	19.96	0.33
19:32:00	458.03	438.62	19.42	0.32	18.55	0.31
20:32:00	457.24	438.38	18.86	0.31	17.76	0.29
21:32:00	457.60	439.30	18.30	0.30	18.12	0.30
22:32:00	457.22	439.34	17.88	0.29	17.73	0.29
23:32:00	458.00	440.55	17.46	0.29	18.52	0.31
24:32:00	458.26	440.78	17.48	0.29	18.78	0.31
25:32:00	458.49	440.37	18.13	0.30	19.01	0.31
26:32:00	458.95	441.32	17.63	0.29	19.46	0.32
27:32:00	457.50	440.37	17.13	0.28	18.02	0.30
28:32:00	457.33	440.40	16.93	0.28	17.85	0.29
29:32:00	456.66	440.21	16.45	0.27	17.18	0.28
30:32:00	456.64	440.22	16.41	0.27	17.16	0.28
32:32:00	455.50	439.41	16.09	0.27	16.02	0.26
34:32:00	455.86	440.04	15.82	0.26	16.38	0.27
36:32:00	454.34	439.00	15.34	0.25	14.86	0.24
38:32:00	454.02	439.03	14.99	0.25	14.54	0.24
40:32:00	452.48	438.31	14.17	0.23	12.99	0.21
42:32:00	450.39	438.17	12.22	0.20	10.90	0.18
44:32:00	449.22	437.84	11.38	0.19	9.74	0.16
46:32:00	449.63	438.46	11.17	0.18	10.15	0.17
48:32:00	449.85	438.55	11.30	0.19	10.37	0.17
50:32:00	448.79	438.12	10.67	0.18	9.30	0.15
52:32:00	447.81	437.63	10.19	0.17	8.33	0.14
54:32:00	447.26	437.83	9.43	0.16	7.78	0.13
56:32:00	446.45	437.00	9.45	0.16	6.97	0.11
58:32:00	445.62	437.62	8.00	0.13	6.14	0.10
60:32:00	445.26	437.38	7.89	0.13	5.78	0.10
62:32:00	444.87	437.16	7.71	0.13	5.39	0.09
64:32:00	444.99	437.28	7.70	0.13	5.50	0.09
66:32:00	442.49	437.26	5.22	0.09	3.01	0.05
68:32:00	442.96	437.75	5.21	0.09	3.48	0.06
70:32:00	444.17	438.13	6.04	0.10	4.68	0.08
72:32:00	443.16	437.82	5.35	0.09	3.68	0.06
74:32:00	444.45	438.32	6.13	0.10	4.97	0.08
76:32:00	443.74	437.53	6.21	0.10	4.26	0.07
78:32:00	442.86	437.89	4.97	0.08	3.38	0.06
80:32:00	442.55	437.00	5.55	0.09	3.07	0.05
82:32:00	441.85	437.02	4.83	0.08	2.37	0.04
84:32:00	442.54	437.65	4.89	0.08	3.06	0.05
86:32:00	443.00	437.83	5.17	0.09	3.52	0.06
88:32:00	442.89	437.48	5.40	0.09	3.41	0.06
90:32:00	440.95	436.79	4.16	0.07	1.46	0.02
92:32:00	441.02	437.09	3.93	0.06	1.54	0.03

1+21.8	6.0 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
94:32:00	441.81	437.56	4.25	0.07	2.33	0.04
96:32:00	442.62	437.71	4.90	0.08	3.14	0.05
98:32:00	442.22	437.51	4.71	0.08	2.74	0.05
100:32:00	442.09	436.98	5.11	0.08	2.61	0.04
102:32:00	441.62	437.15	4.47	0.07	2.14	0.04
104:32:00	440.84	436.64	4.20	0.07	1.36	0.02
106:32:00	440.33	436.23	4.09	0.07	0.85	0.01
108:32:00	440.80	436.42	4.38	0.07	1.32	0.02
110:32:00	440.97	436.24	4.73	0.08	1.49	0.02
112:32:00	439.56	435.48	4.08	0.07	0.08	0.00
114:32:00	437.36	434.85	2.51	0.04	-2.13	-0.04
116:32:00	437.45	435.76	1.69	0.03	-2.03	-0.03
118:32:00	437.48	435.58	1.90	0.03	-2.00	-0.03

Test Location (m)	**1+21.8**	**Effective Stress on date of test (kPa)**	**11.1**
Depth (m)	6.0	**Test # in well**	3
Well #	11	**Test Type**	Rate of Rise
Start Date of Test	1/25/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	470.1
R_e (cm)	29.7	**Adjusted/Static Initial Slug Height, H_{S0} (cm)**	82.6/58.1
k_{adj} (cm/s)	2.09E-07	**k_{static} (cm/s)**	2.55E-07



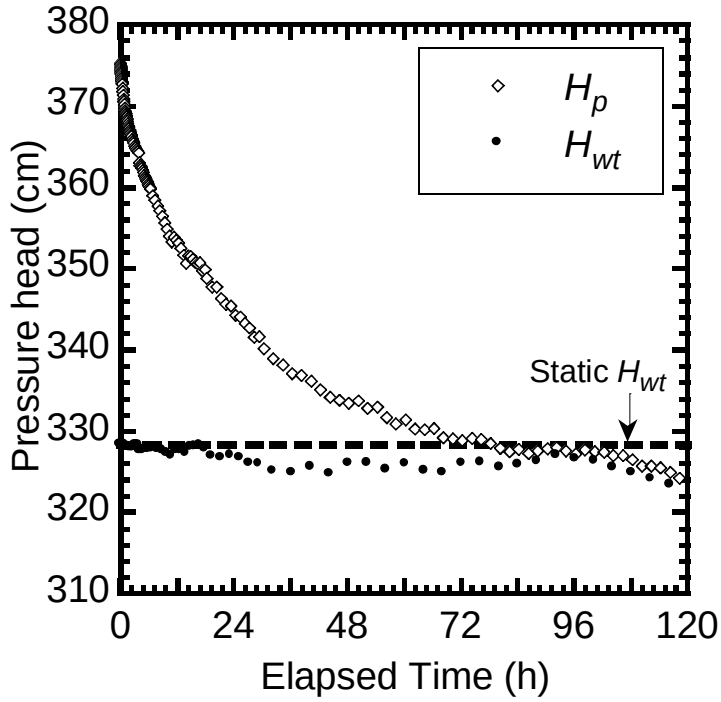


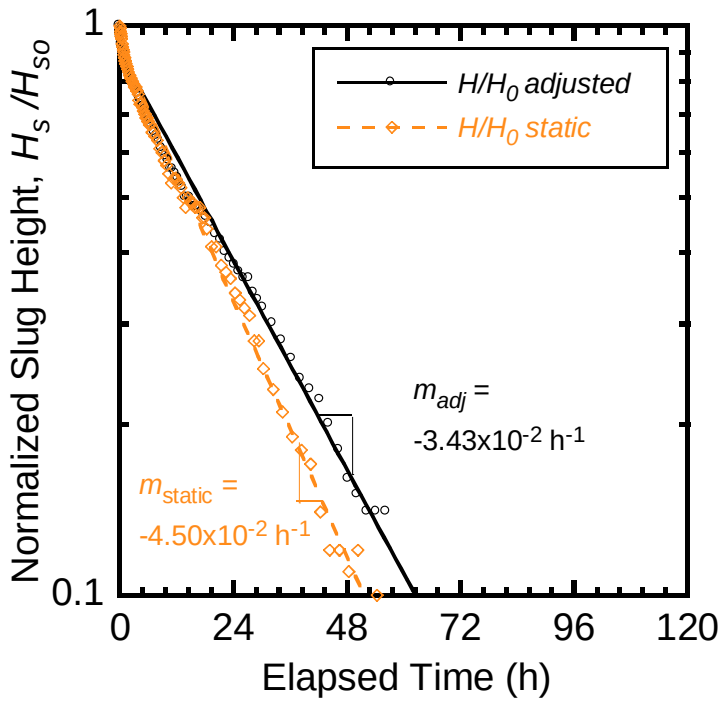
1+21.8	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	411.98	494.54	82.56	1.00	58.09	1.00
0:05:00	412.32	494.54	82.23	1.00	57.75	0.99
0:10:00	412.60	494.54	81.95	0.99	57.48	0.99
0:15:00	412.81	494.54	81.73	0.99	57.26	0.99
0:20:00	413.06	494.54	81.49	0.99	57.02	0.98
0:25:00	413.26	494.54	81.28	0.98	56.81	0.98
0:30:00	413.54	494.54	81.00	0.98	56.53	0.97
0:35:00	413.80	494.54	80.74	0.98	56.27	0.97
0:40:00	414.05	494.54	80.50	0.98	56.03	0.96
0:45:00	414.29	494.54	80.26	0.97	55.78	0.96
0:50:00	414.55	494.54	79.99	0.97	55.52	0.96
0:55:00	414.84	494.54	79.70	0.97	55.23	0.95
1:00:00	414.12	494.68	80.56	0.98	55.95	0.96
1:05:00	414.33	494.68	80.35	0.97	55.75	0.96
1:10:00	414.57	494.68	80.11	0.97	55.50	0.96
1:15:00	414.82	494.68	79.85	0.97	55.25	0.95
1:20:00	415.14	494.68	79.53	0.96	54.93	0.95
1:25:00	415.39	494.68	79.29	0.96	54.69	0.94
1:30:00	415.69	494.68	78.99	0.96	54.39	0.94
1:35:00	415.94	494.68	78.74	0.95	54.13	0.93
1:40:00	416.18	494.68	78.49	0.95	53.89	0.93
1:45:00	416.41	494.68	78.26	0.95	53.66	0.92
1:50:00	416.61	494.68	78.07	0.95	53.47	0.92
1:55:00	416.81	494.68	77.86	0.94	53.26	0.92
2:05:00	417.18	494.89	77.71	0.94	52.89	0.91
2:15:00	417.63	494.89	77.26	0.94	52.44	0.90
2:25:00	417.90	494.89	77.00	0.93	52.18	0.90
2:35:00	418.30	494.89	76.60	0.93	51.77	0.89
2:45:00	418.63	494.89	76.26	0.92	51.44	0.89
2:55:00	418.84	494.89	76.06	0.92	51.23	0.88
3:05:00	418.21	495.22	77.01	0.93	51.86	0.89
3:15:00	418.67	495.22	76.55	0.93	51.40	0.88
3:25:00	419.03	495.22	76.20	0.92	51.04	0.88
3:35:00	419.28	495.22	75.94	0.92	50.79	0.87
3:45:00	419.60	495.22	75.62	0.92	50.47	0.87
3:55:00	420.04	495.22	75.18	0.91	50.03	0.86
4:05:00	419.40	495.24	75.84	0.92	50.67	0.87
4:15:00	419.62	495.24	75.62	0.92	50.45	0.87
4:25:00	419.93	495.24	75.31	0.91	50.14	0.86
4:35:00	420.08	495.24	75.16	0.91	49.99	0.86
4:45:00	420.41	495.24	74.82	0.91	49.66	0.85
4:55:00	420.77	495.24	74.47	0.90	49.30	0.85
5:05:00	421.03	495.21	74.19	0.90	49.05	0.84
5:15:00	421.31	495.21	73.90	0.90	48.76	0.84
5:25:00	421.72	495.21	73.50	0.89	48.36	0.83
5:35:00	422.08	495.21	73.13	0.89	47.99	0.83
5:45:00	422.41	495.21	72.81	0.88	47.67	0.82
5:55:00	422.72	495.21	72.50	0.88	47.35	0.82
6:25:00	422.78	495.12	72.35	0.88	47.29	0.81
6:55:00	423.64	495.12	71.48	0.87	46.43	0.80

1+21.8	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
7:25:00	424.24	495.22	70.98	0.86	45.83	0.79
7:55:00	425.04	495.22	70.18	0.85	45.04	0.78
8:25:00	424.75	495.18	70.43	0.85	45.32	0.78
8:55:00	425.42	495.18	69.76	0.84	44.65	0.77
9:25:00	426.03	494.95	68.92	0.83	44.04	0.76
9:55:00	426.88	494.95	68.07	0.82	43.19	0.74
10:25:00	427.64	494.73	67.09	0.81	42.43	0.73
10:55:00	428.36	494.73	66.37	0.80	41.71	0.72
11:25:00	428.89	494.50	65.61	0.79	41.19	0.71
11:55:00	429.77	494.50	64.73	0.78	40.30	0.69
12:25:00	429.62	494.34	64.72	0.78	40.46	0.70
12:55:00	430.48	494.34	63.86	0.77	39.59	0.68
13:25:00	431.22	494.21	63.00	0.76	38.85	0.67
13:55:00	431.70	494.21	62.51	0.76	38.37	0.66
14:25:00	431.46	494.21	62.75	0.76	38.61	0.66
14:55:00	432.22	494.21	61.99	0.75	37.85	0.65
15:25:00	432.75	494.08	61.32	0.74	37.32	0.64
15:55:00	433.42	494.08	60.66	0.73	36.65	0.63
16:25:00	434.05	494.05	59.99	0.73	36.02	0.62
16:55:00	434.42	494.05	59.62	0.72	35.65	0.61
17:25:00	433.90	493.92	60.02	0.73	36.17	0.62
17:55:00	434.16	493.92	59.75	0.72	35.91	0.62
18:55:00	434.05	493.68	59.63	0.72	36.02	0.62
19:55:00	433.65	493.14	59.50	0.72	36.43	0.63
20:55:00	434.59	492.28	57.70	0.70	35.49	0.61
21:55:00	436.92	491.39	54.47	0.66	33.15	0.57
22:55:00	438.40	490.59	52.19	0.63	31.67	0.55
23:55:00	440.09	490.05	49.95	0.61	29.98	0.52
24:55:00	441.53	489.67	48.14	0.58	28.54	0.49
25:55:00	442.48	489.46	46.98	0.57	27.60	0.48
26:55:00	443.35	489.39	46.04	0.56	26.72	0.46
27:55:00	442.77	489.31	46.54	0.56	27.30	0.47
28:55:00	443.24	489.05	45.80	0.55	26.83	0.46
29:55:00	444.60	488.70	44.10	0.53	25.48	0.44
31:55:00	444.72	487.81	43.09	0.52	25.35	0.44
33:55:00	446.50	486.54	40.04	0.48	23.57	0.41
35:55:00	448.26	485.43	37.17	0.45	21.81	0.38
37:55:00	450.07	484.42	34.34	0.42	20.00	0.34
39:55:00	451.07	483.57	32.51	0.39	19.01	0.33
41:55:00	450.81	482.77	31.96	0.39	19.26	0.33
43:55:00	450.86	481.19	30.33	0.37	19.21	0.33
45:55:00	453.36	478.98	25.62	0.31	16.72	0.29
47:55:00	455.91	477.38	21.46	0.26	14.16	0.24
49:55:00	456.73	476.59	19.86	0.24	13.34	0.23
51:55:00	458.21	476.16	17.94	0.22	11.86	0.20
53:55:00	459.58	475.59	16.00	0.19	10.49	0.18
55:55:00	460.44	475.61	15.17	0.18	9.64	0.17
57:55:00	460.06	475.44	15.37	0.19	10.01	0.17
59:55:00	462.41	475.55	13.15	0.16	7.67	0.13
61:55:00	462.96	475.93	12.96	0.16	7.11	0.12

1+21.8	6.0 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
63:55:00	463.34	476.43	13.09	0.16	6.73	0.12
65:55:00	463.17	476.94	13.77	0.17	6.90	0.12
67:55:00	462.14	477.31	15.18	0.18	7.94	0.14
69:55:00	462.63	477.12	14.50	0.18	7.45	0.13
71:55:00	464.41	477.61	13.20	0.16	5.67	0.10
73:55:00	465.33	478.44	13.11	0.16	4.74	0.08
75:55:00	464.96	479.09	14.13	0.17	5.11	0.09
77:55:00	465.45	479.27	13.82	0.17	4.62	0.08
79:55:00	465.30	479.02	13.72	0.17	4.77	0.08
81:55:00	465.29	478.44	13.15	0.16	4.78	0.08
83:55:00	465.39	477.67	12.27	0.15	4.68	0.08
85:55:00	466.83	476.88	10.05	0.12	3.24	0.06
87:55:00	467.23	476.26	9.03	0.11	2.84	0.05
89:55:00	465.63	475.65	10.03	0.12	4.45	0.08
91:55:00	464.20	474.58	10.37	0.13	5.87	0.10
93:55:00	465.61	472.93	7.33	0.09	4.47	0.08
95:55:00	467.50	472.02	4.52	0.05	2.58	0.04
97:55:00	468.72	471.91	3.19	0.04	1.35	0.02
99:55:00	468.48	471.85	3.37	0.04	1.59	0.03
101:55:00	467.72	471.25	3.53	0.04	2.35	0.04
103:55:00	467.74	470.25	2.51	0.03	2.33	0.04
105:55:00	468.24	468.95	0.70	0.01	1.83	0.03
107:55:00	469.40	467.81	-1.59	-0.02	0.67	0.01
109:55:00	470.60	467.12	-3.48	-0.04	-0.53	-0.01
111:55:00	474.02	467.08	-6.94	-0.08	-3.95	-0.07
113:55:00	472.32	468.46	-3.86	-0.05	-2.25	-0.04
115:55:00	469.33	469.07	-0.26	0.00	0.75	0.01
117:55:00	469.82	468.49	-1.33	-0.02	0.25	0.00
119:55:00	472.65	468.56	-4.09	-0.05	-2.58	-0.04

Test Location (m)	**1+22.4**	**Effective Stress on date of test (kPa)**	**8.5**
Depth (m)	4.5	**Test # in well**	1
Well #	12	**Test Type**	Rate of Fall
Start Date of Test	11/21/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	328.3
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	46.9
k_{adj} (cm/s)	2.81E-07	**k_{static} (cm/s)**	3.69E-07



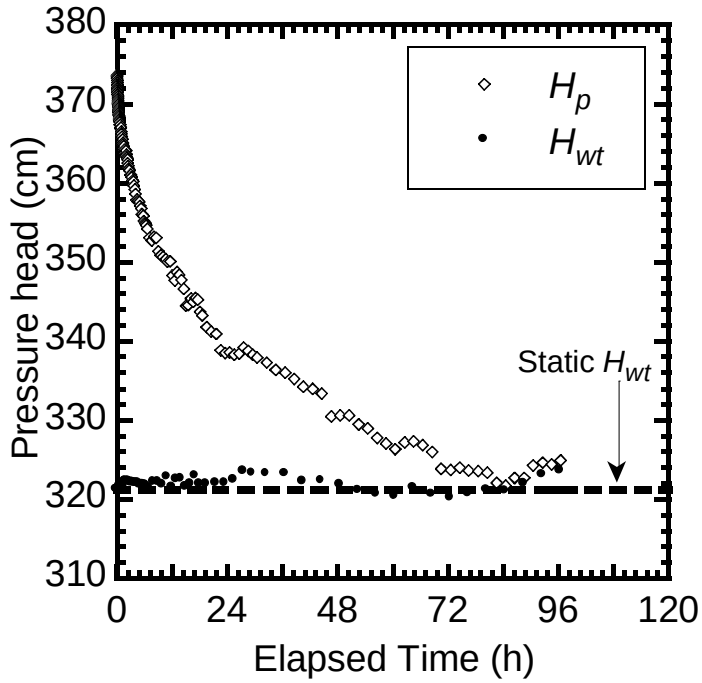


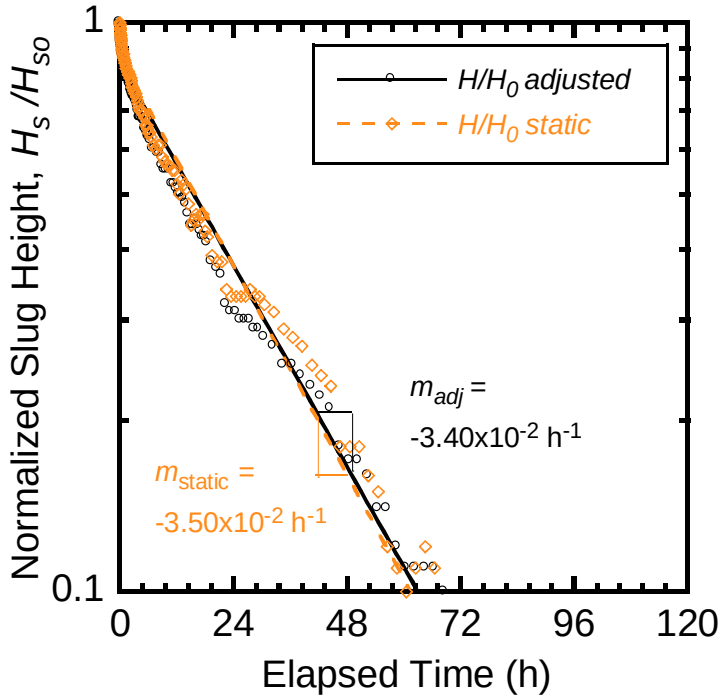
1+22.4	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	375.22	328.34	46.89	1.00	46.89	1.00
0:01:00	375.07	328.34	46.74	1.00	46.74	1.00
0:02:00	374.91	328.34	46.58	0.99	46.58	0.99
0:03:00	374.77	328.34	46.44	0.99	46.44	0.99
0:04:00	374.59	328.34	46.25	0.99	46.25	0.99
0:05:00	374.47	328.34	46.14	0.98	46.14	0.98
0:06:00	374.31	328.34	45.98	0.98	45.98	0.98
0:07:00	374.22	328.34	45.88	0.98	45.88	0.98
0:08:00	374.13	328.34	45.79	0.98	45.79	0.98
0:09:00	373.98	328.34	45.64	0.97	45.64	0.97
0:10:00	373.81	328.34	45.47	0.97	45.47	0.97
0:11:00	373.71	328.34	45.38	0.97	45.38	0.97
0:12:00	373.58	328.34	45.24	0.96	45.24	0.96
0:13:00	373.51	328.34	45.17	0.96	45.17	0.96
0:14:00	373.38	328.34	45.04	0.96	45.04	0.96
0:15:00	373.23	328.34	44.89	0.96	44.89	0.96
0:16:00	373.12	328.34	44.78	0.96	44.78	0.96
0:17:00	372.98	328.34	44.64	0.95	44.64	0.95
0:18:00	372.89	328.34	44.55	0.95	44.55	0.95
0:19:00	372.76	328.34	44.42	0.95	44.42	0.95
0:20:00	372.67	328.34	44.33	0.95	44.33	0.95
0:25:00	372.16	328.34	43.82	0.93	43.82	0.93
0:30:00	371.79	328.34	43.46	0.93	43.46	0.93
0:35:00	371.32	328.34	42.98	0.92	42.98	0.92
0:40:00	370.87	328.34	42.54	0.91	42.54	0.91
0:45:00	370.55	328.34	42.21	0.90	42.21	0.90
0:50:00	370.19	328.34	41.86	0.89	41.86	0.89
0:55:00	369.79	328.34	41.45	0.88	41.45	0.88
1:00:00	369.45	328.07	41.37	0.88	41.11	0.88
1:05:00	369.26	328.07	41.19	0.88	40.92	0.87
1:10:00	369.10	328.07	41.03	0.88	40.76	0.87
1:15:00	368.87	328.07	40.80	0.87	40.53	0.86
1:20:00	368.71	328.07	40.64	0.87	40.37	0.86
1:25:00	368.41	328.07	40.34	0.86	40.07	0.85
1:30:00	368.15	328.07	40.07	0.85	39.81	0.85
1:35:00	367.88	328.07	39.81	0.85	39.54	0.84
1:40:00	367.60	328.07	39.53	0.84	39.27	0.84
1:45:00	367.41	328.07	39.34	0.84	39.07	0.83
1:50:00	367.30	328.07	39.23	0.84	38.97	0.83
1:55:00	367.02	328.07	38.94	0.83	38.68	0.82
2:00:00	366.80	328.02	38.78	0.83	38.46	0.82
2:05:00	366.60	328.02	38.58	0.82	38.27	0.82
2:10:00	366.45	328.02	38.43	0.82	38.12	0.81
2:15:00	366.44	328.02	38.42	0.82	38.10	0.81
2:20:00	366.27	328.02	38.25	0.82	37.93	0.81
2:30:00	365.97	328.02	37.95	0.81	37.63	0.80
2:40:00	365.65	328.02	37.63	0.80	37.31	0.80
2:50:00	365.41	328.02	37.39	0.80	37.07	0.79
3:00:00	365.11	328.26	36.85	0.79	36.77	0.78
3:10:00	364.85	328.26	36.60	0.78	36.52	0.78

1+22.4	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
3:20:00	364.68	328.26	36.42	0.78	36.35	0.78
3:30:00	364.51	328.26	36.25	0.77	36.17	0.77
3:40:00	364.45	328.26	36.19	0.77	36.11	0.77
3:50:00	364.20	328.26	35.94	0.77	35.86	0.76
4:00:00	363.04	327.63	35.41	0.76	34.70	0.74
4:10:00	362.65	327.63	35.02	0.75	34.31	0.73
4:20:00	362.62	327.63	34.99	0.75	34.28	0.73
4:30:00	362.38	327.63	34.76	0.74	34.05	0.73
4:40:00	362.07	327.63	34.45	0.73	33.74	0.72
4:50:00	361.84	327.63	34.22	0.73	33.51	0.71
5:00:00	361.48	327.73	33.75	0.72	33.14	0.71
5:10:00	361.25	327.73	33.52	0.71	32.91	0.70
5:20:00	361.06	327.73	33.34	0.71	32.73	0.70
5:30:00	360.83	327.73	33.11	0.71	32.50	0.69
5:40:00	360.68	327.73	32.96	0.70	32.35	0.69
5:50:00	360.41	327.73	32.68	0.70	32.07	0.68
6:00:00	360.18	327.77	32.40	0.69	31.84	0.68
6:10:00	359.96	327.77	32.19	0.69	31.62	0.67
6:20:00	359.83	327.77	32.06	0.68	31.49	0.67
6:50:00	359.00	327.77	31.23	0.67	30.67	0.65
7:20:00	358.38	327.71	30.67	0.65	30.05	0.64
7:50:00	357.69	327.71	29.98	0.64	29.35	0.63
8:20:00	357.10	327.62	29.49	0.63	28.77	0.61
8:50:00	356.40	327.62	28.79	0.61	28.07	0.60
9:20:00	355.61	327.30	28.31	0.60	27.27	0.58
9:50:00	354.84	327.30	27.54	0.59	26.50	0.57
10:20:00	354.03	329.75	27.09	0.58	25.70	0.55
10:50:00	353.31	329.75	26.36	0.56	24.97	0.53
11:20:00	353.83	327.63	26.20	0.56	25.50	0.54
11:50:00	353.50	327.63	25.87	0.55	25.16	0.54
12:20:00	353.13	327.60	25.53	0.54	24.80	0.53
12:50:00	352.49	327.60	24.89	0.53	24.15	0.52
13:20:00	351.66	327.26	24.40	0.52	23.32	0.50
13:50:00	350.67	327.26	23.41	0.50	22.33	0.48
14:20:00	351.62	328.03	23.59	0.50	23.28	0.50
14:50:00	351.54	328.03	23.51	0.50	23.20	0.49
15:20:00	351.18	328.11	23.07	0.49	22.85	0.49
15:50:00	350.70	328.11	22.59	0.48	22.36	0.48
16:20:00	350.62	328.24	22.38	0.48	22.28	0.48
16:50:00	350.77	328.24	22.53	0.48	22.43	0.48
17:20:00	349.74	327.80	21.94	0.47	21.40	0.46
17:50:00	349.90	327.80	22.10	0.47	21.56	0.46
18:20:00	348.82	327.41	21.42	0.46	20.49	0.44
19:20:00	347.77	326.84	20.93	0.45	19.43	0.41
20:20:00	347.71	327.42	20.29	0.43	19.37	0.41
21:20:00	346.30	326.73	19.57	0.42	17.96	0.38
22:20:00	345.61	326.74	18.87	0.40	17.27	0.37
23:20:00	345.42	327.01	18.40	0.39	17.08	0.36
24:20:00	344.27	326.41	17.86	0.38	15.93	0.34
25:20:00	344.03	326.72	17.31	0.37	15.69	0.33

1+22.4	4.5 m					Test #1
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
26:20:00	343.25	326.28	16.97	0.36	14.91	0.32
27:20:00	342.70	326.02	16.68	0.36	14.37	0.31
28:20:00	341.57	325.48	16.09	0.34	13.23	0.28
29:20:00	341.60	325.93	15.68	0.33	13.27	0.28
30:20:00	340.16	325.09	15.06	0.32	11.82	0.25
32:20:00	338.91	325.03	13.89	0.30	10.58	0.23
34:20:00	338.13	325.15	12.99	0.28	9.80	0.21
36:20:00	337.08	324.90	12.18	0.26	8.74	0.19
38:20:00	336.86	325.60	11.27	0.24	8.53	0.18
40:20:00	336.19	325.60	10.59	0.23	7.85	0.17
42:20:00	335.11	324.89	10.22	0.22	6.77	0.14
44:20:00	334.15	324.76	9.39	0.20	5.82	0.12
46:20:00	333.83	325.50	8.33	0.18	5.49	0.12
48:20:00	333.48	326.03	7.45	0.16	5.15	0.11
50:20:00	333.78	326.54	7.23	0.15	5.44	0.12
52:20:00	332.79	326.09	6.70	0.14	4.45	0.09
54:20:00	332.97	326.20	6.77	0.14	4.64	0.10
56:20:00	331.66	325.24	6.42	0.14	3.32	0.07
58:20:00	330.89	324.99	5.89	0.13	2.55	0.05
60:20:00	331.42	325.90	5.53	0.12	3.09	0.07
62:20:00	330.23	324.83	5.40	0.12	1.89	0.04
64:20:00	330.20	325.07	5.12	0.11	1.86	0.04
66:20:00	330.31	325.34	4.97	0.11	1.98	0.04
68:20:00	329.17	324.83	4.35	0.09	0.84	0.02
70:20:00	329.04	325.60	3.44	0.07	0.70	0.01
72:20:00	328.84	326.03	2.81	0.06	0.50	0.01
74:20:00	329.09	326.27	2.82	0.06	0.75	0.02
76:20:00	328.96	326.13	2.83	0.06	0.62	0.01
78:20:00	328.52	325.84	2.68	0.06	0.19	0.00
80:20:00	327.95	325.53	2.42	0.05	-0.39	-0.01
82:20:00	327.47	325.52	1.95	0.04	-0.86	-0.02
84:20:00	327.74	325.88	1.86	0.04	-0.59	-0.01
86:20:00	327.27	325.97	1.30	0.03	-1.07	-0.02
88:20:00	327.58	326.31	1.26	0.03	-0.76	-0.02
90:20:00	327.83	326.70	1.12	0.02	-0.51	-0.01
92:20:00	328.02	327.02	1.00	0.02	-0.32	-0.01
94:20:00	327.57	329.78	0.58	0.01	-0.77	-0.02
96:20:00	327.20	326.55	0.65	0.01	-1.14	-0.02
98:20:00	327.70	326.72	0.98	0.02	-0.63	-0.01
100:20:00	327.51	326.36	1.16	0.02	-0.82	-0.02
102:20:00	327.44	326.13	1.30	0.03	-0.90	-0.02
104:20:00	327.02	325.48	1.54	0.03	-1.32	-0.03
106:20:00	329.76	325.27	1.69	0.04	-1.38	-0.03
108:20:00	326.47	324.89	1.58	0.03	-1.87	-0.04
110:20:00	325.69	324.37	1.32	0.03	-2.65	-0.06
112:20:00	325.75	324.10	1.65	0.04	-2.58	-0.06
114:20:00	325.51	323.68	1.83	0.04	-2.83	-0.06
116:20:00	324.94	323.35	1.59	0.03	-3.40	-0.07
118:20:00	324.26	323.08	1.18	0.03	-4.08	-0.09

Test Location (m)	**1+22.4**	**Effective Stress on date of test (kPa)**	**8.5**
Depth (m)	4.5	**Test # in well**	2
Well #	12	**Test Type**	Rate of Fall
Start Date of Test	12/8/2017	**Static Equilibrium Water Level, H_{wt} (cm)**	321.2
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	52.5
k_{adj} (cm/s)	2.79E-07	**k_{static} (cm/s)**	2.88E-07



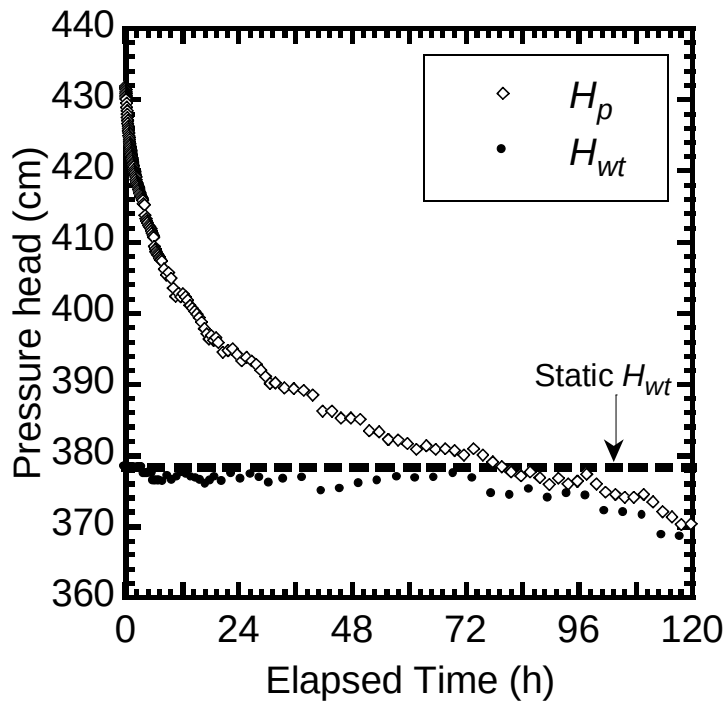


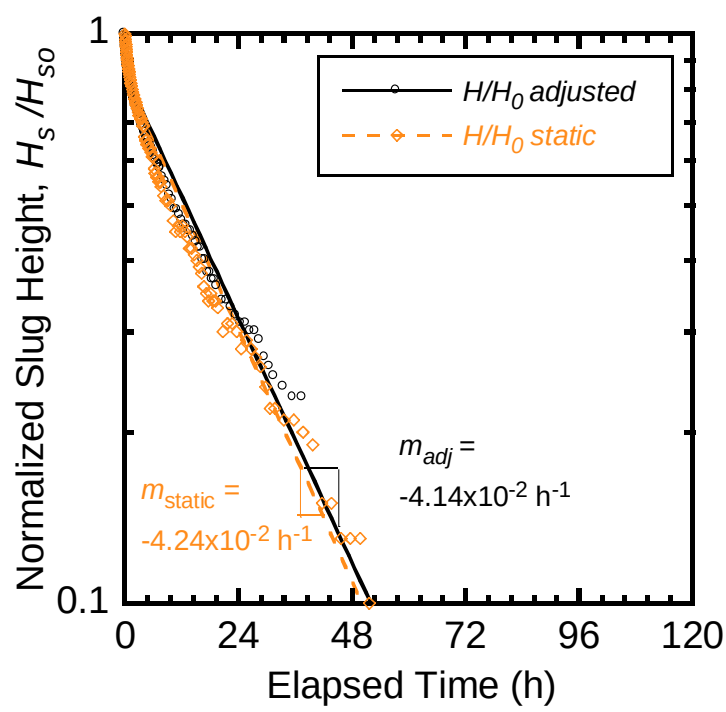
1+22.4	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	373.65	321.20	52.45	1.00	52.45	1.00
0:00:30	373.44	321.20	52.25	1.00	52.25	1.00
0:01:00	373.28	321.20	52.08	0.99	52.08	0.99
0:02:00	372.94	321.20	51.74	0.99	51.74	0.99
0:03:00	372.66	321.20	51.46	0.98	51.46	0.98
0:04:00	372.41	321.20	51.21	0.98	51.21	0.98
0:05:00	372.14	321.20	50.94	0.97	50.94	0.97
0:06:00	371.91	321.20	50.71	0.97	50.71	0.97
0:07:00	371.65	321.20	50.45	0.96	50.45	0.96
0:08:00	371.45	321.20	50.25	0.96	50.25	0.96
0:09:00	371.22	321.20	50.02	0.95	50.02	0.95
0:10:00	370.95	321.20	49.75	0.95	49.75	0.95
0:11:00	370.70	321.20	49.50	0.94	49.50	0.94
0:12:00	370.45	321.20	49.25	0.94	49.25	0.94
0:13:00	370.27	321.20	49.07	0.94	49.07	0.94
0:14:00	370.11	321.20	48.91	0.93	48.91	0.93
0:15:00	370.03	321.20	48.83	0.93	48.83	0.93
0:16:00	369.91	321.20	48.71	0.93	48.71	0.93
0:17:00	369.76	321.20	48.56	0.93	48.56	0.93
0:18:00	369.61	321.20	48.41	0.92	48.41	0.92
0:19:00	369.46	321.20	48.26	0.92	48.26	0.92
0:20:00	369.31	321.20	48.11	0.92	48.11	0.92
0:21:00	369.15	321.20	47.95	0.91	47.95	0.91
0:22:00	369.01	321.20	47.81	0.91	47.81	0.91
0:23:00	368.83	321.20	47.63	0.91	47.63	0.91
0:24:00	368.64	321.20	47.44	0.90	47.44	0.90
0:25:00	368.47	321.20	47.27	0.90	47.27	0.90
0:26:00	368.32	321.20	47.12	0.90	47.12	0.90
0:27:00	368.17	321.20	46.97	0.90	46.97	0.90
0:28:00	368.05	321.20	46.85	0.89	46.85	0.89
0:29:00	367.99	321.20	46.79	0.89	46.79	0.89
0:30:00	367.86	321.20	46.66	0.89	46.66	0.89
0:31:00	367.71	321.20	46.51	0.89	46.51	0.89
0:36:00	367.33	321.20	46.13	0.88	46.13	0.88
0:41:00	366.91	321.20	45.71	0.87	45.71	0.87
0:46:00	367.34	321.56	45.78	0.87	46.14	0.88
0:51:00	366.97	321.56	45.41	0.87	45.77	0.87
0:56:00	366.53	321.56	44.98	0.86	45.33	0.86
1:01:00	366.23	321.56	44.68	0.85	45.04	0.86
1:06:00	365.87	321.56	44.31	0.84	44.67	0.85
1:11:00	365.54	321.56	43.99	0.84	44.34	0.85
1:16:00	365.10	321.56	43.54	0.83	43.90	0.84
1:21:00	364.80	321.56	43.24	0.82	43.60	0.83
1:26:00	364.67	321.56	43.11	0.82	43.47	0.83
1:31:00	364.20	321.56	42.64	0.81	43.00	0.82
1:36:00	363.99	321.56	42.44	0.81	42.79	0.82
1:41:00	363.53	321.56	41.97	0.80	42.33	0.81
1:46:00	364.24	322.22	42.02	0.80	43.04	0.82
1:51:00	364.08	322.22	41.85	0.80	42.88	0.82
1:56:00	364.06	322.22	41.83	0.80	42.86	0.82

1+22.4	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:01:00	363.61	322.22	41.38	0.79	42.41	0.81
2:06:00	363.34	322.22	41.12	0.78	42.14	0.80
2:11:00	363.14	322.22	40.91	0.78	41.94	0.80
2:16:00	362.94	322.22	40.72	0.78	41.74	0.80
2:21:00	362.50	322.22	40.28	0.77	41.30	0.79
2:26:00	362.18	322.22	39.96	0.76	40.98	0.78
2:31:00	361.85	322.22	39.62	0.76	40.65	0.77
2:41:00	361.63	322.22	39.40	0.75	40.43	0.77
2:51:00	361.06	322.08	38.98	0.74	39.87	0.76
3:01:00	361.04	322.08	38.96	0.74	39.84	0.76
3:11:00	360.76	322.08	38.68	0.74	39.57	0.75
3:21:00	360.36	322.08	38.28	0.73	39.16	0.75
3:31:00	360.21	322.08	38.13	0.73	39.01	0.74
3:41:00	359.66	322.08	37.58	0.72	38.46	0.73
3:51:00	359.21	321.99	37.23	0.71	38.01	0.72
4:01:00	358.65	321.99	36.66	0.70	37.45	0.71
4:11:00	357.91	321.99	35.93	0.68	36.71	0.70
4:21:00	357.90	321.99	35.91	0.68	36.70	0.70
4:31:00	357.71	321.99	35.72	0.68	36.51	0.70
4:41:00	357.69	321.99	35.71	0.68	36.49	0.70
4:51:00	357.64	321.78	35.85	0.68	36.44	0.69
5:01:00	357.16	321.78	35.38	0.67	35.97	0.69
5:11:00	356.80	321.78	35.01	0.67	35.60	0.68
5:21:00	356.06	321.78	34.28	0.65	34.86	0.66
5:31:00	356.06	321.78	34.28	0.65	34.86	0.66
5:41:00	355.85	321.78	34.07	0.65	34.65	0.66
5:51:00	355.25	321.73	33.53	0.64	34.06	0.65
6:01:00	354.99	321.73	33.27	0.63	33.79	0.64
6:11:00	354.84	321.73	33.12	0.63	33.64	0.64
6:21:00	354.66	321.73	32.93	0.63	33.46	0.64
6:31:00	354.21	321.73	32.48	0.62	33.01	0.63
7:01:00	353.06	321.41	31.65	0.60	31.86	0.61
7:31:00	352.73	321.41	31.32	0.60	31.53	0.60
8:01:00	353.20	322.15	31.06	0.59	32.00	0.61
8:31:00	353.05	322.15	30.91	0.59	31.86	0.61
9:01:00	351.40	322.18	29.22	0.56	30.20	0.58
9:31:00	350.89	322.18	28.71	0.55	29.69	0.57
10:01:00	350.66	321.80	28.86	0.55	29.46	0.56
10:31:00	350.39	321.80	28.59	0.55	29.19	0.56
11:01:00	350.00	322.79	27.21	0.52	28.80	0.55
11:31:00	350.06	322.79	27.27	0.52	28.86	0.55
12:01:00	348.29	321.44	26.85	0.51	27.09	0.52
12:31:00	347.68	321.44	26.24	0.50	26.48	0.50
13:01:00	348.75	322.50	26.24	0.50	27.55	0.53
13:31:00	348.40	322.50	25.90	0.49	27.21	0.52
14:01:00	347.78	322.58	25.20	0.48	26.58	0.51
14:31:00	346.62	322.58	24.04	0.46	25.42	0.48
15:01:00	344.50	321.54	22.96	0.44	23.30	0.44
15:31:00	344.57	321.54	23.03	0.44	23.37	0.45
16:01:00	345.43	321.84	23.59	0.45	24.23	0.46

1+22.4	4.5 m					Test #2
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
16:31:00	344.95	321.84	23.12	0.44	23.76	0.45
17:01:00	345.47	322.96	22.50	0.43	24.27	0.46
17:31:00	345.24	322.96	22.27	0.42	24.04	0.46
18:01:00	343.68	321.84	21.84	0.42	22.48	0.43
18:31:00	343.24	321.84	21.40	0.41	22.04	0.42
19:31:00	341.78	321.89	19.89	0.38	20.58	0.39
20:31:00	341.25	321.59	19.66	0.37	20.05	0.38
21:31:00	340.94	322.03	18.91	0.36	19.74	0.38
22:31:00	338.89	321.90	16.99	0.32	17.69	0.34
23:31:00	338.48	322.04	16.44	0.31	17.28	0.33
24:31:00	338.56	322.12	16.44	0.31	17.36	0.33
25:31:00	338.27	322.43	15.84	0.30	17.07	0.33
26:31:00	338.46	322.88	15.58	0.30	17.26	0.33
27:31:00	339.25	323.53	15.72	0.30	18.05	0.34
28:31:00	338.77	323.37	15.40	0.29	17.57	0.33
29:31:00	338.27	323.24	15.03	0.29	17.07	0.33
30:31:00	337.92	323.12	14.80	0.28	16.72	0.32
32:31:00	337.32	323.14	14.18	0.27	16.12	0.31
34:31:00	336.39	323.15	13.24	0.25	15.19	0.29
36:31:00	336.03	323.13	12.91	0.25	14.83	0.28
38:31:00	335.24	322.61	12.63	0.24	14.05	0.27
40:31:00	334.23	322.26	11.97	0.23	13.03	0.25
42:31:00	333.95	322.18	11.78	0.22	12.75	0.24
44:31:00	333.40	322.30	11.10	0.21	12.20	0.23
46:31:00	330.45	321.03	9.42	0.18	9.25	0.18
48:31:00	330.63	321.81	8.82	0.17	9.43	0.18
50:31:00	330.63	321.72	8.91	0.17	9.43	0.18
52:31:00	329.47	321.08	8.39	0.16	8.27	0.16
54:31:00	329.00	321.47	7.54	0.14	7.80	0.15
56:31:00	327.75	320.58	7.17	0.14	6.55	0.12
58:31:00	327.06	320.79	6.27	0.12	5.86	0.11
60:31:00	326.33	320.36	5.97	0.11	5.13	0.10
62:31:00	327.19	321.23	5.96	0.11	5.99	0.11
64:31:00	327.37	321.37	6.00	0.11	6.17	0.12
66:31:00	326.89	320.93	5.97	0.11	5.69	0.11
68:31:00	326.02	320.57	5.45	0.10	4.82	0.09
70:31:00	323.87	320.00	3.87	0.07	2.67	0.05
72:31:00	323.71	320.15	3.56	0.07	2.51	0.05
74:31:00	324.03	320.62	3.42	0.07	2.83	0.05
76:31:00	323.68	320.74	2.95	0.06	2.49	0.05
78:31:00	323.61	321.04	2.57	0.05	2.41	0.05
80:31:00	323.34	321.19	2.16	0.04	2.15	0.04
82:31:00	322.11	320.88	1.23	0.02	0.91	0.02
84:31:00	321.73	321.04	0.70	0.01	0.54	0.01
86:31:00	322.76	322.29	0.47	0.01	1.56	0.03
88:31:00	322.73	321.96	0.77	0.01	1.53	0.03
90:31:00	324.27	322.87	1.41	0.03	3.07	0.06
92:31:00	324.67	323.12	1.55	0.03	3.47	0.07
94:31:00	324.41	323.55	0.86	0.02	3.21	0.06
96:31:00	324.93	323.61	1.33	0.03	3.73	0.07

Test Location (m)	**1+22.4**	**Effective Stress on date of test (kPa)**	**8.7**
Depth (m)	4.5	**Test # in well**	3
Well #	12	**Test Type**	Rate of Fall
Start Date of Test	3/11/2018	**Static Equilibrium Water Level, H_{wt} (cm)**	378.3
R_e (cm)	29.7	**Initial Slug Height, H_{S0} (cm)**	53.9
k_{adj} (cm/s)	3.40E-07	**k_{static} (cm/s)**	3.48E-07





1+22.4	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
0:00:00	431.89	378.30	53.59	1.00	53.59	1.00
0:01:00	431.65	378.30	53.35	1.00	53.35	1.00
0:02:00	431.38	378.30	53.08	0.99	53.08	0.99
0:03:00	431.19	378.30	52.89	0.99	52.89	0.99
0:04:00	430.92	378.30	52.62	0.98	52.62	0.98
0:05:00	430.70	378.30	52.40	0.98	52.40	0.98
0:06:00	430.53	378.30	52.23	0.97	52.23	0.97
0:07:00	430.31	378.30	52.01	0.97	52.01	0.97
0:08:00	430.09	378.30	51.79	0.97	51.79	0.97
0:11:00	429.55	378.30	51.25	0.96	51.25	0.96
0:14:00	428.96	378.30	50.66	0.95	50.66	0.95
0:17:00	428.46	378.30	50.16	0.94	50.16	0.94
0:20:00	428.01	378.30	49.71	0.93	49.71	0.93
0:23:00	427.51	378.30	49.21	0.92	49.21	0.92
0:26:00	427.10	378.30	48.80	0.91	48.80	0.91
0:29:00	426.72	378.30	48.42	0.90	48.42	0.90
0:32:00	426.31	378.30	48.00	0.90	48.00	0.90
0:35:00	425.96	378.30	47.66	0.89	47.66	0.89
0:38:00	425.66	378.30	47.36	0.88	47.36	0.88
0:41:00	425.33	378.30	47.02	0.88	47.02	0.88
0:44:00	424.99	378.30	46.69	0.87	46.69	0.87
0:47:00	424.73	378.30	46.43	0.87	46.43	0.87
0:50:00	424.45	378.30	46.15	0.86	46.15	0.86
0:53:00	424.14	378.30	45.84	0.86	45.84	0.86
0:56:00	423.88	378.30	45.57	0.85	45.57	0.85
0:59:00	423.62	378.21	45.42	0.85	45.32	0.85
1:02:00	423.38	378.21	45.17	0.84	45.08	0.84
1:05:00	423.21	378.21	45.00	0.84	44.91	0.84
1:08:00	423.00	378.21	44.80	0.84	44.70	0.83
1:11:00	422.71	378.21	44.51	0.83	44.41	0.83
1:14:00	422.47	378.21	44.26	0.83	44.17	0.82
1:17:00	422.26	378.21	44.06	0.82	43.96	0.82
1:20:00	422.03	378.21	43.83	0.82	43.73	0.82
1:23:00	421.84	378.21	43.63	0.81	43.54	0.81
1:26:00	421.61	378.21	43.40	0.81	43.31	0.81
1:29:00	421.46	378.21	43.25	0.81	43.16	0.81
1:32:00	421.26	378.21	43.06	0.80	42.96	0.80
1:35:00	421.08	378.21	42.87	0.80	42.78	0.80
1:38:00	420.87	378.21	42.66	0.80	42.57	0.79
1:43:00	420.57	378.21	42.37	0.79	42.27	0.79
1:48:00	420.23	378.21	42.02	0.78	41.92	0.78
1:53:00	419.98	378.21	41.78	0.78	41.68	0.78
1:58:00	419.72	378.21	41.51	0.77	41.42	0.77
2:03:00	419.42	378.16	41.26	0.77	41.12	0.77
2:08:00	419.12	378.16	40.96	0.76	40.82	0.76
2:13:00	418.79	378.16	40.63	0.76	40.49	0.76
2:18:00	418.49	378.16	40.33	0.75	40.19	0.75
2:23:00	418.30	378.16	40.14	0.75	40.00	0.75
2:28:00	418.18	378.16	40.02	0.75	39.88	0.74
2:33:00	417.99	378.16	39.83	0.74	39.69	0.74

1+22.4	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
2:38:00	417.82	378.16	39.66	0.74	39.52	0.74
2:43:00	417.60	378.16	39.44	0.74	39.30	0.73
2:48:00	417.34	378.16	39.18	0.73	39.04	0.73
2:53:00	417.10	378.16	38.94	0.73	38.79	0.72
2:58:00	416.97	378.16	38.81	0.72	38.67	0.72
3:03:00	416.88	378.21	38.66	0.72	38.58	0.72
3:08:00	416.67	378.21	38.46	0.72	38.37	0.72
3:13:00	416.58	378.21	38.37	0.72	38.28	0.71
3:18:00	416.47	378.21	38.26	0.71	38.17	0.71
3:23:00	416.34	378.21	38.12	0.71	38.03	0.71
3:28:00	416.19	378.21	37.97	0.71	37.88	0.71
3:33:00	416.05	378.21	37.84	0.71	37.75	0.70
3:38:00	415.87	378.21	37.66	0.70	37.57	0.70
3:48:00	415.43	378.21	37.21	0.69	37.13	0.69
3:58:00	415.24	378.21	37.03	0.69	36.94	0.69
4:08:00	413.80	377.27	36.52	0.68	35.50	0.66
4:18:00	413.31	377.27	36.04	0.67	35.01	0.65
4:28:00	412.94	377.27	35.67	0.67	34.64	0.65
4:38:00	412.74	377.27	35.46	0.66	34.44	0.64
4:48:00	412.43	377.27	35.15	0.66	34.13	0.64
4:58:00	412.28	377.27	35.00	0.65	33.98	0.63
5:08:00	412.19	377.36	34.83	0.65	33.88	0.63
5:18:00	411.92	377.36	34.56	0.64	33.62	0.63
5:28:00	411.61	377.36	34.25	0.64	33.31	0.62
5:38:00	411.25	377.36	33.90	0.63	32.95	0.61
5:48:00	410.95	377.36	33.60	0.63	32.65	0.61
5:58:00	410.73	377.36	33.38	0.62	32.43	0.61
6:08:00	409.42	376.34	33.08	0.62	31.11	0.58
6:18:00	408.99	376.34	32.65	0.61	30.69	0.57
6:28:00	408.69	376.34	32.36	0.60	30.39	0.57
6:38:00	408.43	376.34	32.09	0.60	30.13	0.56
6:48:00	408.28	376.34	31.94	0.60	29.98	0.56
6:58:00	408.18	376.34	31.85	0.59	29.88	0.56
7:08:00	407.94	376.33	31.61	0.59	29.64	0.55
7:18:00	407.70	376.33	31.37	0.59	29.40	0.55
7:28:00	407.54	376.33	31.21	0.58	29.24	0.55
7:38:00	407.33	376.33	31.01	0.58	29.03	0.54
8:08:00	406.24	376.18	30.06	0.56	27.94	0.52
8:38:00	405.43	376.18	29.25	0.55	27.13	0.51
9:08:00	405.71	376.95	28.75	0.54	27.40	0.51
9:38:00	404.94	376.95	27.98	0.52	26.63	0.50
10:08:00	403.59	376.38	27.21	0.51	25.29	0.47
10:38:00	402.42	376.38	26.04	0.49	24.11	0.45
11:08:00	402.85	376.81	26.03	0.49	24.55	0.46
11:38:00	402.32	376.81	25.50	0.48	24.02	0.45
12:08:00	402.73	377.45	25.28	0.47	24.43	0.46
12:38:00	402.34	377.45	24.89	0.46	24.04	0.45
13:08:00	401.83	377.16	24.67	0.46	23.53	0.44
13:38:00	401.07	377.16	23.91	0.45	22.77	0.42
14:08:00	400.72	376.84	23.88	0.45	22.41	0.42

1+22.4	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
14:38:00	400.31	376.84	23.48	0.44	22.01	0.41
15:08:00	399.92	376.67	23.25	0.43	21.62	0.40
15:38:00	399.44	376.67	22.77	0.42	21.14	0.39
16:08:00	398.78	376.39	22.40	0.42	20.48	0.38
16:38:00	397.85	376.39	21.46	0.40	19.55	0.36
17:08:00	397.09	375.85	21.25	0.40	18.79	0.35
17:38:00	396.44	375.85	20.59	0.38	18.13	0.34
18:08:00	396.91	376.37	20.54	0.38	18.61	0.35
18:38:00	396.27	376.37	19.90	0.37	17.97	0.34
19:08:00	396.58	376.83	19.75	0.37	18.27	0.34
19:38:00	395.94	376.83	19.11	0.36	17.64	0.33
20:38:00	394.56	376.22	18.34	0.34	16.26	0.30
21:38:00	394.78	376.71	18.06	0.34	16.48	0.31
22:38:00	395.00	377.30	17.70	0.33	16.70	0.31
23:38:00	394.20	377.02	17.18	0.32	15.90	0.30
24:38:00	393.29	376.61	16.68	0.31	14.99	0.28
25:38:00	393.83	377.30	16.53	0.31	15.52	0.29
26:38:00	393.35	377.11	16.24	0.30	15.05	0.28
27:38:00	392.81	376.94	15.88	0.30	14.51	0.27
28:38:00	392.00	376.71	15.28	0.29	13.70	0.26
29:38:00	391.08	376.39	14.68	0.27	12.77	0.24
30:38:00	390.11	375.99	14.12	0.26	11.81	0.22
31:38:00	390.20	376.56	13.64	0.25	11.90	0.22
33:38:00	389.50	376.61	12.89	0.24	11.20	0.21
35:38:00	389.40	376.93	12.46	0.23	11.10	0.21
37:38:00	389.13	376.70	12.43	0.23	10.83	0.20
39:38:00	388.55	375.96	12.59	0.23	10.25	0.19
41:38:00	386.22	374.90	11.32	0.21	7.92	0.15
43:38:00	386.28	375.46	10.82	0.20	7.98	0.15
45:38:00	385.23	375.12	10.11	0.19	6.93	0.13
47:38:00	385.29	375.89	9.40	0.18	6.99	0.13
49:38:00	385.09	375.93	9.16	0.17	6.78	0.13
51:38:00	383.50	375.31	8.19	0.15	5.20	0.10
53:38:00	383.33	376.34	6.99	0.13	5.03	0.09
55:38:00	382.29	376.18	6.11	0.11	3.99	0.07
57:38:00	382.22	376.86	5.36	0.10	3.92	0.07
59:38:00	381.73	377.24	4.49	0.08	3.43	0.06
61:38:00	380.84	376.64	4.21	0.08	2.54	0.05
63:38:00	381.38	377.18	4.21	0.08	3.08	0.06
65:38:00	380.84	376.70	4.14	0.08	2.54	0.05
67:38:00	380.96	377.14	3.82	0.07	2.66	0.05
69:38:00	380.73	377.34	3.40	0.06	2.43	0.05
71:38:00	380.08	376.70	3.37	0.06	1.77	0.03
73:38:00	380.97	376.67	4.30	0.08	2.67	0.05
75:38:00	380.04	375.21	4.83	0.09	1.74	0.03
77:38:00	379.09	374.56	4.53	0.08	0.79	0.01
79:38:00	378.48	374.54	3.94	0.07	0.18	0.00
81:38:00	377.71	374.27	3.44	0.06	-0.59	-0.01
83:38:00	377.11	374.59	2.52	0.05	-1.19	-0.02
85:38:00	377.73	375.01	2.71	0.05	-0.58	-0.01

1+22.4	4.5 m					Test #3
Elapsed Time (H:M:S)	H_p **(cm)**	H_{wt} **(cm)**	**Adjusted** H_{wt}		**Static** H_{wt}	
			H_S **(cm)**	H_S/H_{S0}	H_S **(cm)**	H_S/H_{S0}
87:38:00	376.93	374.57	2.36	0.04	-1.37	-0.03
89:38:00	375.92	373.90	2.02	0.04	-2.38	-0.04
91:38:00	376.87	375.02	1.85	0.03	-1.43	-0.03
93:38:00	376.05	374.58	1.47	0.03	-2.25	-0.04
95:38:00	376.44	374.39	2.05	0.04	-1.86	-0.03
97:38:00	377.42	374.22	3.20	0.06	-0.88	-0.02
99:38:00	376.03	372.73	3.30	0.06	-2.28	-0.04
101:38:00	374.86	372.04	2.82	0.05	-3.44	-0.06
103:38:00	374.58	372.00	2.58	0.05	-3.72	-0.07
105:38:00	374.16	371.85	2.31	0.04	-4.14	-0.08
107:38:00	374.17	371.81	2.36	0.04	-4.13	-0.08
109:38:00	374.54	371.44	3.11	0.06	-3.76	-0.07
111:38:00	373.50	369.76	3.74	0.07	-4.80	-0.09
113:38:00	372.14	368.68	3.46	0.06	-6.16	-0.12
115:38:00	371.36	368.36	3.00	0.06	-6.94	-0.13
117:38:00	370.34	368.47	1.86	0.03	-7.96	-0.15
119:38:00	370.37	368.48	1.89	0.04	-7.93	-0.15
121:38:00	370.01	367.91	2.10	0.04	-8.29	-0.15
123:38:00	368.68	366.77	1.91	0.04	-9.62	-0.18
125:38:00	367.71	366.38	1.33	0.02	-10.59	-0.20
127:38:00	367.04	366.36	0.69	0.01	-11.26	-0.21
129:38:00	366.54	366.38	0.16	0.00	-11.77	-0.22
131:38:00	364.81	365.84	-1.03	-0.02	-13.49	-0.25
133:38:00	365.59	366.48	-0.89	-0.02	-12.71	-0.24
135:38:00	364.04	365.97	-1.93	-0.04	-14.26	-0.27
137:38:00	364.55	367.08	-2.53	-0.05	-13.75	-0.26
139:38:00	364.90	367.96	-3.06	-0.06	-13.41	-0.25
141:38:00	364.15	367.80	-3.65	-0.07	-14.15	-0.26
143:38:00	365.81	369.38	-3.57	-0.07	-12.49	-0.23
145:38:00	367.00	369.70	-2.70	-0.05	-11.30	-0.21
147:38:00	367.57	368.74	-1.16	-0.02	-10.73	-0.20
149:38:00	366.75	367.33	-0.58	-0.01	-11.55	-0.22
151:38:00	365.86	366.48	-0.62	-0.01	-12.44	-0.23