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Sustainability Evaluation of Shallow Groundwater for Non-potable Use, GSU Downtown Campus, Atlanta, Georgia

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SUSTAINABILITY EVALUATION OF SHALLOW GROUNDWATER FOR NON-POTABLE USE, GSU DOWNTOWN CAMPUS, ATLANTA, GA.

by

FABIAN ZOWAM

Under the Direction of Brian Meyer, PhD

ABSTRACT

Increasing attention has been brought to the issue of sustainability of the freshwater sources for the Metro Atlanta due to rapid urban growth and the significant surge in freshwater demand. The utilization of shallow groundwater in downtown Atlanta will promote more sustainable use of water resources by decreasing reliance on water supplied by the City of Atlanta sourced from the Chattahoochee River.

This research evaluated the sustainability of shallow groundwater on the Georgia State University (GSU) downtown campus, explicitly for non-potable use, particularly landscape irrigation. Aquifer testing (slug tests and Specific Capacity testing) indicate flow rates of up to 2 gpm are attainable in the immediate area of the GSU monitoring well network and could provide a sustainable source of water for irrigation. Geophysical investigations also inform a shallow groundwater potential boundary demarcating the areas more suitable for shallow, sustainable wells from those less so.

INDEX WORDS: Groundwater, Non-potable use, Sustainability.

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DEDICATION

This work is an attempt to inform the City of Atlanta of an alternative source of freshwater and the plausibility of using water from the urban aquifer system to meet the non-drinking needs of the City. I, thus, dedicate the vigorous and determined efforts herein to the beautiful people of Atlanta - the foremost beneficiaries of this research.

ACKNOWLEDGEMENTS

Geoscience graduate students at GSU are blessed with awe-inspiring faculty and an enabling environment for breathtaking research. I am glad I leveraged these resources towards the completion of this thesis. Dr. Meyer was terrific. I enjoyed working under his supervision and could not have wished for a better advisor/supervisor. Dr. Pangle's groundwater hydrology course prepared me for this work, and I would never have asked for that course to be taught by a different person. Dr. Adams' nurtured passion for global water security was a major source of inspiration that cannot go unmentioned.

Above all, my highest gratitude goes to God. I am nothing but pencil in His hands.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

Metro Atlanta has a population of over 5.7 million (Atlanta Regional Commission, 2018), which according to the US Census Bureau (2018), is more than the population of the States of North and South Dakota, Montana, Delaware, Alaska, and Wyoming combined. On its effect on water consumption, the Tri-State water wars among Georgia, Alabama, and Florida (Atlanta Regional Commission, 2013) is still an ongoing consequence. The States of Florida and Alabama have been litigating against Georgia for decades over how much water is consumed by the metro Atlanta area, from a river system that they all share (Atlanta Regional Commission, 2013; Smith, 2016). The Atlanta Regional Commission, in its thirty-five-year population forecast of the metro Atlanta from 2015 to 2050 (Figure 1.1), validates the concerns.

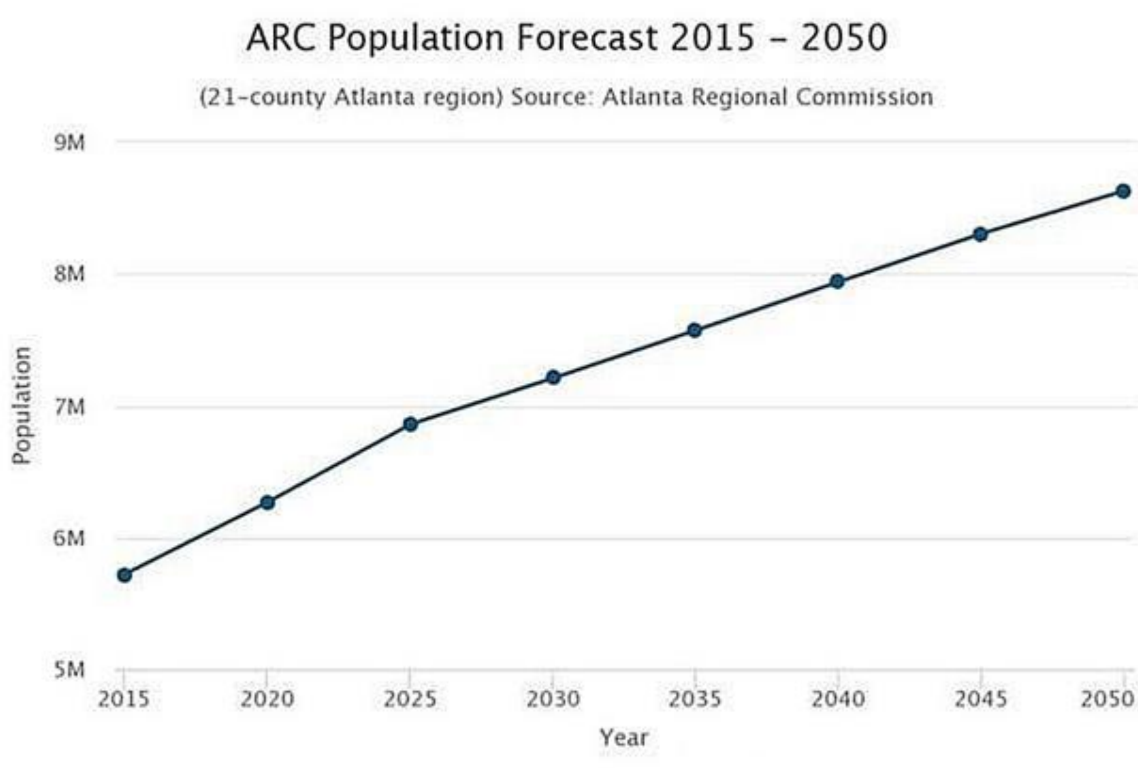

Figure 1.1 Population forecast of metro Atlanta, 2015 - 2050. Source: ARC

From the above projection, the population will increase steadily until 2050, putting more pressure on the water supply to the region. This research proposes a solution to the potential supply limitations, using the downtown Atlanta area as a representative sample for the much larger metro Atlanta region.

Millions of gallons of water are extracted daily from the Chattahoochee River to meet the water demands of the metro Atlanta area, which includes daily drinking water supply to over five million people, as well as non-potable needs. However, reliance on surface water alone is not the best sustainable practice as groundwater, when combined with surface water, makes the fluctuations in water supply less severe (Tsur, 1990). This research considers that channeling the supply from the Chattahoochee River to drinking purposes and utilizing groundwater for non-potable use could be more sustainable management of the city's water resources. This consideration shows a promise not to compromise the ability of future generations to also benefit from these resources.

For potential groundwater evaluation of the study area, hydraulic properties of the urban aquifer system will be evaluated. The parameters include Hydraulic Conductivity (K), flow rate (Q), drawdown (d), and specific capacity (SC). A determination of the sustainability of well yields would be based on the values of those parameters estimated versus the (verified) non-potable needs of the area.

1.1 Significance of the study

The utilization of shallow groundwater will also promote the sustainable use of water resources by decreasing reliance on water supplied by the City of Atlanta's Department of Watershed Management that is sourced from the Chattahoochee River.

1.2 Research Questions

This research will aim to decrease reliance on the city's current water sources by evaluating an alternative source of water. The project will answer research questions (1) *Does the availability of shallow groundwater meet non-potable needs at the GSU downtown campus?* Potential non-potable water uses include landscape irrigation and "make-up" water for Heating, Ventilation, and Air Conditioning (HVAC) systems. This project evaluates the availability of shallow groundwater explicitly to meet irrigation needs. Therefore, (2) *How many wells at our established sustained flow rates would be needed to irrigate the study area acreage?*

1.3 A Case for Groundwater

Because of increasing population and industrialization, surface waters alone may not be dependable throughout the year; thus, ushering in need to look for supplementary sources of water (Abdullahi et al. 2014; Alisiobi and Ako 2012). Being the most extensive available source of quality freshwater (Ariyo and Banjo, 2008), groundwater constitutes over 90% of the world's readily available sources of freshwater on the earth, while the waters in rivers, lakes, reservoirs, and wetlands make up the remaining 10% (Boswinkel, 2000; Prieto, 2015). Also, by providing water to rivers, lakes, ponds, and wetlands to sustain dependent ecosystems and maintain water levels, groundwater has become a vital component of the global water cycle and the environment (Prieto, 2015).

Groundwater is the water occurring in the subsurface within the zone of saturation, and unlike soil water, this zone is waterlogged with all the pore spaces filled with water. It is widely used for domestic, industrial, and agricultural activities, and shallow groundwater specifically is the most practical and efficient water supply for irrigation (Barrow, 2016).

Groundwater can only be found within a few kilometers of the earth's surface. This depth constraint exists because the porosity and permeability of the earth's materials reduce with increasing depth below the land surface. Observations show that groundwater recharges through precipitation in the forms of rain, snow, sleet, and hail. Figures 1.2 and 1.3 are illustrations of the groundwater recharge process. A unit of rock that readily yields a substantial quantity of water to wells and springs is referred to as an aquifer. Two rock properties all aquifers must possess are porosity and permeability. While porosity refers to the relative volume of void or pore spaces in rocks and soils, permeability represents the readiness with which the pore spaces transmit fluid, which is controlled by the distribution of their sizes, geometries, and connectivity. The rocks and soils must first have pore spaces to hold liquid, and then, the connectivity of the pores to enable the flow of the contained fluid. Groundwater is often withdrawn for use by constructing and operating extraction wells (Figure 1.3).

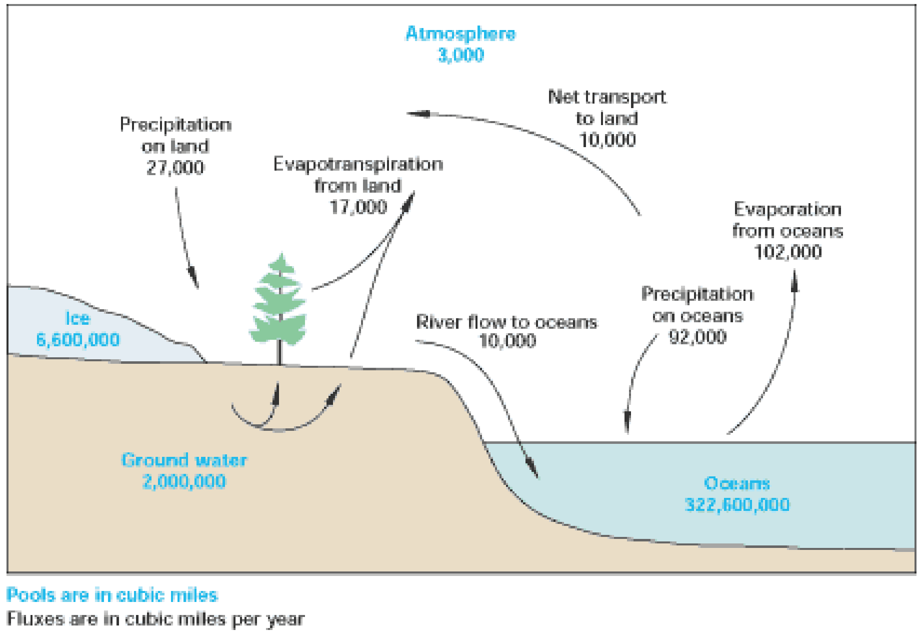

Figure 1.2 The hydrologic cycle (Winter et al.,1998)

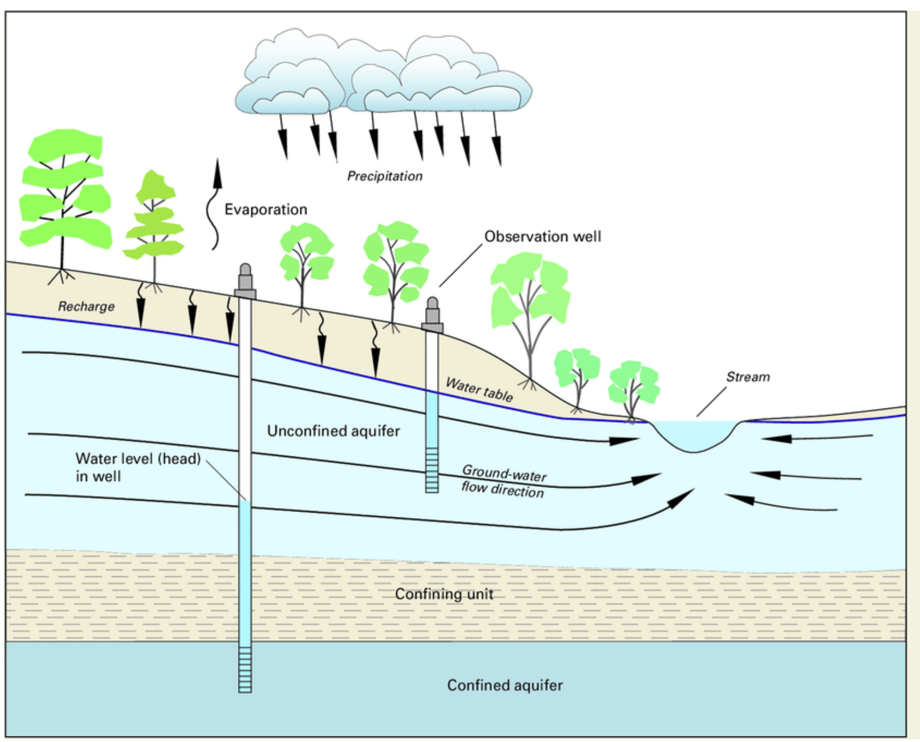

Figure 1.3 Extraction wells are drilled into the aquifers to withdraw groundwater (Taylor and Alley, 2002)

2 PROJECT RATIONALE INCORPORATING LITERATURE REVIEW

2.1 Description and geology of the study area

The study area falls within the Piedmont geographic region of the state of Georgia. The Piedmont region is one of the five provinces that make up the state and is the second largest (Figure 2.1 a). The geology of the Piedmont is mostly solid bedrock fractured in place at the top and overlain by a layer of regolith towards the land surface. (Figure 2.1 b)

Because the rocks that make up the Piedmont area are primarily crystalline, groundwater occurrence is restricted to fractures and joints, and other openings along structural planes (Cressler et al., 1982; Herrick and LeGrand, 1949). Another factor determining the occurrence of groundwater in the area is topography (Cressler et al., 1982; Herrick and LeGrand, 1949). Lowlands are better prospects than uplands as erosion and transport contribute to regolith thickening in low lying depositional areas.

Cressler et al. (1982) assessed the amount of groundwater available in the Greater Atlanta Region (GAR) – investigating the water-bearing openings within the crystalline rocks using geophysical borehole logs. The study confirmed the availability of substantial amounts of groundwater in many areas supplying up to 100 gal/min from high yielding fracture networks.

But in addition to the crystalline-rock aquifers of the Piedmont area, groundwater also occurs in the regolith overlying the fractured bedrocks (Clarke and Peck, 1991), and saprolites constitute the thickest and most significant component of this regolith (Miller, 1990). Saprolites are rocks formed from thorough and in situ chemical weathering of pre-existing rocks and contain enormous amounts of clays. These clays are rich in iron oxides giving them a reddish appearance. The state of Georgia is well known for its abundance of red clays (Watson, 2009), and the Piedmont region contributes mainly to this abundance.

It is relatively inexpensive to drill through saprolites compared to crystalline bedrock. Also, most groundwater storage is in the saprolite and soil (Figure 2.1 b). Therefore, this study investigates the potential utilization of shallow groundwater within the saprolite underlying the GSU downtown Atlanta campus, which is located within the Piedmont province of Georgia.

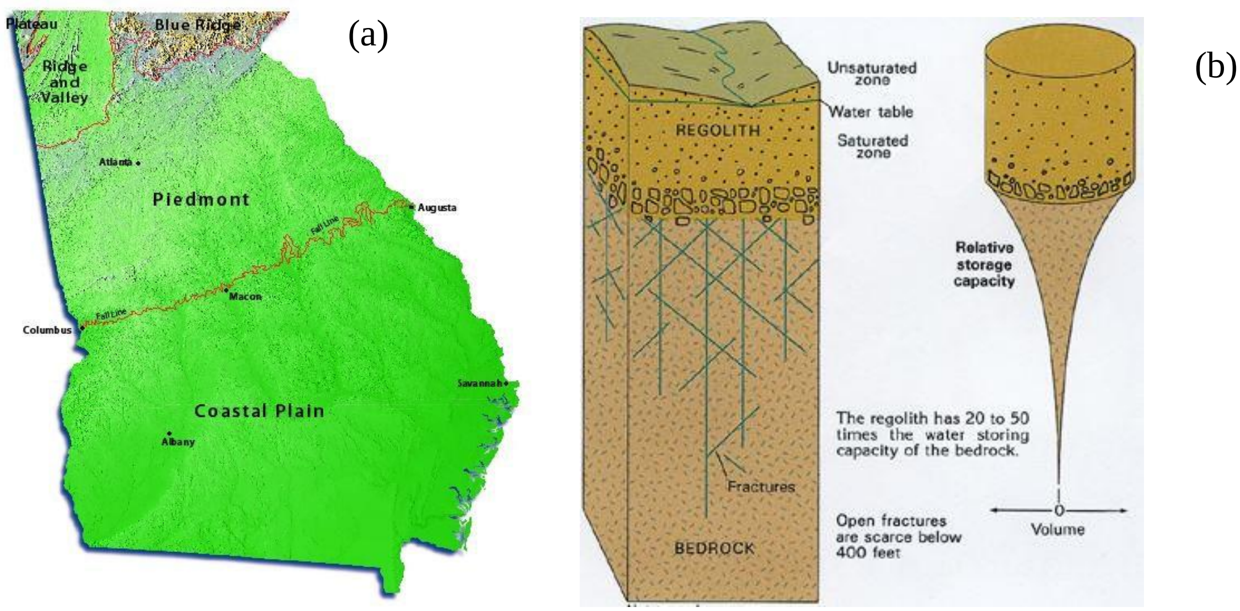

Figure 2.1 (a) Map showing the location of the study area (Atlanta) in its geographical region. (b) The geology and relative water storage capacities of the Georgia Piedmont formations. Source: USGS Groundwater ATLAS of the United States

2.1.1 Drilling and installation of groundwater monitoring wells on the GSU downtown campus.

The drilling aspect of the project was carried out on the GSU downtown campus using the hollow stem auger method – an ideal method for advancing shallow boreholes in soils and unconsolidated formations. Four shallow groundwater monitoring wells were to be installed, interfaced with the GSU weather station, and used to evaluate the sustainability of shallow groundwater on the GSU campus for non-potable use. At the first two well sites (SB01 and SB02), the drill bits (attached to the hollow stem) failed to advance past competent rocks a few feet below land surface (BLS) but successfully drilled boreholes 37 feet BLS at the last two locations (MW01 and MW02). SB01 was at an active and leased parking lot by Auburn Avenue, beside A Deck, and SB02 was at the grassed area by the asphalt paving behind the GSU Law building. Both MW01 and MW02 were located at 100 Auburn and very close proximity (about 60 feet apart).

Prompted by the apparent varying thickness of the regolith underlying the study area and the effects on shallow groundwater availability, a non-destructive geophysical investigation was carried out to delineate the regolith/bedrock transition across the area. This would lay out a potential groundwater boundary demarcating area likely suitable for shallow wells from those that are not. The demarcation thereof would guide the future locations of shallow wells in the area. The non-destructive investigation involved the use of the Ground Penetrating Radar (GPR) technique and imaged the subsurface adequately.

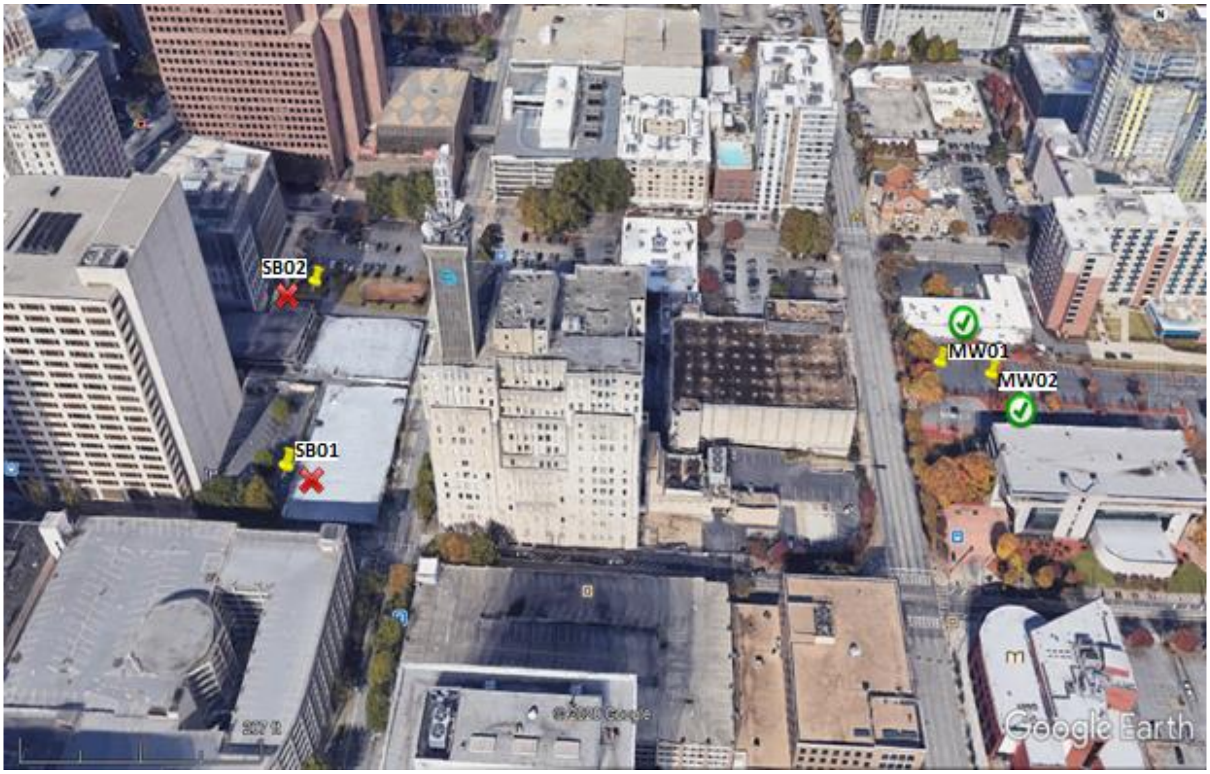

Figure 2.2 Borehole drilling locations showing both successful and failed attempts

Figure 2.3 At the SB02 location, the drilling operation was unsuccessful

2.2 Groundwater utilization for irrigation

Several works have accessed the viability of groundwater utilization for irrigation practices, and at various scales. For example, according to Barry et al. (2010), the drought-induced food insecurity in northern Ghana in the 1980s forced local farmers to develop irrigation systems that extracted shallow groundwater from the lowlands in the Atankwidi catchment of the White Volta Basin. The authors evaluated the sustainability of the shallow groundwater supply by comparing estimates of total volume that can be stored annually by the aquifer to the annual estimates of the volume extracted for agricultural use. The total yearly storage, by far, exceeded total extractions, and water quality also satisfied both drinking and non-drinking requirements. Interestingly, the study area geology was like the Georgia Piedmont, with relatively shallow saprolite layer underlain by weathered bedrock, which is in turn underlain by solid bedrock at the base. Groundwater was extracted from the saprolite layer, 2.6 to 13.7 meters deep.

In a global inventory of the groundwater use for irrigation, Siebert et al. (2010) report that, of the total global area equipped to supply water for irrigation (300 million ha), 38% is equipped with groundwater. According to the authors, the United States alone has about 16.6 million ha acreage equipped to supply groundwater to its irrigable landscape, and only China and India have more – 18.8 and 39.4 million hectares, respectively. National Groundwater Association (2016) reports similar patterns in global groundwater extraction. The United States withdraws about 111.70 km^3/year, again, only less than China and India – 111.95 km^3/year and 251.0 km^3/year, respectively.

National Groundwater Association (2016) also reports that most of the groundwater extracted in the United States is used for irrigation. In numbers, it is 69.5% of withdrawals to irrigation, and the remaining 30.5% shared among public and household use, livestock farming, industrial, mining, and thermoelectric water uses.

2.2.1 Urban aquifer systems and the feasibility of adequate groundwater recharge

This research investigates the plausibility of using water from an unconfined aquifer system in a heavily urbanized area (Figure 2.2), for gray purposes. The rate of direct aquifer recharge depends on the infiltration capabilities of the land surface, and percolation through unpaved surfaces is undoubtedly higher than its paved counterpart. However, Howard (2007) warns that impervious surfaces (such as asphalt and bricks) may be more permeable than often reported, and Lerner (2002) earlier determined that roughly 50% of all impervious surfaces are permeable. Perhaps, it is too early to write off the feasibility of considerable amounts of aquifer recharge nested in the sustainability evaluations carried out in this study.

The City of Atlanta extracts raw water from the Chattahoochee River in pipes up to 72-inch diameter and sends it to potable treatment plants. From the plants, treated water is carried in transmission mains (at least 16-inch diameter), that run into the city supply area and feed the distribution mains. The distribution mains (3 – 12-inch diameter pipes) distribute potable water throughout the city until tapped off by service laterals that now supply water to the end-users (households, properties, and facilities). Typically, the service laterals are smaller in diameter than the distribution mains they are connected to. Up to 2-inch diameter pipes are used to supply water to individual households, but commercial supplies may use up to 8-inch pipes. Fire hydrants are seemingly everywhere in the City, and their service laterals tapping from distribution mains are typically 6-inch diameter pipes. The dimensions of the laterals usually depend on water demand. The Georgia Aquarium, for example, uses a 12-inch service lateral to tap potable water from a 12-inch distribution main. This is, however, the typical structure of potable water distribution in the City of Atlanta. But given the intricately urbanized setting of the study area (downtown Atlanta), it is expected to have a lot more robust main network in place. The high frequency of main breaks in the metro Atlanta area (Tinker et al. 2009) possibly guarantees a potential source of indirect recharge into the urban aquifer system.

Lerner et al. (1993) report that leaking water mains underlying the Coventry region of the United Kingdom, provide substantial amounts of groundwater recharge for the urbanized aquifer system, and make up for the reduced infiltration through impervious surfaces. Yang et al. (1999), in their study to quantify groundwater recharge in the City of Nottingham, UK, also report significant contributions of main breaks, but additionally, ascertain that main leaks are the principal source of recharge for the sandstone aquifer system underlying the City.

In the water distribution network of Atlanta, flow through potable water mains are pressure-driven, and except for force mains, flow through wastewater (sewer) mains are not. It is, therefore, safe to assume that potable water mains would break more (especially as they get older) and contribute more to indirect aquifer recharge. As both water and sewer mains are liable to rupture, urban aquifers may not be realistic drinking water supplies but could be utilized sustainably for many other purposes.

And while there is potential for urban aquifers to be significantly and sustainably utilized for non-potable supply, there is a lack of information available about just how productive these aquifers may be. This study, therefore, demonstrates how aquifer testing methods and hypothetical irrigation demand calculations could be used in combination to evaluate the sustainable utility of an urban aquifer.

2.3 Aquifer testing in unconfined/shallow aquifers

Aquifer testing is the collective term for the controlled field experiments used to estimate the hydraulic properties of an aquifer and evaluate well performance. Two fundamental aquifer testing methods are slug tests and pump tests. **Slug testing** is a kind of aquifer test where the water level is rapidly changed by dropping or removing a weighted object into a groundwater well, and the water level falls or rises respectively back to its original static position. This response is monitored through time. Hydraulic head within an aquifer under approximately static conditions is the liquid surface elevation from an established datum, expressed in units of length. A **pumping test** is a field experiment in which a well is pumped at a controlled rate, and the drawdown is measured in one or more observation wells and optionally in the pumped well itself (Duffield, 2007).

In a recent study, Ismael (2016) evaluated hydraulic conductivities of shallow unconfined aquifers using various common slug testing methods. Data analysis was performed using the AQTESOLV software. The study examined the effects of using slugs of different volumes for slug tests. While the study recognized that aquifer testing could be carried out by various conventional methods, it acknowledges that slug testing is one of the most effective and useful approaches for in situ examination of hydraulic conductivity in unconfined aquifers. The author showed that the magnitude of the initial volume of water displaced does not have significant effects on hydraulic conductivity estimates, contrary to the work of Alfaifi (2015) that showed a positive correlation.

Pumping tests give values for the Transmissivity (T) of an aquifer, from which hydraulic conductivity (K) can be calculated by simply dividing by the aquifer thickness. The appropriate aquifer thickness to use becomes an issue, considering that not all wells are not fully penetrating. To tackle this, Ismael (2016), recommends that practical comparison between slug tests and pumping tests should be made with wells that are fully penetrating so that calculations of hydraulic conductivity from Transmissivity could be much less complicated.

A mathematical procedure was presented by Bouwer and Rice (1976) that estimates the hydraulic conductivity of an aquifer from monitoring the change in the hydraulic head during slug tests. This procedure relies on a mathematical representation which is based on the assumptions that: (1) Drawdown of the water table is negligible; (2) Flow above water table can be disregarded; (3) The aquifer is homogeneous and isotropic and; (4) Head losses as water enters the well are insignificant. The slug test method was initially developed for unconfined aquifers until Bouwer (1989) confirmed its application and usage on confined aquifers as well.

The screen (water intake portion) of the wells drilled for this research did not fully penetrate the thickness of the urban aquifer. Therefore, while slug tests would be conducted as detailed by Ismael (2016), the Bouwer and Rice (1976) method, which works for both fully and partially penetrating wells, would be used to analyze the hydraulic head responses from the tests for estimation of the hydraulic conductivity of the aquifer. Pumping tests would also be conducted to monitor drawdown, measure flow rate, and estimate the specific capacity of the wells.

Hydraulic conductivity is a principal aquifer hydraulic parameter that can govern our judgments as to whether an aquifer can be productive. The hydraulic conductivity of a formation is a measure of its ability to transmit a fluid (Dielman, 2015). Transmissivity, just as hydraulic conductivity, describes the ease with which fluid flows through geologic media, but unlike hydraulic conductivity, it considers the thickness of the saturated aquifer. The flow rate is the rate at which water can be extracted from a well, and the specific capacity is the recovery strength of the well that describes the rate at which water flows back into the wellbore as water is being pumped out. Both flow rate and specific capacity are indicators of the reliability of groundwater wells, and the inadequacy of these parameters may result in substantial restraints in groundwater exploitation and utilization.

3 METHODS

A large part of the study involves the slug testing of the wells to estimate the hydraulic conductivity of the aquifer and pumping tests for the flow rate, drawdown, and specific capacity of the well. The slug testing solution proposed by Bouwer and Rice (1976) is used for this study, and the response data analyzed using the AQTESOLV software – a program used for the interpretation of the results of aquifer tests.

Specific capacity testing of the wells was also performed to estimate potential yields by monitoring drawdown and measuring flow rates to evaluate well response to pumping. The specific capacity (gpm/ft) is simply the flow rate in gallons per minute divided by the drawdown in feet.

To evaluate the non-potable water needs of the study area, a remote sensing approach would be used to estimate the total landscape area needing irrigation. At the same time, field verification of the make-up water needs for HVAC systems was carried out.

Finally, to understand the nature of subsurface materials and better inform future drilling operations in the study area, geophysical investigations using the GPR technology followed through. The results of the non-destructive investigations disclosed a novel potential groundwater boundary in the area.

3.1 Slug Testing – Falling and Rising Head Tests

If a slug (an object with known volume) is dropped into a well, the water level in the well is displaced instantaneously above the initial water table. It then starts to fall back slowly to the original static level (Falling-head test). Similarly, if a slug is removed from a well, the water level in the well is rapidly lowered and subsequently rises to the original static or equilibrium level (Rising-head test). The measurement of the rate at which the water level falls (falling head test) and rises (rising head test) towards the initial water table surface is used to estimate the hydraulic conductivity of the aquifer material, in dimensions of length per time (LT^{-1}).

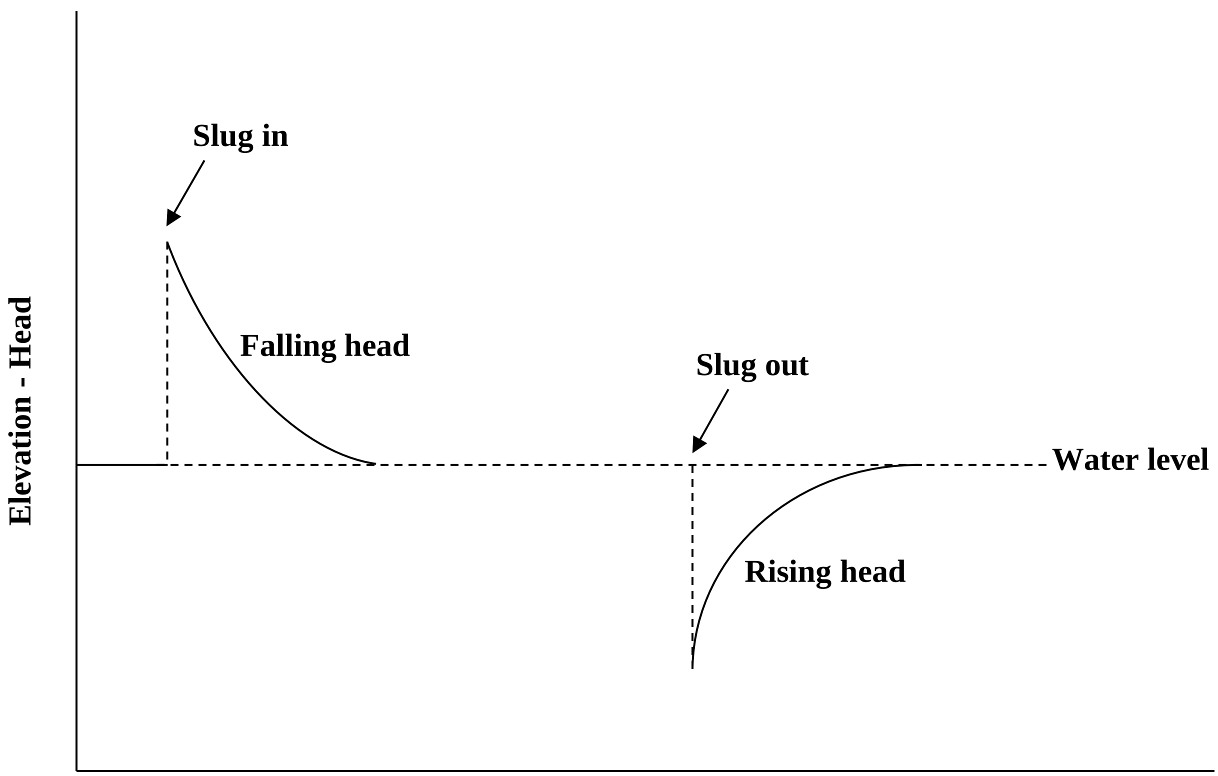

Figure 3.1 Slug testing to estimate hydraulic conductivity. The water level must reach equilibrium before slug is removed.

For the slug tests, two slugs of different volumes were used – one 18 inches and the other 24 inches of initial displacement (for two-inch diameter wells). The hydraulic head responses (rising and falling heads) were measured using sensitive pressure transducers combined with level dataloggers, providing accurate measurements of water levels in the wells (with temperature compensations) every second. The sensor was placed in the well before the slug was inserted in order to record static water level, and deep enough to avoid contact with the slug. The Solinst product used infra-red data transfer technology powered by long-lasting lithium batteries that could store up to 120,000 data points.

3.1.1 Bouwer and Rice (1976) method to analyze slug tests in unconfined aquifers

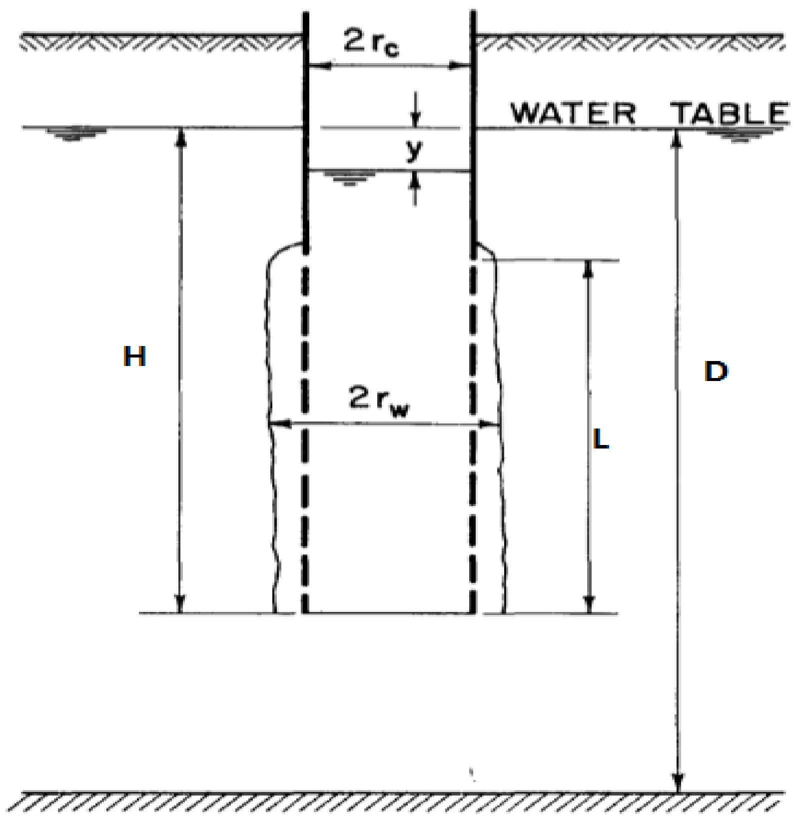

Figure 3.2 Geometry and symbols of a well in an unconfined aquifer

If a slug in dropped inside (or removed from) a well casing, the initial displacement is represented as **y**. Flow into this well at the value of y can also be calculated by modifying the Theim's solution for steady flow to a confined aquifer during pumping, as shown below:

$$Q = 2\pi K L \frac{y}{\ln (R_e / r_w)} \qquad (1)$$

Where **Q** is the flow into, or out of, the well (L^3T^{-1}); **K** is the hydraulic conductivity (LT^{-1}); **L** is the effective length of the screened portion of the well (L); $\mathbf{R_e}$ is the effective radius over which y is dispelled (L) and; $\mathbf{r_w}$ is the effective radius of the borehole (L).

The rate at which the water level in the well rises or falls (dy/dt) is related to the flow into the well Q by the equation:

$$dy/dt = - Q / \pi r_c^2 \qquad (2)$$

Where $\boldsymbol{\pi} \mathbf{r_c^2}$ is the cross-sectional area of the well over which the flow occurs.

Combining equations 1 and 2,

$$\frac{dy}{y} = \frac{- 2 K L dt}{r_c^2 \ln (R_e / r_w)} \qquad (3)$$

Equation 3 is modified by integration where y (t = 0) = y_0, and we get:

$$\ln y_0 - \ln y(t) = - \frac{2 K L t}{r_c^2 \ln (R_e / r_w)} \qquad (4)$$

Solving equation (4) for K, we get:

$$K = \frac{r_c^2 \ln (R_e / r_w) \ln (y_0 / y)}{2 L t} \qquad (5)$$

From the equation for hydraulic conductivity (K) above, we can calculate values for transmissivity by simply multiplying equation 5 by the aquifer thickness D, and we get:

$$T = \frac{D\, r_c^2 \ln (R_e / r_w)}{2L} \frac{1}{t} \ln \frac{y_0}{y_t} \qquad (6)$$

However, equation 6 assumes that the geometry of the aquifer is not changing with depth.

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3.2 Pumping Tests and Specific Capacity Testing - Estimation of the Flow Rate and the Potential Yield of the Well

Using a pump, groundwater was extracted from the well at a constant rate, and the measured time series of hydraulic head change in the pumping well was downloaded to a computer device (laptop). Two different sized 12v DC water pumps were used for the test– a mini purger (Whale Inc., Model WP4012) and a mega purger (Whale Inc., Model WP9012).

Table 3.1 Summary of pump specifications

		Output performance (gallons per minute) at Head (ft)								
MODEL	**Current Draw**	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**
WP4012 (Mini Purger)	2.0 – 3.5 Amp	3.2	2.0	1.0	0.1					
WP9012 (Mega Purger)	5.1 – 8.0 Amp	3.5	3.1	2.6	2.2	1.7	1.4	0.9	0.6	0.2

Figure 3.3 Pumping test (MW-01). The pumps were powered by (and connected to) the truck battery. The red piece of equipment is the water level indicator that was used to monitor drawdown and establish equilibrium conditions manually.

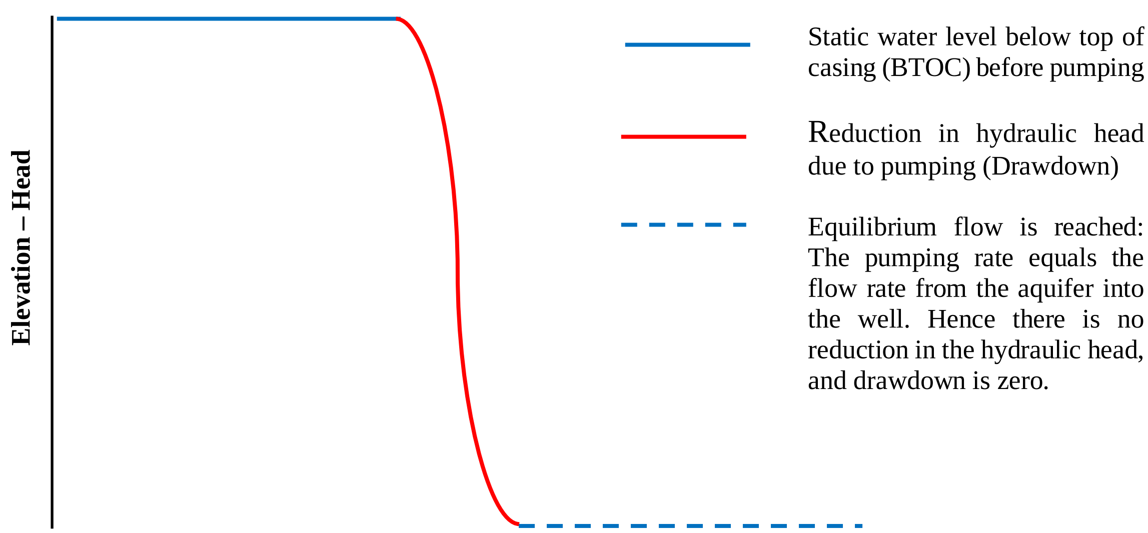


Figure 3.4 Anticipated pumping test response (MW-01)

While pumping tests were ongoing, the flow rate was repeatedly measured by filling up an empty one-gallon container and monitoring the time it took with a stopwatch. The time per gallon recording was converted to the conventional units of gallons per minute for the volumetric flow of water out of a well. With the bigger pump, a much higher flow rate (and drawdown) was expected.

3.3 Verification of Irrigation Needs of the Study Area

Following the successful evaluations of the sustained flow rate from MW-01, a satellite image of the study area (GSU downtown Atlanta campus) was downloaded from the United States Geological Survey (USGS) EarthExplorer data application for analysis and interpretation.

Table 3.2. Attributes of the satellite image data

Acquisition Date	Path/Row	Sensor	Spatial Resolution (m)	No. of bands*†	Sun Elevation	Sun azimuth
September 25, 2019	19/37	OLI8	30	9	51	148

† Panchromatic band not used
* Thermal bands were excluded

Using remote sensing techniques, the unsupervised image classification was performed to evaluate the total lawn area (grassland) maintained and managed by Georgia State University, as well as other land cover classes. This involved instructing the computer to group pixels with similar spectral characteristics into unique clusters according to some statistically determined criteria. Similar spectral classes were combined into information (land cover) classes.

3.4 Shallow Groundwater Availability Evaluation (Evidence from GPR Profiling)

The subsurface (around the monitoring wells) was imaged using the Ground Penetrating Radar (GPR) technology that generated below-ground profiles of geology materials by transmitting radio waves in the subsurface and recording reflected signals. Two different antennas (with different frequencies) were used for the profiling – 160 and 450 MHz at specific velocities in feet per microseconds. While increasing the velocity would increase penetration depth, the velocity was still a function of the nature of materials penetrated. From the profiles generated and the nature of hyperbola, velocities in the unsaturated zone were much higher than in the saturated zone. The 450 MHz antennae transmitted short electromagnetic waves that helped to view the unsaturated zone and compare it with the core logging of the borehole. The 160 MHz antennae radiated long EM waves that reached bedrock.

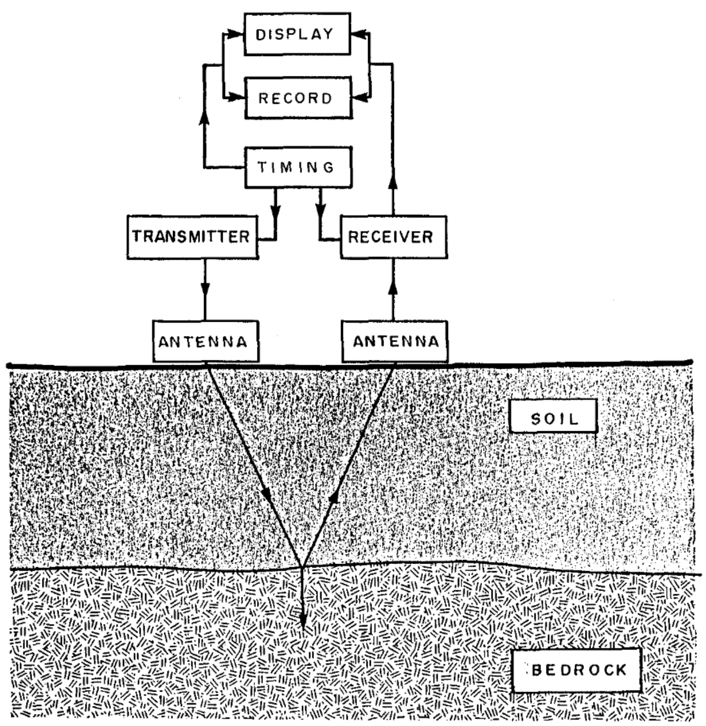


Figure 3.5 Components of the GPR Process (after Davis et al., 1989).

This research, and the research of (Waguespack, 2019) on the characterization of the water quality in the study area, are the parts of a composite project that assesses the **quality** and **availability** of shallow groundwater for non-potable use in the downtown Atlanta area. On account of that, the results of the GPR profiling have already been published (Waguespack, 2019). They would be referenced in the later parts of this study for a determination of the potential for groundwater availability in the area.

Figure 3.6 L -R: Jude Waguespack and Fabian Zowam at one of the well locations.

4 RESULTS

4.1 Slug Test

Results for the falling head and rising head tests were used for both slug test runs using the larger (2.0 feet displacement) and smaller (1.5 feet displacement) slugs. The raw data plot from the smaller slug test follows.

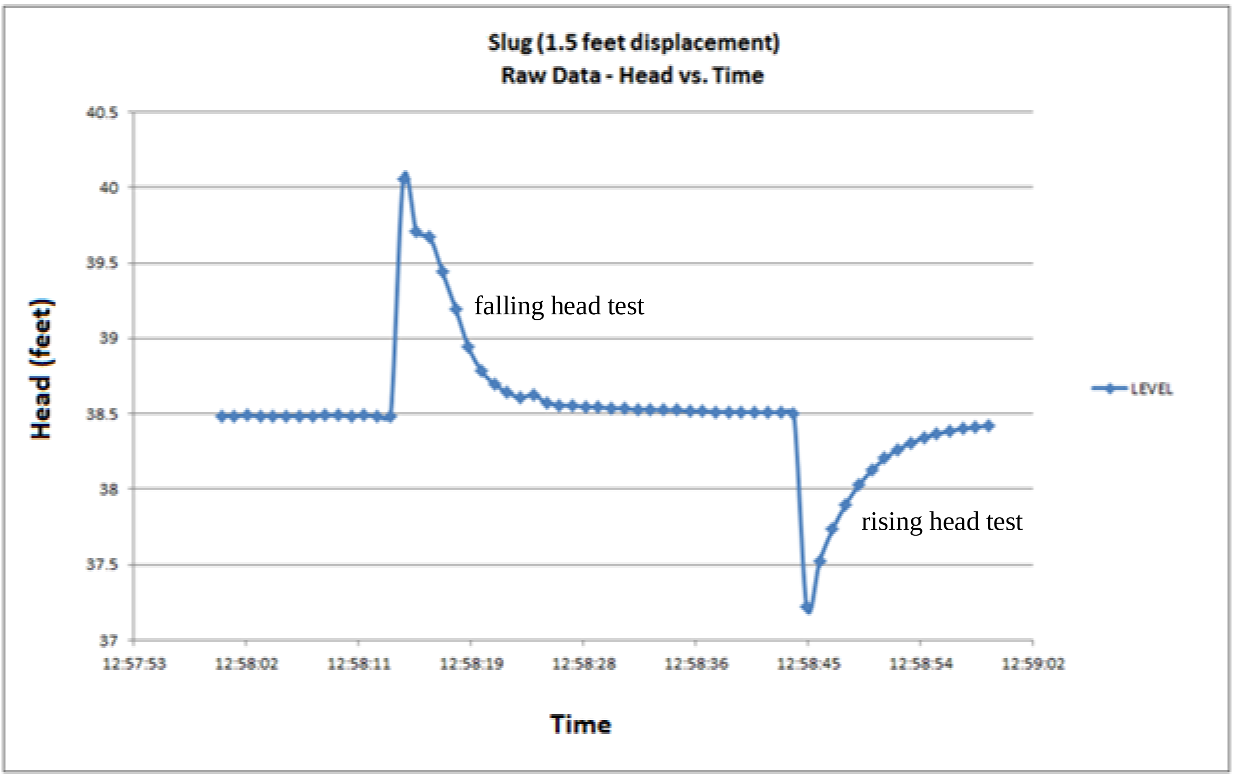


Figure 4.1 Raw data plot from the larger slug test at MW- 01

The following plots represent head versus time in the falling head and rising head slug tests using both the smaller and larger slugs. K values for the rising head slug tests ranged from 5.3 x 10^{-3} cm/sec to 4.9 x 10^{-3} cm/sec or a mean value of 5.1 x 10^{-3} cm/sec. K values for the falling head slug tests were 5.1 x 10^{-3} cm/sec for both the large and small slug displacement tests.

The recommended head range, shown as dotted lines, was used to guide the fitting of straight lines through the concave upward data (head) points shown below. The best fit line (solid line) gives off the hydraulic conductivity values as guided for accuracy by the recommended head range. The analysis was done using the AQTESOLV software, and K values were generated by fitting the best lines to the Bouwer and Rice (1976) straight-line solution, to the specific normalized head range of 0.20 to 0.30 as recommended by (Butler, 1998).

The concave upward nature of the normalized head points reflects a relatively slow water level response during slug tests and comparatively slow head movements to original static conditions. The plots, therefore, hint of a low to moderately permeable aquifer material.

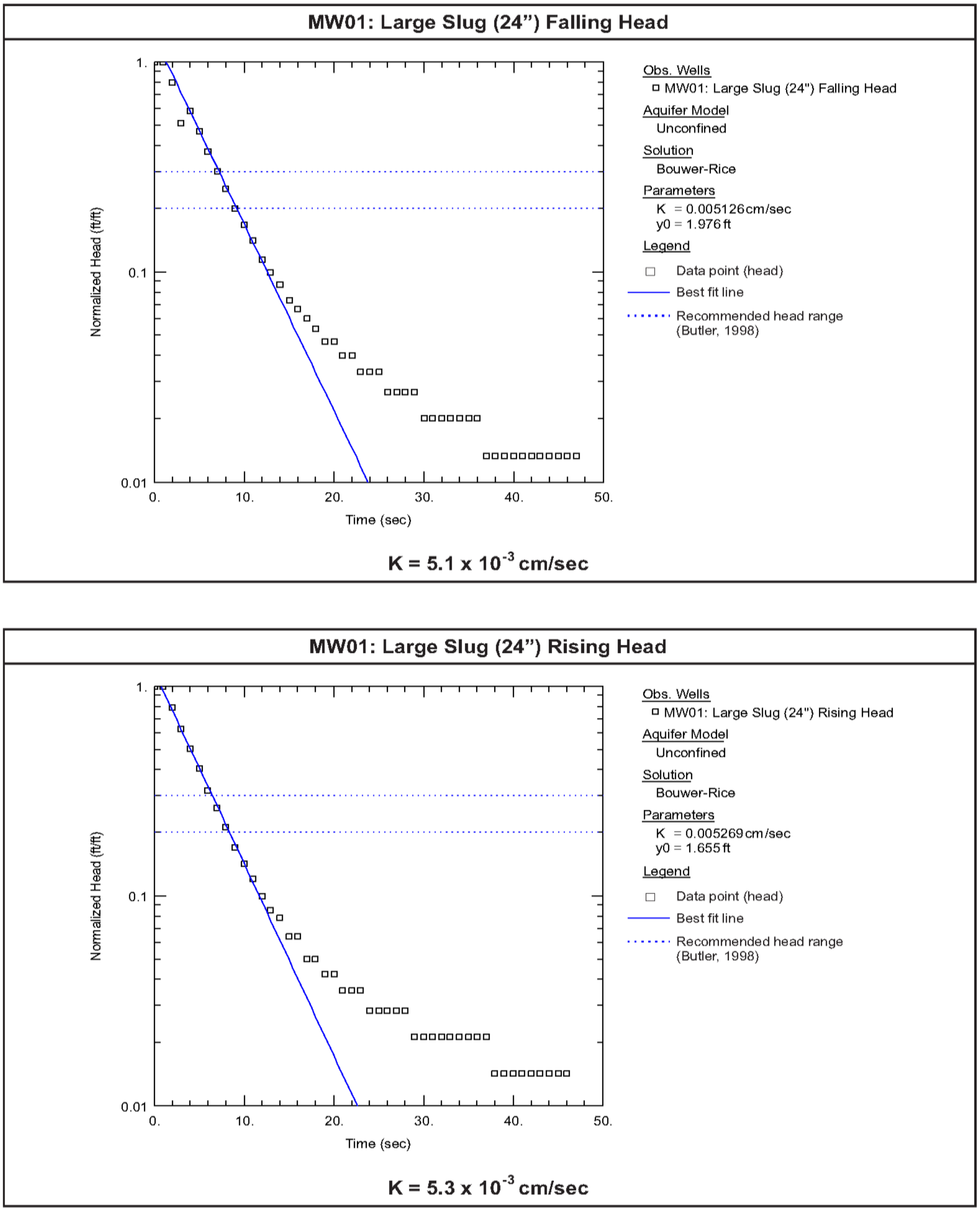
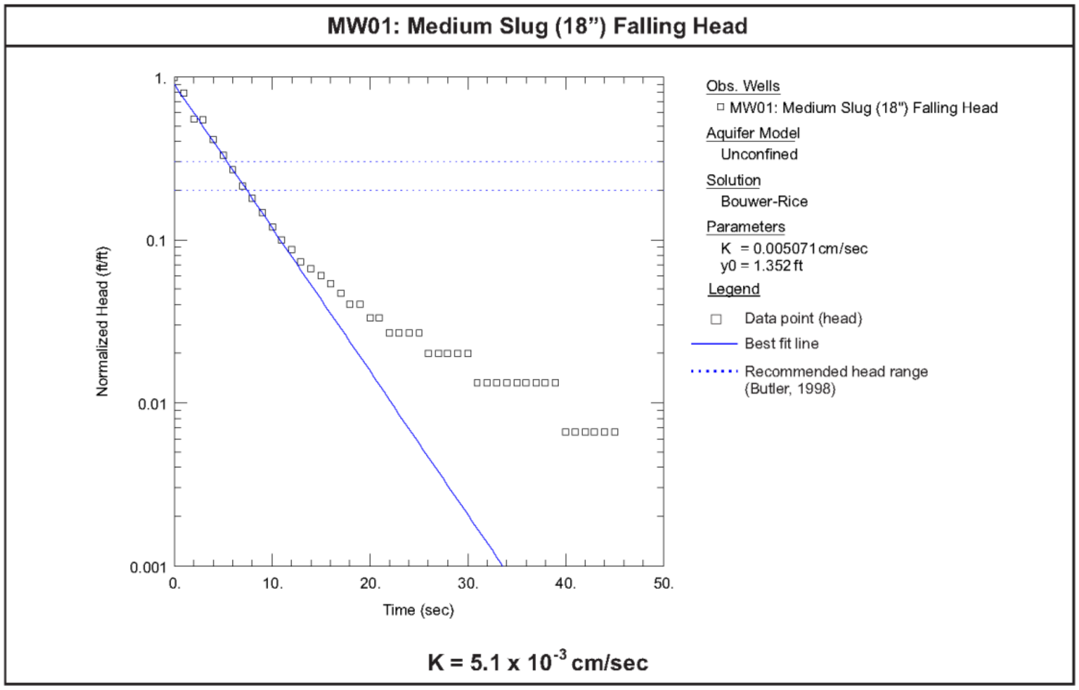


Figure 4.2 Result of rising and falling slug tests using a 24-inch (larger) slug



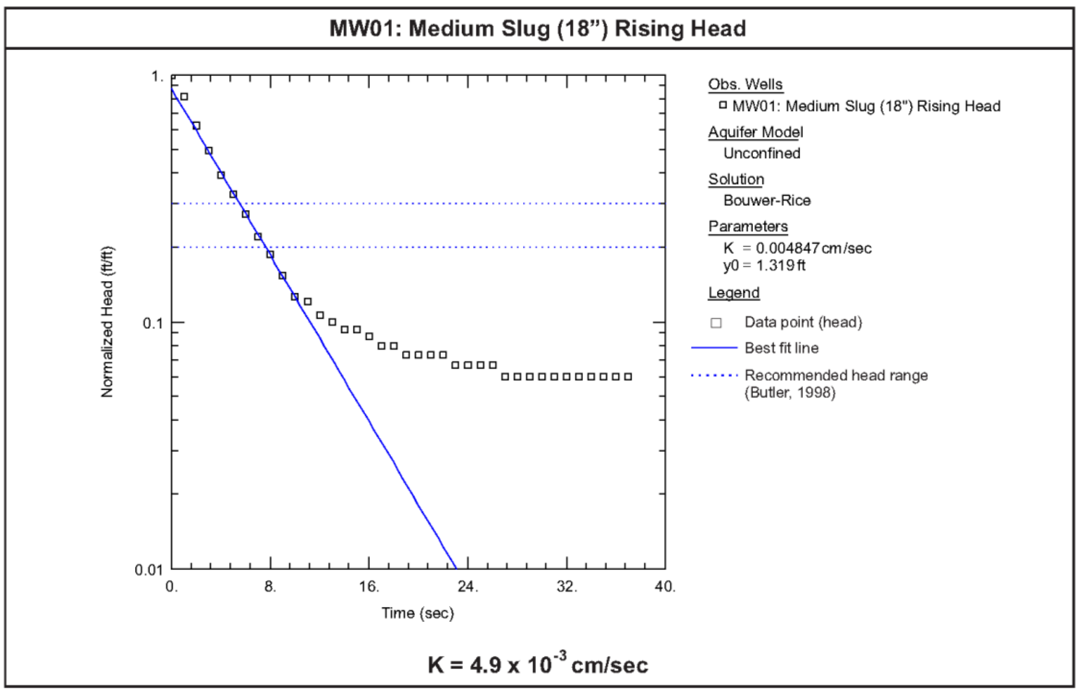


Figure 4.3 Result of rising and falling slug tests using an 18-inch (smaller) slug

4.2 Pumping Test (specific capacity test)

The plots of Figures 4.5 and 4.5 represent head versus time in the Specific Capacity (SC) testing using the smaller pump (Whale Inc., Model WP4012) and larger pump (Whale Inc., Model WP9012).

A flow rate of 1.1 gpm generated a drawdown (dd) of 1.00 feet using the smaller pump (Whale Inc., Model WP4012) and yielded an SC value of 1.1 gpm/ft. A flow rate of 2.0 gpm generated a drawdown (dd) of 1.65 feet using the big pump (Whale Inc., Model WP4012) and yielded an SC value of 1.2 gpm/ft.

Table 4.1 Summary of pumping tests results

Pump	Flow rate (gpm)	Drawdown (feet)	SC (gpm/ft)
WP4012 (Mini Purger)	1.1	1.00	1.1
WP9012 (Mega Purger)	2.0	1.65	1.2

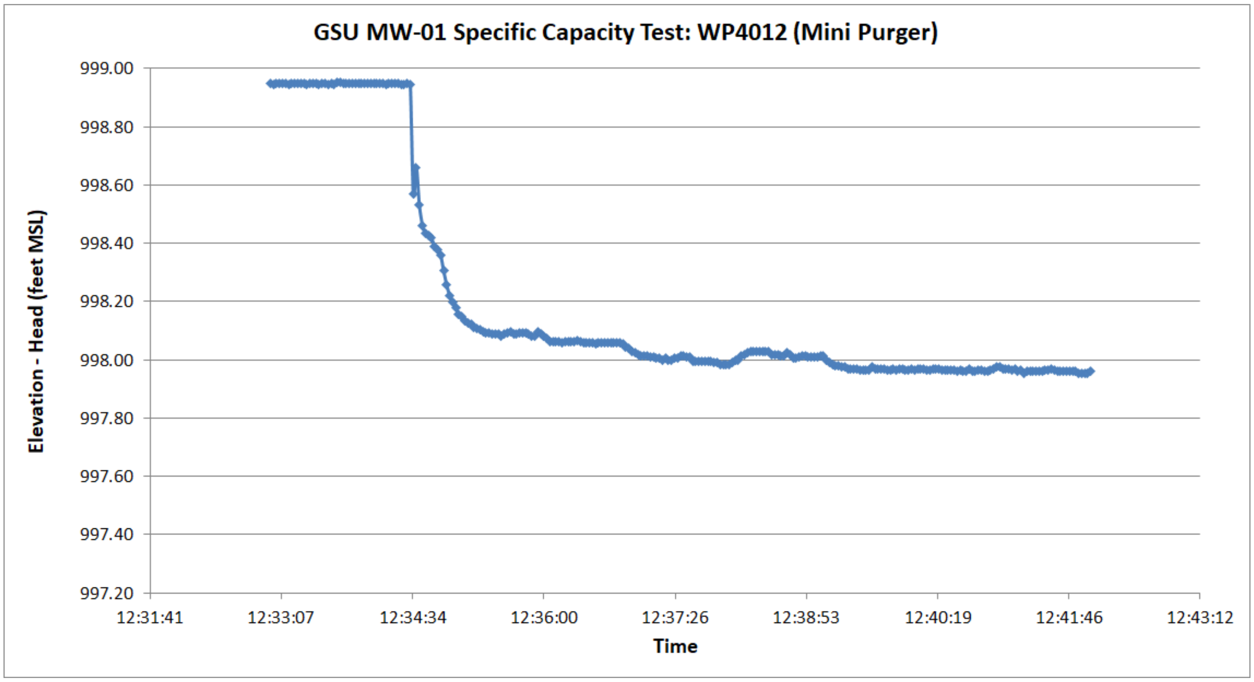


Figure 4.4 Pumping test response using the mini purger

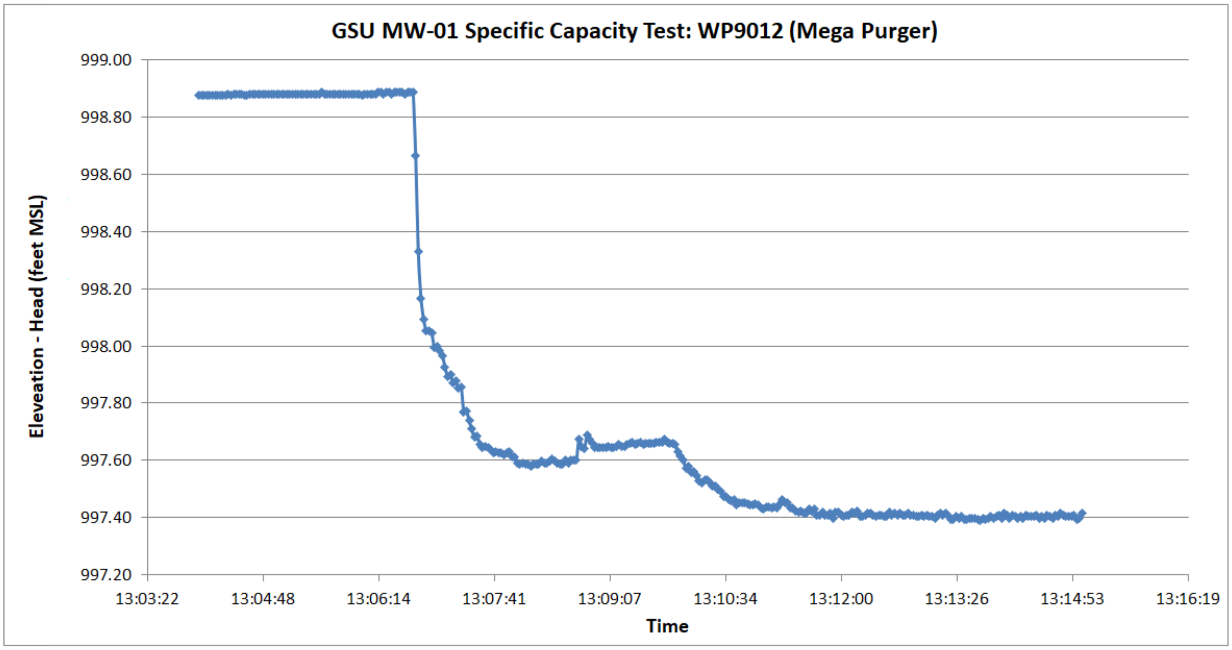


Figure 4.5 Pumping test response with the mega purger

4.3 Estimation of landscape irrigation needs

Due to the urban setting of the GSU downtown campus, the study area is largely composed of concrete infrastructure. Single trees scattered around the urban development constitute the urban forestry class, and Hurt Park is the only lawn area of considerable size in the study area of the grassland class (Figure 4.6).

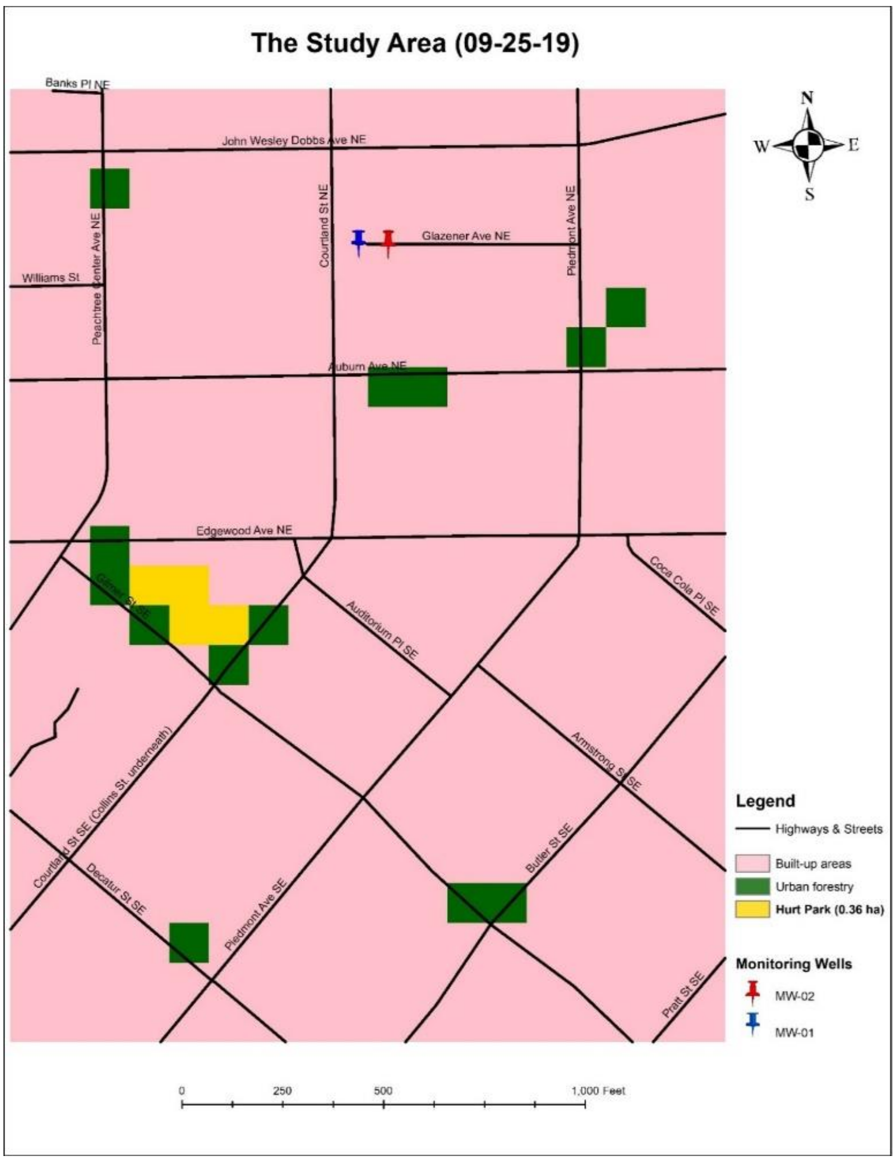


Figure 4.6 Estimate of total landscape area needing irrigation.

From Figure 4.6, the total lawn area is 0.36 ha (5,580,011 sq. in), which multiplied by 1-inch water depth gives 5,580,011 cubic inch water volume or 24,155.90 gallons. Therefore, approximately 24,155 gallons of water, presumably from MW01, is required to wet Hurt park with 1-inch of water. One inch of water a day though not practicable, would waterlog the lawn, so we will not evaluate the feasibility of the wells for that rate of application. Because of the frequency of rainfall in the Atlanta area, one inch per week is probably sufficient to meet the water demands of the plants. According to the precipitation averages shown in Figure 4.7, most weeks, you would get some, or all, or more than that 1-inch from rainfall. We will, therefore, evaluate the number of wells at our established sustained flow rates that would be needed to make up for low rainfall days, supplying 24,155 gallons per week.

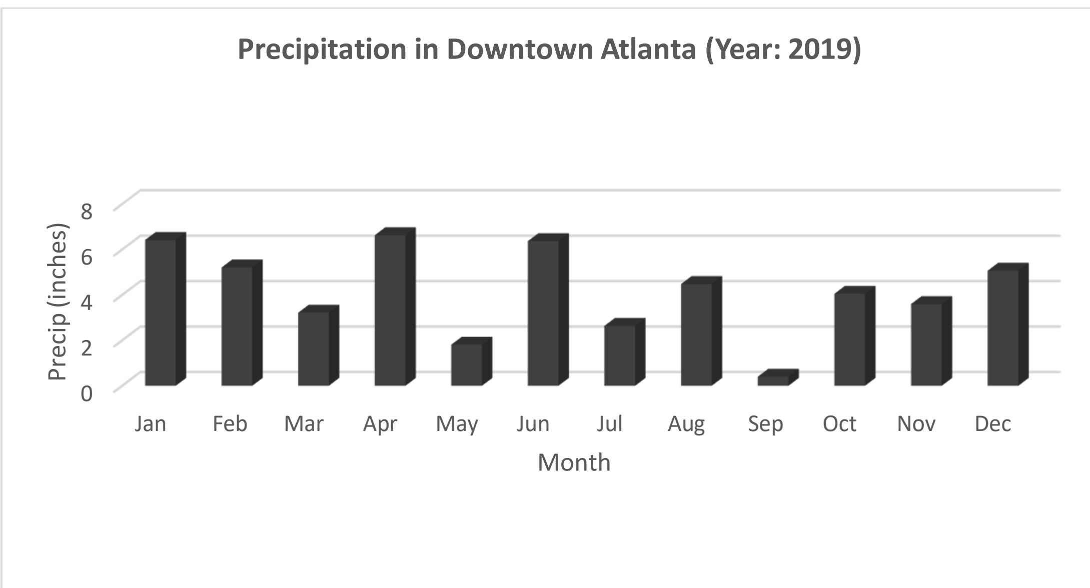


Figure 4.7 Precipitation frequency and amounts in the study area in 2019. Data source: Prism climate group (oregonstate.edu)

4.3.1 Flow rate of 2 gpm

2 gpm = 2880 gpd = 20160 gallons per week ⟶ One well (MW01)

If: 20160 gpw = 1 well

24155 gpw (required) = 1 **well** (with 1-inch of water)

At a sustained flow rate of 2gpm (Table 4.1), one well will be barely sufficient to irrigate GSU's 0.36 ha lawn acreage in a week with 1-inch water. But at the sustained flow rate of 1.1gpm with a smaller pump (Table 4.1), two wells will serve adequately.

In the case of September 2019 (Figure 4.8), for example, a possible schedule for a substantial and infrequent robust irrigation can be to wet the lawn with one inch of water on September 1 after a week of no rain and about a half-inch on the 15th. On September 23 and 30, the lawn can be watered again with one inch of water. That brings it to about 85,000 gallons that would have otherwise come from the Chattahoochee River to wet a relatively small piece of lawn in a month.

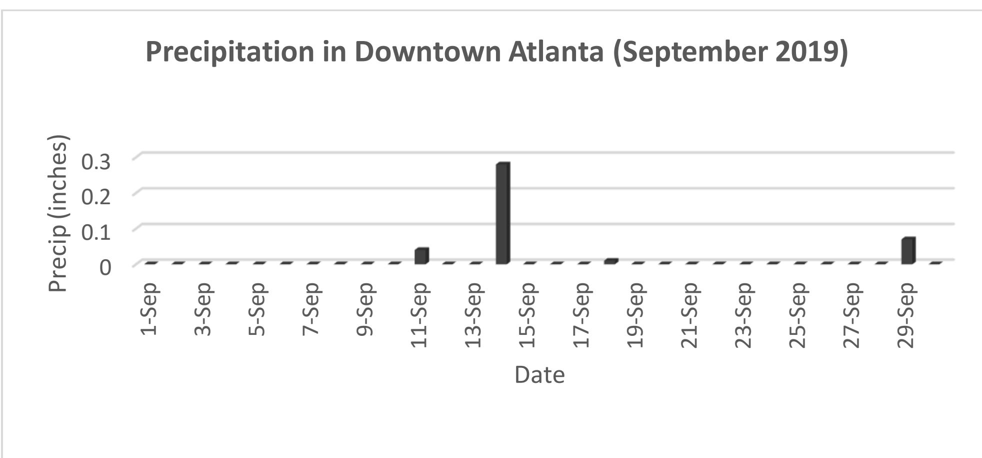


Figure 4.8 Precipitation frequency and amounts in the study area in September 2019. Data source: Prism climate group (oregonstate.edu).

To quantify the potential evapotranspiration demand of the area and account for the rainfall unavailable to the plants, this study employed the PAPADAKIS method as detailed in McGuinness and Bordne (1972).

$$PET = \frac{0.5625\,(e_{max} - e_{min-2}) \times 10}{28} \quad (7)$$

PET is potential evapotranspiration in mm day^{-1}; e_{max} is the saturated vapor pressure in millibars corresponding to the average daily maximum temperature; e_{min-2} is the saturated vapor pressure in millibars corresponding to the mean dewpoint temperature or the average daily minimum temperature minus 2℃. The minimum, maximum, and dewpoint time series of temperature data were downloaded from the Prism climate group locational data download application.

The values e_{max} and e_{min-2} were 28.30 and 12.60 mb, respectively, and PET was calculated to be 3.15 mm day^{-1} or 0.12-inch day^{-1}. This means that all the rain on September 11 and 29, and half of 14 (Figure 4.8) could have been lost to the atmosphere, and the irrigation schedule earlier discussed may be modified to wet the lawn area on September 14 with a full dose - one inch rather than half. Also, in September 2019, with very little rain, the trees in the area would have feasted heavily on the shallow groundwater system for photosynthetic needs, thereby reducing volume in storage. In April (Figure 4.7), with an average precipitation of 1.66 inches per week, there would have been enough water for all plants, and a good amount of groundwater saved.

5 DISCUSSIONS

5.1 Slug Test

Hydraulic conductivity values (10^{-3} cm/sec) represent the upper end of expected values from silty sand or the lower end of well-sorted sand (figure 5.1). The slug test results (Figures 4.2, 4.3) are consistent between varying slug volumes and rising vs. falling head tests.

While rising head and falling head tests may report slightly different K values, the rising head values tend to be considered the better representation and more accurate depiction of the hydraulic conductivity of an aquifer. One reason is that they (rising head tests) present a lesser likelihood of being affected by resistance to flow (and the error that results) than in the case of a falling head test (Powers et al., 2007).

The moderately high hydraulic conductivity values revealed by the slug tests were an early indication that moderate yields of water could be obtained from the shallow groundwater system.

5.2 Pumping Test and Specific Capacity Testing

As expected, the bigger pump had a much larger drawdown and took longer to reach equilibrium flow conditions. The flow rate was twice as high with the big pump, but the discharge per unit drawdown at the well (specific capacity) was not affected by the different sizes of the pumps used. Although pump rates and drawdowns may differ with pumping tests, the specific capacity of the well normalizes those differences, particularly in the cases that the decline in water storage per unit area of an aquifer per unit decline in the hydraulic head is homogenous. In such an instance, it is used as the parameter of reference for comparing different tests on a well or tests from well to well drilled into an unconfined aquifer.

The specific capacities at MW-01 (Table 4.1) would, therefore, serve as the baseline for future tests. Well rehabilitation is imminent if subsequent values get lower than this baseline, or the well is irredeemable if the decline is significant (Johnson, 2005).

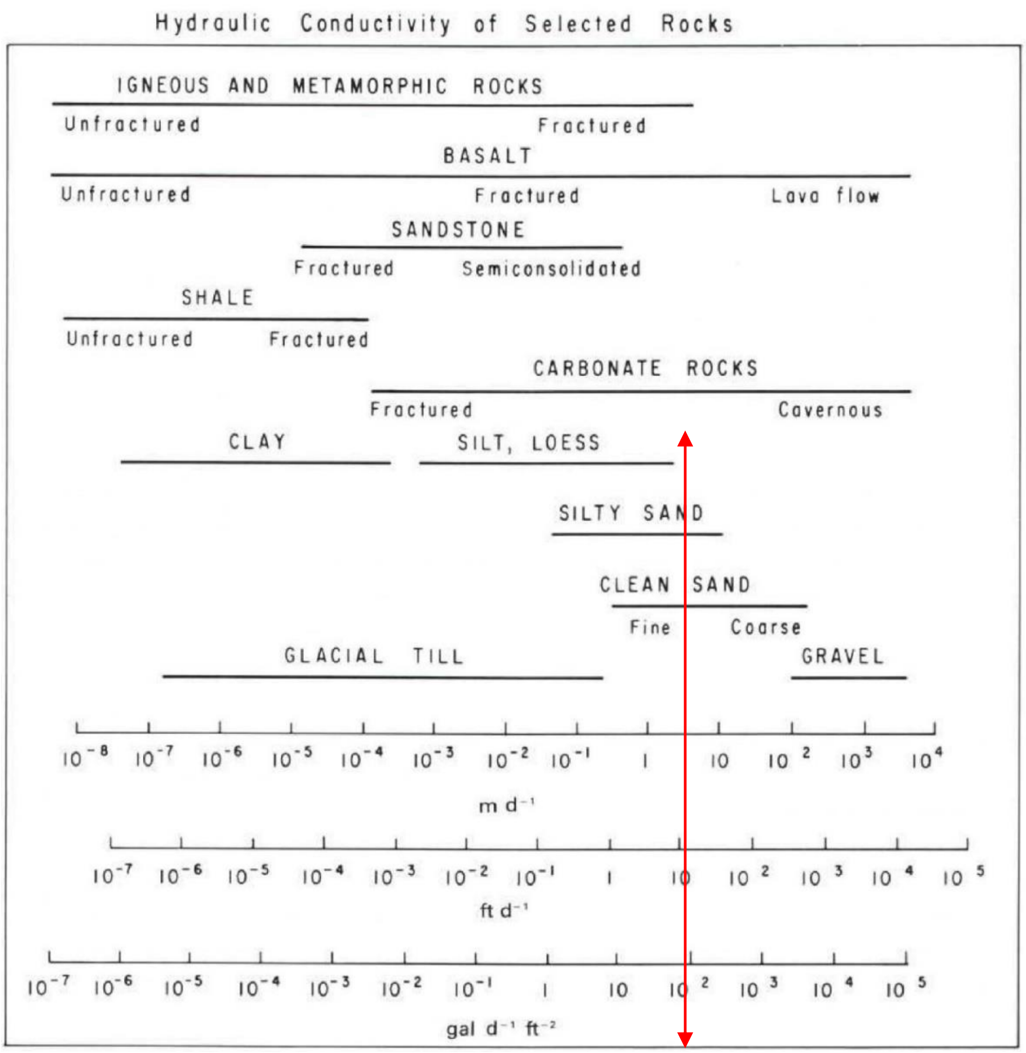


Figure 5.1 Hydraulic conductivity of selected rocks (Heath, 1998). The red line represents the values from the slug tests

5.3 Meeting irrigation needs

The results section detailed how the yield from one well can sustainably be applied as make-up for rainwater to water the plants on the GSU downtown campus. This section presents a self-sustaining set up for the shallow groundwater irrigation system and an economic evaluation of the viability of the project.

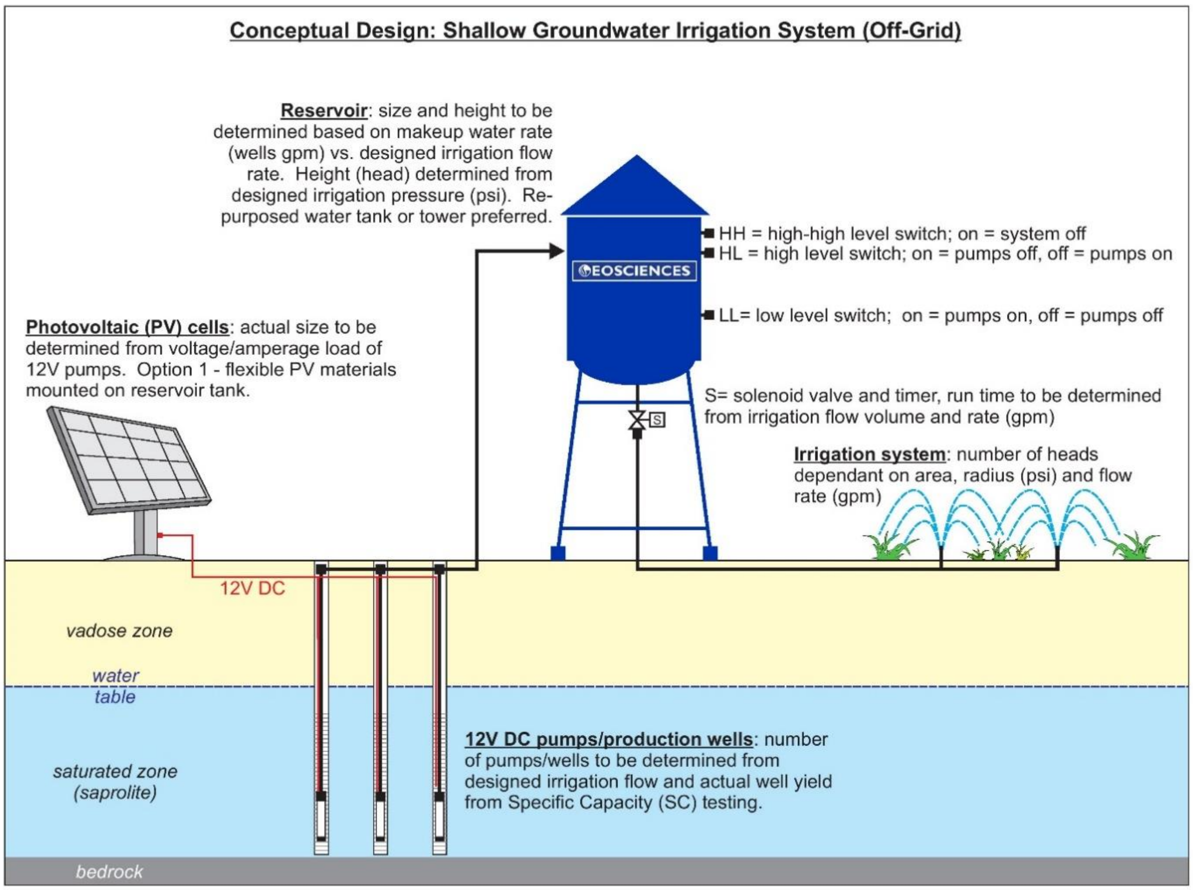


Figure 5.2 Conceptual design for the shallow groundwater irrigation system (B. Meyer)

While the flow from the well(s) to the reservoir can be solar-powered, the flow to the sprinklers will be gravity-driven. Also, the off-grid nature of the design means that the solar system is not connected to a utility company, hence, entirely self-sustaining.

It would take a significant amount of power to lift water from the wells. As you go lower, you would have to pump higher. So, based on the power draw and lift efficiency of the pump, bigger pumps that would move the volume much more quickly should be considered.

5.3.1 ***Economic evaluation of the project***

This research evaluated the economics of exploiting the shallow groundwater resource on the GSU campus versus the current practice of using potable water supply for irrigation. The economic model was tested for a life span of ten years.

Inputs			
Amount of water (gallon) required/month	$	96,620.00	
Months/Year		12	
Amount of water(gallon)/year	$	1,159,440.00	
Average watercost in Atlanta/CCF		$6.16	City of Atlanta Watershed Management (base charge = $6.56)
Cost of water per year	$	9,529.92	1CCF 100CF = 750 gallons. THEREFORE, 1,159,440 gallons = 1546CCF
Cost of pump	$	404.00	Manufacturer Quote
Cost of Solar installation	$	7,500.00	Manufacturer Quote
Cost of storage reservoir (with installation)	$	20,000.00	Manufacturer Quote
Cost of sprinkler system	$	6,000.00	Manufacturer Quote
Cost of drilling one well	$	1,300.00	Expert Quote
Cost of irrigation using potable water	$	9,529.92	
Total installation/capital cost	$	35,204.00	
Annual rate		15%	

Maintenace cost is assumed to be 1% of total installation cost

Figure 5.3 Inputs for the economic model, including sources that informed the estimates

The model made a few assumptions. (1) The annual maintenance cost of the well and irrigation system to be 1% of total installation costs. (2) The irrigation water requirement was set at 1-inch per week for one year, and (3) A discount rate of 15%. The capital cost incorporated the costs of drilling one well, the sprinkler system, a storage reservoir, the solar system installation, and the WP9012 mega purger pump. From published water bill rates from the Department of

Watershed Management, the annual cost of using potable water to wet a lawn the size of the Hurt Park was estimated to be $9,529.92.

	2020 0	2021 1	2022 2	2023 3	2024 4	2025 5	2026 6	2027 7	2028 8	2029 9
A	$ 35,204.00	$ 352.04	$ 352.04	$ 352.04	$ 352.04	$ 352.04	$ 352.04	$ 352.04	$ 352.04	$ 352.04
PWC = Σ	**$ 35,204.00**	**$ 306.12**	**$ 266.19**	**$ 231.47**	**$ 201.28**	**$ 175.03**	**$ 152.20**	**$ 132.34**	**$ 115.08**	**$ 100.07**
B		$ 9,529.92	$9,529.92	$ 9,529.92	$ 9,529.92	$ 9,529.92	$ 9,529.92	$ 9,529.92	$ 9,529.92	$ 9,529.92
PWC = S	-	**$ 8,286.89**	**$7,205.99**	**$ 6,266.08**	**$ 5,448.76**	**$ 4,738.05**	**$ 4,120.05**	**$ 3,582.65**	**$ 3,115.35**	**$ 2,709.00**

Results		
PWC "SHALLOW GROUNDWATER USE", A	$	36,883.79
PWC "POTABLE WATER USE", B	$	45,472.81

PWC = Present Worth Cost

DECISION	CHOOSE SHALLOW GROUNDWATER USE

Figure 5.4. A ten-year cash flow projection of shallow groundwater (A) versus potable water versus supplies (B) for irrigation

For shallow groundwater use (case A), the initial cost (capital) is high but operational cost through the life of the project (ten years) is low (Figure 5.4) when compared to case B. In case A, we have a one-time cost of $35,204 and a uniform annual maintenance cost of $352. This maintenance cost assumes that 1% of the initial one-time cost will be used for general equipment maintenance and repairs. For case B, there is no installation cost but a uniform cost of potable water irrigation that accounts for the cost needed to supply enough water to the plants in ten years. A lesser present worth cost (pwc) of $36,883 for the shallow groundwater irrigation supply, compared to a pwc of $45,472 for potable water use, presents the utilization of our shallow wells as a more economically viable water supply for irrigation.

5.4 GPR Profiling and the Potential Groundwater Boundary

Multiple GPR profiles were run on Courtland Street, Auburn Avenue, John Wesley Dobbs Avenue, Peachtree Center Avenue, Piedmont Avenue, Peachtree Street, and across the monitoring wells (MW-01 and MW-02) at 100 Auburn NE Atlanta.

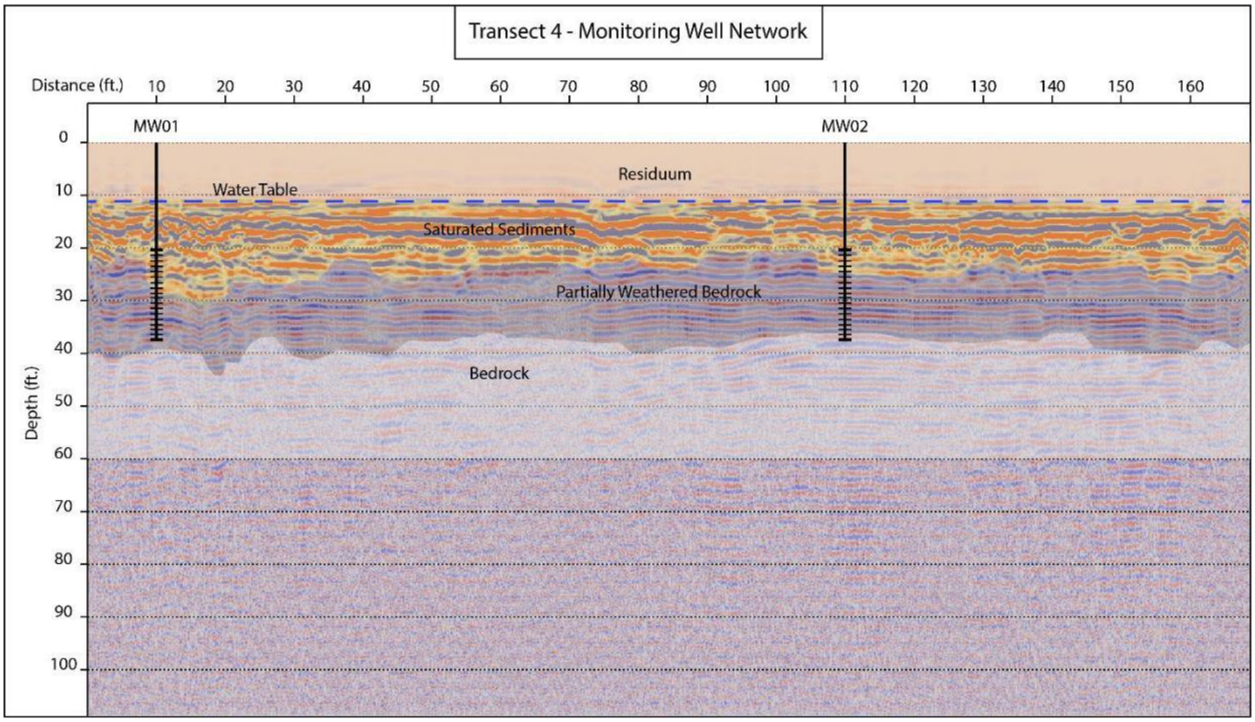


Figure 5.5 GPR profile of GSU's monitoring well network at 100 Auburn (Waguespack, 2019).

In Figure 5.5 above, the water table surface separates the water-saturated and unsaturated regolith (saprolites) at about 12 ft. The regolith is relatively thick (about 30 ft). Below the saturated regolith zone lies the partially weathered bedrock situated above solid bedrock. This is descriptive of the geology of the Georgia Piedmont Province, as shown in Figure 2.1 b. However, the spatial variability of the geologic layers hinted in Figure 5.4 was characteristic of the study area.

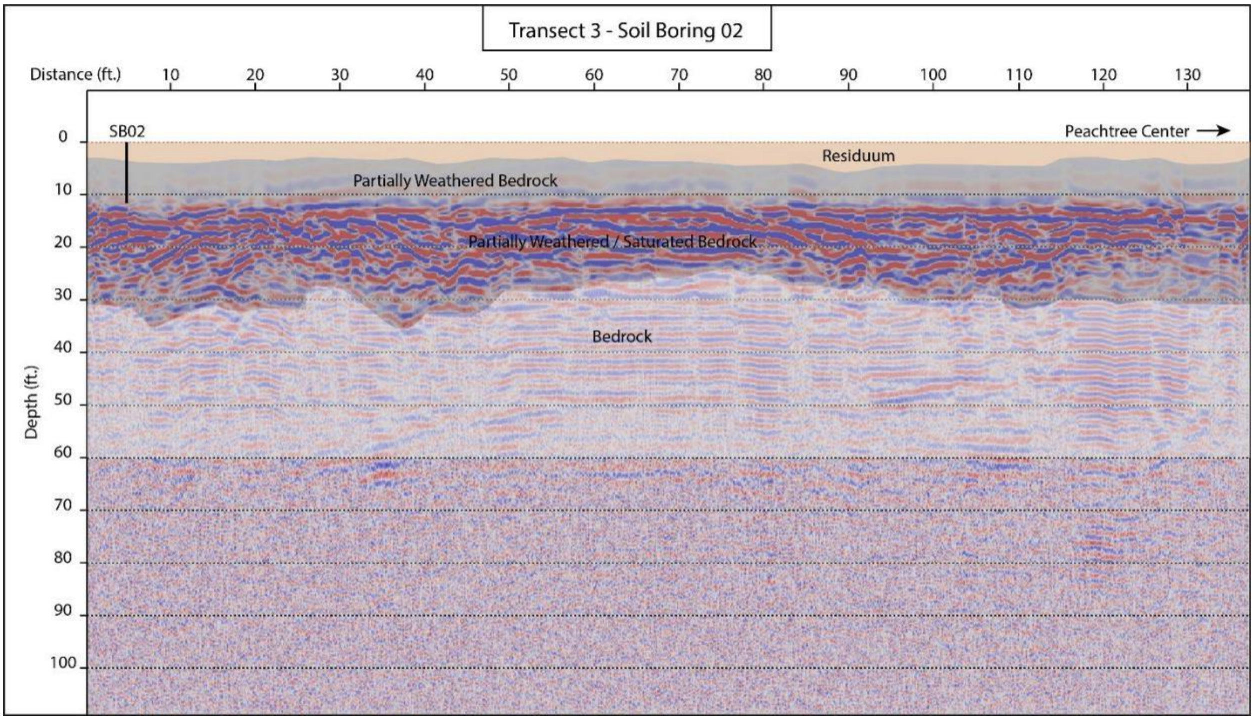


Figure 5.6 GPR profile along Peachtree Center Avenue (Waguespack, 2019).

Drilling through the area represented in Figure 5.6 was unsuccessful as the Hollow Stem Augers (HSA) encountered competent rocks (granite gneiss) and failed to advance. From the above profile (Figure 5.6), the regolith (the target of the research) is thinned out (less than 5 ft deep), and bedrock lies above the water table. The geophysical data indicates that shallow groundwater does not exist in this area above the bedrock interface and deeper or more expensive cased bedrock wells would be necessary to produce water for non-potable use.

Figure 5.7 is a cross-section of the GPR profiles run in the study area showing why some well locations were more suitable for shallow wells than others. A topographic investigation of the study area (Figure 5.8) reveals that the locations on which drilling operations were not successful lie at higher elevations than the sites where shallow groundwater wells were successfully drilled.

The area to the west of the proposed boundary drawn to parallel the 1030 ft topo line (based on the drilling and GPR data) is where the drilling hit bedrock above the water table. On the map of Figure 5.9, this area is labeled as “Area not suitable for shallow wells” and the area east of that is labeled as “Area likely suitable for shallow wells." Erosion and transport perhaps contributed to the thicker regolith in the area likely suitable for shallow wells.

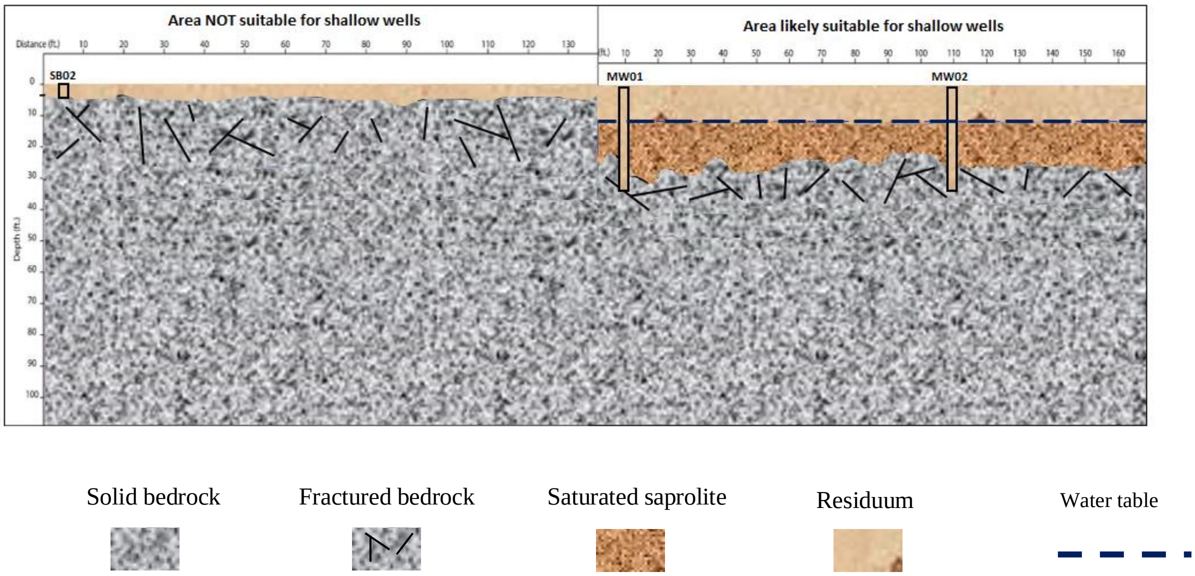


Figure 5.7 The varying thickness of the regolith layer made some areas more suitable for shallow wells and others less so

The existing well shown in Figure 5.9 was about 37 feet deep BTOC with only about 3 feet of water. Future well installations in the area can now be better guided. This research thereby recommends that additional geophysical study of regolith/bedrock transition be carried out in the Atlanta area to reduce the gap between water resources beneath the ground and how to locate them effectively.

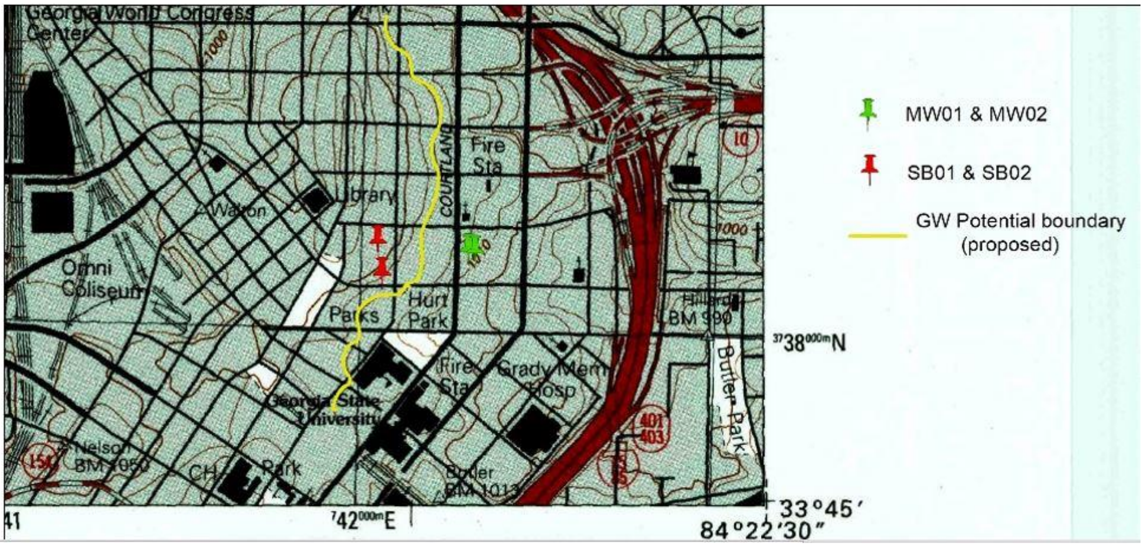


Figure 5.8 Topographic map of Northwest Atlanta zoomed into the study area to show borehole locations. A shallow groundwater potential boundary is proposed.

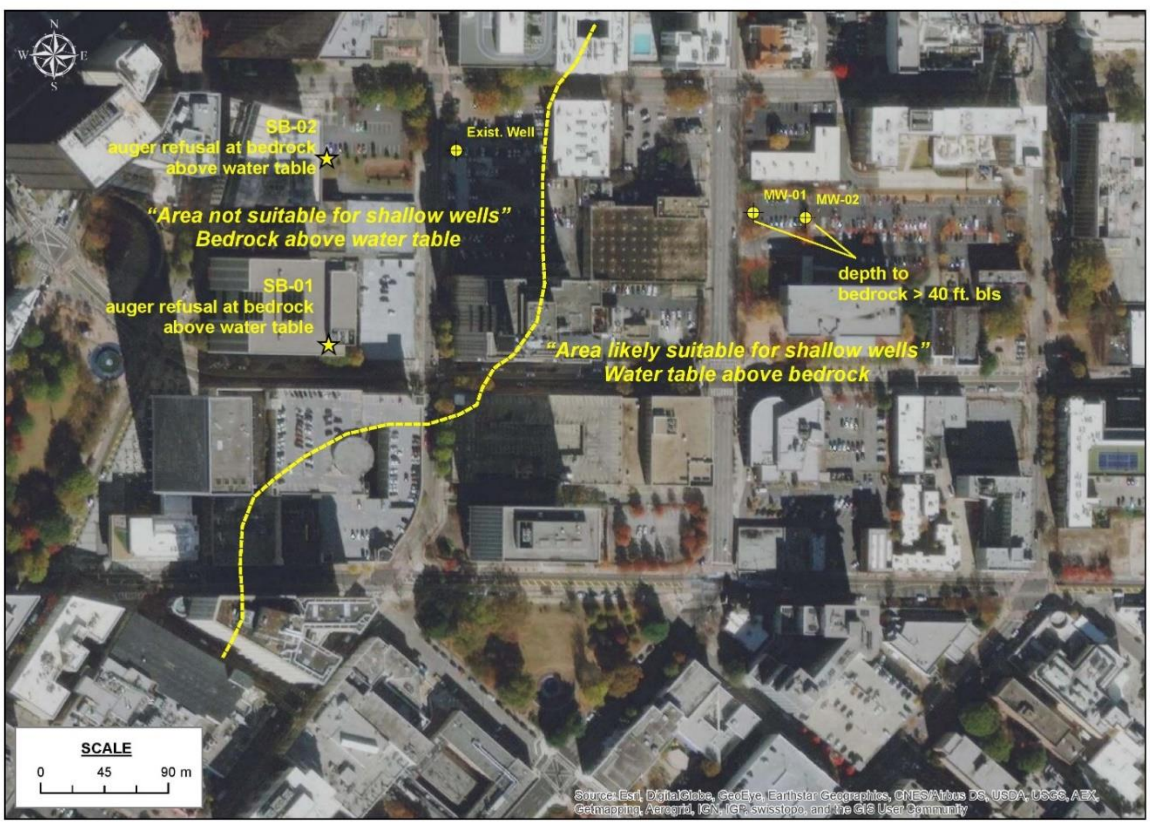


Figure 5.9 Areas most likely suitable for shallow groundwater extraction for non-potable use based on the drilling and GPR data

6 CONCLUSION

The study investigated the shallow groundwater potential of the saprolite materials (regolith) underlying the Georgia State University downtown campus. Aquifer testing (slug tests and Specific Capacity testing) indicate flow rates of up to 2 gpm are attainable in the immediate area of the GSU monitoring well network and could provide a sustainable source of water for non-potable use. However, there are significant portions of the GSU downtown campus where shallow water does not exist above the bedrock interface. In addition, due to the variable lithology of the granitic gneiss, it is expected that hydraulic conductivity values within the study area are spatially variable. Two additional monitoring wells are being installed on the GSU campus in April 2020 and will be used to evaluate the spatial variability of hydraulic conductivity. Therefore, groundwater availability needs to be evaluated on a site by site basis. This correlates with previous research (Waguespack, 2019) that determined that water quality would also need to be assessed on a site basis for non-potable use.

REFERENCES

Abdullahi, M. G., Toriman, M. E., & Gasim, M. B. (2014). The Application of Vertical Electrical Sounding (VES) For Groundwater Exploration in Tudun Wada Kano State, Nigeria. *International Journal of Engineering Research and Reviews*, *2*(4), 51-55.

Alfaifi, H. J. (2015). Comparing Slug Test Methods for Unconfined Aquifers.

Alisiobi, A. R., & Ako, B. D. (2012, April). Groundwater investigation using combined geophysical methods. In *Adapted from Extended Abstract preparation with Poster Presentation at AAPG Annual Convention and Exhibition, Long Beach, California*.

Atlanta Regional Commission. (2013). Tri-state water wars.

Atlanta Regional Commission. (2018). Population & Employment Forecasts.

Ariyo, S. O., & Banjo, A. A. (2008). Application of electrical resistivity method for groundwater exploration in a sedimentary terrain, a case study of Ilara-Remo, Southwestern Nigeria. Continental Journal of Earth Sciences, 3, 53-58.

Barrow, C. J. (2016). *Water resources and agricultural development in the tropics*. Routledge.

Barry, B., Kortatsi, B., Forkuor, G., Gumma, M. K., Namara, R. E., Rebelo, L. M., ... & Laube, W. (2010). *Shallow groundwater in the Atankwidi Catchment of the White Volta Basin: Current status and future sustainability* (Vol. 139). IWMI.

Boswinkel, J. A. (2000). Information note, international groundwater resources assessment center (IGRAC), Netherlands Institute of applied geoscience, Netherlands. *UNEP (2002), Vital Water Graphics-An Overview of the State of the World's Fresh and Marine Waters, UNEP, Nairobi, Kenya*.

Bouwer, H., & 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.

Bouwer, H. (1989). The Bouwer and Rice slug test—an update. Groundwater, 27(3), 304-309

Clarke, J. S., & Peck, M. F. (1991). *Ground-water resources of the south metropolitan Atlanta region, Georgia* (No. 88). Georgia Geologic Survey.

Cressler, C. W., Thurmond, C. J., & Hester, W. G. (1982). *Groundwater in the greater Atlanta region, Georgia* (No. 82-569).

Davis, J. L., & ANNAN, A. P. (1989). Ground-penetrating radar for high-resolution mapping of soil and rock stratigraphy 1. *Geophysical prospecting*, *37*(5), 531-551.

Dielman, S. A. (2005). Hydraulic Conductivity/Transmissibility. *Water Encyclopedia*.

Duffield, G. M. (2007). Aqtesolv Pro 4.5. Aquifer Test Analysis Software. *HydroSOLVE Inc*.

McGuinness, J. L., & Bordne, E. F. (1972). *A comparison of lysimeter-derived potential evapotranspiration with computed values* (No. 1452). US Dept. of Agriculture.

Heath, R. C. (1998). *Basic ground-water hydrology* (Vol. 2220). US Department of the Interior, US Geological Survey.

Herrick, S. M., & LeGrand, H. E. (1949). Geology and ground-water resources of the Atlanta area. *Georgia: Georgia Geologic Survey Bulletin*, *55*, 124.

Howard, K. W. (Ed.). (2007). *Urban Groundwater, Meeting the Challenge: IAH Selected Papers on Hydrogeology 8*. CRC Press.

Ismael, R. I. (2016). Slug Tests in Unconfined Aquifers.

Johnson, T. (2005). SPECIFIC CAPACITY—A MEASURE OF WELL PERFORMANCE, WELL PROBLEMS, AND AQUIFER TRANSMISSIVITY: PART 1 OF 2. *Technical Bulletin*, *2*.

Lerner, D. N. (2002). Identifying and quantifying urban recharge: a review. *Hydrogeology journal*, *10*(1), 143-152.

Lerner, D. N., Burston, M. W., & Bishop, P. K. (1993). Hydrogeology of the Coventry region (UK): an urbanized, multilayer, dual porosity aquifer system. *Journal of Hydrology*, *149*(1-4), 111-135.

Miller, J. A. (1990). Ground Water Atlas of the United States Alabama, Florida, Georgia, and South Carolina (HA 730-G). *US Geological Survey. Available: http://pubs. usgs. gov/ha/ha730/ch_g/G-text6. html.*

Molz, F. J., Güven, O., & Melville, J. G. (1990). *A new approach and methodologies for characterizing the hydrogeologic properties of aquifers* (Vol. 1). Robert S. Kerr Environmental Research Laboratory, Office of Research and Development, US Environmental Protection Agency.

National Groundwater Association. (2016). Facts about global groundwater usage. *URL: http://www. ngwa. org/Fundamentals/Documents/global-groundwater-use-fact-sheet. pdf*.

National Groundwater Association. (2016). Groundwater use in the United States of America. *Westerville, OH: Author*.

Powers, J. P., Corwin, A. B., Schmall, P. C., & Kaeck, W. E. (2007). *Construction dewatering and groundwater control: new methods and applications*. John Wiley & Sons.

Prieto, C. (2005). *Groundwater-seawater interactions: Seawater intrusion, submarine groundwater discharge and temporal variability and randomness effects* (Doctoral dissertation, KTH).

Siebert, S., Burke, J., Faures, J. M., Frenken, K., Hoogeveen, J., Döll, P., & Portmann, F. T. (2010). Groundwater use for irrigation—a global inventory. *Hydrology and earth system sciences*, *14*(10), 1863-1880.

Smith, S. (2016). FLORIDA VS. GEORGIA: THE DECADES LONG WATER WAR CONTINUES, BUT IS AN END IN SIGHT?.

Taylor, C. J., & Alley, W. M. (2002). *Ground-water-level monitoring and the importance of long-term water-level data* (No. 1217-2002). US Geological Survey.

Tinker, S. C., Moe, C. L., Klein, M., Flanders, W. D., Uber, J., Amirtharajah, A., ... & Tolbert, P. E. (2009). Drinking water residence time in distribution networks and emergency department visits for gastrointestinal illness in Metro Atlanta, Georgia. *Journal of water and health*, *7*(2), 332-343.

Tsur, Y. (1990). The stabilization role of groundwater when surface water supplies are uncertain: the implications for groundwater development. *Water resources research*, *26*(5), 811-818.

US Census Bureau. (2018). Census Bureau QuickFacts: State and County Quick Facts.

Waguespack, J. (2019). Characterization of a Shallow Urban Aquifer in Atlanta, Georgia.

Watson, S. (2009). *Georgia: Past and Present*. The Rosen Publishing Group.

Whale pump | Groundwater Purging Pumps | Mini Purge .... https://www.envisupply.com/pumps/whale-pumps-water-purging-pumping-solution.htm

Winter, T. C., Harvey, J., Franke, O., & Alley, W. (1998). Natural processes of ground-water and surface-water interaction. *Ground Water and Surface Water: A Single Resource, US Geological Survey Circular*, *1139*, 2-50.

Yang, Y., Lerner, D. N., Barrett, M. H., & Tellam, J. H. (1999). Quantification of groundwater recharge in the city of Nottingham, UK. *Environmental geology*, *38*(3), 183-198.

APPENDICES

Appendix A: Pumping Test Data

Serial number: 2058160				
Project ID:				
GSU MW-01 SC Test				
Location:			TOC =	1011.6
MW-01			DTW =	12.65
LEVEL			WT_EL =	998.95
UNIT: ft				55.035
Offset: 0.000000 ft				943.915
TEMPERATURE				
UNIT: °C				
Date	Time	EL_TOC	LEVEL	TEMPERATURE
2/11/2020	12:33:00	998.95	55.035	20.5
2/11/2020	12:33:02	998.94	55.029	20.5
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2/11/2020	12:33:36	998.95	55.035	20.5
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2/11/2020	12:33:40	998.95	55.035	20.5
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2/11/2020	12:34:24	998.95	55.035	20.5
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2/11/2020	12:34:28	998.94	55.029	20.5
2/11/2020	12:34:30	998.95	55.035	20.5
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2/11/2020	12:35:06	998.15	54.232	20.4
2/11/2020	12:35:08	998.13	54.217	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:37:08	998.01	54.099	20.4
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2/11/2020	12:37:44	998.00	54.08	20.4
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2/11/2020	12:37:54	997.99	54.075	20.4
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2/11/2020	12:37:58	997.99	54.07	20.4
2/11/2020	12:38:00	997.99	54.07	20.4
2/11/2020	12:38:02	997.99	54.07	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:38:34	998.02	54.104	20.4
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2/11/2020	12:38:38	998.01	54.099	20.4
2/11/2020	12:38:40	998.02	54.109	20.4
2/11/2020	12:38:42	998.02	54.104	20.4
2/11/2020	12:38:44	998.01	54.09	20.4
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2/11/2020	12:38:54	998.01	54.095	20.4
2/11/2020	12:38:56	998.01	54.095	20.4
2/11/2020	12:38:58	998.01	54.095	20.4
2/11/2020	12:39:00	998.01	54.095	20.4
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2/11/2020	12:39:14	997.98	54.065	20.4
2/11/2020	12:39:16	997.98	54.06	20.4
2/11/2020	12:39:18	997.98	54.06	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:39:58	997.97	54.05	20.4
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2/11/2020	12:40:06	997.97	54.055	20.4
2/11/2020	12:40:08	997.97	54.055	20.4
2/11/2020	12:40:10	997.97	54.055	20.4
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2/11/2020	12:40:40	997.97	54.055	20.4
2/11/2020	12:40:42	997.96	54.045	20.4
2/11/2020	12:40:44	997.96	54.045	20.4
2/11/2020	12:40:46	997.97	54.05	20.4
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2/11/2020	12:40:52	997.96	54.045	20.4
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2/11/2020	12:41:08	997.97	54.05	20.4
2/11/2020	12:41:10	997.97	54.055	20.4
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2/11/2020	12:41:16	997.96	54.04	20.4
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2/11/2020	12:41:34	997.97	54.055	20.4
2/11/2020	12:41:36	997.97	54.05	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:42:34	997.97	54.05	20.4
2/11/2020	12:42:36	997.97	54.05	20.4
2/11/2020	12:42:38	997.96	54.045	20.4
2/11/2020	12:42:40	997.96	54.045	20.4
2/11/2020	12:42:42	997.96	54.045	20.4
2/11/2020	12:42:44	997.96	54.04	20.4
2/11/2020	12:42:46	997.97	54.05	20.4
2/11/2020	12:42:48	997.96	54.045	20.4
2/11/2020	12:42:50	997.96	54.045	20.4
2/11/2020	12:42:52	997.96	54.045	20.4
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2/11/2020	12:42:56	997.96	54.045	20.4
2/11/2020	12:42:58	997.96	54.045	20.4
2/11/2020	12:43:00	997.96	54.04	20.4
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2/11/2020	12:43:32	997.96	54.04	20.4
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2/11/2020	12:43:44	997.98	54.06	20.4
2/11/2020	12:43:46	997.98	54.06	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:44:00	997.98	54.065	20.4
2/11/2020	12:44:02	997.98	54.065	20.4
2/11/2020	12:44:04	997.98	54.065	20.4
2/11/2020	12:44:06	997.98	54.065	20.4
2/11/2020	12:44:08	997.98	54.065	20.4
2/11/2020	12:44:10	997.98	54.065	20.4
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2/11/2020	12:44:18	997.98	54.065	20.4
2/11/2020	12:44:20	997.98	54.06	20.4
2/11/2020	12:44:22	997.98	54.065	20.4
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2/11/2020	12:44:26	997.98	54.065	20.4
2/11/2020	12:44:28	997.98	54.065	20.4
2/11/2020	12:44:30	997.99	54.07	20.4
2/11/2020	12:44:32	997.99	54.075	20.4
2/11/2020	12:44:34	998.00	54.08	20.4
2/11/2020	12:44:36	998.00	54.085	20.4
2/11/2020	12:44:38	998.00	54.085	20.4
2/11/2020	12:44:40	998.00	54.085	20.4
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2/11/2020	12:44:44	997.98	54.065	20.4
2/11/2020	12:44:46	997.98	54.06	20.4
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2/11/2020	12:44:50	997.97	54.055	20.4
2/11/2020	12:44:52	997.97	54.055	20.4
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2/11/2020	12:44:56	997.97	54.05	20.4
2/11/2020	12:44:58	997.96	54.045	20.4
2/11/2020	12:45:00	997.96	54.045	20.4
2/11/2020	12:45:02	997.97	54.05	20.4
2/11/2020	12:45:04	997.97	54.055	20.4
2/11/2020	12:45:06	997.98	54.06	20.4
2/11/2020	12:45:08	997.99	54.07	20.4
2/11/2020	12:45:10	998.00	54.08	20.4
2/11/2020	12:45:12	998.00	54.085	20.4
2/11/2020	12:45:14	998.00	54.085	20.4
2/11/2020	12:45:16	998.00	54.085	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:45:24	997.99	54.075	20.4
2/11/2020	12:45:26	997.99	54.07	20.4
2/11/2020	12:45:28	997.99	54.07	20.4
2/11/2020	12:45:30	997.99	54.075	20.4
2/11/2020	12:45:32	997.99	54.075	20.4
2/11/2020	12:45:34	997.99	54.075	20.4
2/11/2020	12:45:36	997.99	54.07	20.4
2/11/2020	12:45:38	997.99	54.07	20.4
2/11/2020	12:45:40	997.99	54.075	20.4
2/11/2020	12:45:42	997.99	54.075	20.4
2/11/2020	12:45:44	997.99	54.07	20.4
2/11/2020	12:45:46	997.99	54.07	20.4
2/11/2020	12:45:48	997.99	54.07	20.4
2/11/2020	12:45:50	997.99	54.07	20.4
2/11/2020	12:45:52	997.99	54.07	20.4
2/11/2020	12:45:54	997.99	54.07	20.4
2/11/2020	12:45:56	997.99	54.075	20.4
2/11/2020	12:45:58	997.99	54.07	20.4
2/11/2020	12:46:00	997.99	54.07	20.4
2/11/2020	12:46:02	997.99	54.07	20.4
2/11/2020	12:46:04	997.99	54.07	20.4
2/11/2020	12:46:06	997.99	54.07	20.4
2/11/2020	12:46:08	997.99	54.07	20.4
2/11/2020	12:46:10	997.99	54.07	20.4
2/11/2020	12:46:12	997.99	54.07	20.4
2/11/2020	12:46:14	997.99	54.07	20.4
2/11/2020	12:46:16	997.99	54.075	20.4
2/11/2020	12:46:18	997.99	54.075	20.4
2/11/2020	12:46:20	997.99	54.075	20.4
2/11/2020	12:46:22	998.00	54.08	20.4
2/11/2020	12:46:24	998.00	54.08	20.4
2/11/2020	12:46:26	998.00	54.085	20.4
2/11/2020	12:46:28	998.00	54.085	20.4
2/11/2020	12:46:30	997.99	54.075	20.4
2/11/2020	12:46:32	997.98	54.065	20.4
2/11/2020	12:46:34	997.98	54.06	20.4
2/11/2020	12:46:36	997.98	54.06	20.4
2/11/2020	12:46:38	997.97	54.055	20.4
2/11/2020	12:46:40	997.97	54.05	20.4
2/11/2020	12:46:42	997.97	54.05	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:46:52	997.97	54.05	20.4
2/11/2020	12:46:54	997.96	54.045	20.4
2/11/2020	12:46:56	997.96	54.045	20.4
2/11/2020	12:46:58	997.97	54.05	20.4
2/11/2020	12:47:00	997.97	54.05	20.4
2/11/2020	12:47:02	997.96	54.045	20.4
2/11/2020	12:47:04	997.96	54.045	20.4
2/11/2020	12:47:06	997.96	54.045	20.4
2/11/2020	12:47:08	997.96	54.045	20.4
2/11/2020	12:47:10	997.96	54.045	20.4
2/11/2020	12:47:12	997.96	54.045	20.4
2/11/2020	12:47:14	997.96	54.045	20.4
2/11/2020	12:47:16	997.96	54.045	20.4
2/11/2020	12:47:18	997.96	54.045	20.4
2/11/2020	12:47:20	997.97	54.05	20.4
2/11/2020	12:47:22	997.96	54.045	20.4
2/11/2020	12:47:24	997.96	54.045	20.4
2/11/2020	12:47:26	997.97	54.05	20.4
2/11/2020	12:47:28	997.96	54.045	20.4
2/11/2020	12:47:30	997.97	54.05	20.4
2/11/2020	12:47:32	997.96	54.045	20.4
2/11/2020	12:47:34	997.97	54.05	20.4
2/11/2020	12:47:36	997.97	54.05	20.4
2/11/2020	12:47:38	997.97	54.05	20.4
2/11/2020	12:47:40	997.97	54.05	20.4
2/11/2020	12:47:42	997.97	54.05	20.4
2/11/2020	12:47:44	997.97	54.05	20.4
2/11/2020	12:47:46	997.97	54.05	20.4
2/11/2020	12:47:48	997.97	54.05	20.4
2/11/2020	12:47:50	997.97	54.05	20.4
2/11/2020	12:47:52	997.97	54.05	20.4
2/11/2020	12:47:54	997.96	54.045	20.4
2/11/2020	12:47:56	997.96	54.045	20.4
2/11/2020	12:47:58	997.97	54.05	20.4
2/11/2020	12:48:00	997.97	54.05	20.4
2/11/2020	12:48:02	997.97	54.05	20.4
2/11/2020	12:48:04	997.97	54.055	20.4
2/11/2020	12:48:06	997.97	54.05	20.4
2/11/2020	12:48:08	997.97	54.05	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:48:16	997.96	54.045	20.4
2/11/2020	12:48:18	997.96	54.045	20.4
2/11/2020	12:48:20	997.96	54.045	20.4
2/11/2020	12:48:22	997.96	54.04	20.4
2/11/2020	12:48:24	997.96	54.04	20.4
2/11/2020	12:48:26	997.96	54.04	20.4
2/11/2020	12:48:28	997.96	54.045	20.4
2/11/2020	12:48:30	997.96	54.04	20.4
2/11/2020	12:48:32	997.97	54.05	20.4
2/11/2020	12:48:34	997.97	54.05	20.4
2/11/2020	12:48:36	997.96	54.045	20.4
2/11/2020	12:48:38	997.96	54.045	20.4
2/11/2020	12:48:40	997.96	54.045	20.4
2/11/2020	12:48:42	997.96	54.045	20.4
2/11/2020	12:48:44	997.96	54.045	20.4
2/11/2020	12:48:46	997.96	54.045	20.4
2/11/2020	12:48:48	997.96	54.045	20.4
2/11/2020	12:48:50	997.97	54.05	20.4
2/11/2020	12:48:52	997.96	54.045	20.4
2/11/2020	12:48:54	997.97	54.05	20.4
2/11/2020	12:48:56	997.97	54.05	20.4
2/11/2020	12:48:58	997.96	54.045	20.4
2/11/2020	12:49:00	997.97	54.05	20.4
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2/11/2020	12:49:06	997.96	54.045	20.4
2/11/2020	12:49:08	997.97	54.05	20.4
2/11/2020	12:49:10	997.96	54.045	20.4
2/11/2020	12:49:12	997.96	54.045	20.4
2/11/2020	12:49:14	997.96	54.045	20.4
2/11/2020	12:49:16	997.97	54.05	20.4
2/11/2020	12:49:18	997.96	54.045	20.4
2/11/2020	12:49:20	997.96	54.045	20.4
2/11/2020	12:49:22	997.96	54.045	20.4
2/11/2020	12:49:24	997.96	54.045	20.4
2/11/2020	12:49:26	997.96	54.045	20.4
2/11/2020	12:49:28	997.96	54.04	20.4
2/11/2020	12:49:30	997.96	54.04	20.4
2/11/2020	12:49:32	997.96	54.045	20.4
2/11/2020	12:49:34	997.96	54.045	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:49:42	997.96	54.045	20.4
2/11/2020	12:49:44	997.96	54.04	20.4
2/11/2020	12:49:46	997.96	54.045	20.4
2/11/2020	12:49:48	997.96	54.045	20.4
2/11/2020	12:49:50	997.96	54.045	20.4
2/11/2020	12:49:52	997.96	54.045	20.4
2/11/2020	12:49:54	997.96	54.04	20.4
2/11/2020	12:49:56	997.96	54.04	20.4
2/11/2020	12:49:58	997.96	54.04	20.4
2/11/2020	12:50:00	997.96	54.04	20.4
2/11/2020	12:50:02	997.96	54.04	20.4
2/11/2020	12:50:04	997.96	54.04	20.4
2/11/2020	12:50:06	997.96	54.04	20.4
2/11/2020	12:50:08	997.96	54.04	20.4
2/11/2020	12:50:10	997.96	54.04	20.4
2/11/2020	12:50:12	997.96	54.04	20.4
2/11/2020	12:50:14	997.97	54.05	20.4
2/11/2020	12:50:16	997.96	54.045	20.4
2/11/2020	12:50:18	997.96	54.045	20.4
2/11/2020	12:50:20	997.97	54.05	20.4
2/11/2020	12:50:22	997.98	54.06	20.4
2/11/2020	12:50:24	997.98	54.06	20.4
2/11/2020	12:50:26	997.98	54.06	20.4
2/11/2020	12:50:28	997.98	54.065	20.4
2/11/2020	12:50:30	997.98	54.065	20.4
2/11/2020	12:50:32	997.98	54.065	20.4
2/11/2020	12:50:34	997.99	54.07	20.4
2/11/2020	12:50:36	997.99	54.07	20.4
2/11/2020	12:50:38	997.98	54.065	20.4
2/11/2020	12:50:40	997.99	54.075	20.4
2/11/2020	12:50:42	997.98	54.065	20.4
2/11/2020	12:50:44	997.98	54.065	20.4
2/11/2020	12:50:46	997.99	54.07	20.4
2/11/2020	12:50:48	997.99	54.07	20.4
2/11/2020	12:50:50	997.99	54.07	20.4
2/11/2020	12:50:52	997.98	54.065	20.4
2/11/2020	12:50:54	997.98	54.065	20.4
2/11/2020	12:50:56	997.98	54.065	20.4
2/11/2020	12:50:58	997.99	54.07	20.4
2/11/2020	12:51:00	997.98	54.065	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:51:10	997.99	54.07	20.4
2/11/2020	12:51:12	997.98	54.065	20.4
2/11/2020	12:51:14	997.98	54.065	20.4
2/11/2020	12:51:16	997.99	54.07	20.4
2/11/2020	12:51:18	997.99	54.07	20.4
2/11/2020	12:51:20	997.98	54.065	20.4
2/11/2020	12:51:22	997.99	54.07	20.4
2/11/2020	12:51:24	997.99	54.07	20.4
2/11/2020	12:51:26	997.99	54.075	20.4
2/11/2020	12:51:28	997.99	54.075	20.4
2/11/2020	12:51:30	998.00	54.08	20.4
2/11/2020	12:51:32	998.00	54.08	20.4
2/11/2020	12:51:34	998.00	54.085	20.4
2/11/2020	12:51:36	998.00	54.08	20.4
2/11/2020	12:51:38	998.00	54.085	20.4
2/11/2020	12:51:40	998.00	54.085	20.4
2/11/2020	12:51:42	998.00	54.085	20.4
2/11/2020	12:51:44	998.00	54.085	20.4
2/11/2020	12:51:46	998.00	54.085	20.4
2/11/2020	12:51:48	998.00	54.085	20.4
2/11/2020	12:51:50	998.00	54.085	20.4
2/11/2020	12:51:52	998.00	54.085	20.4
2/11/2020	12:51:54	998.00	54.085	20.4
2/11/2020	12:51:56	998.00	54.085	20.4
2/11/2020	12:51:58	998.00	54.085	20.4
2/11/2020	12:52:00	998.01	54.09	20.4
2/11/2020	12:52:02	998.00	54.085	20.4
2/11/2020	12:52:04	998.55	54.636	20.4
2/11/2020	12:52:06	999.01	55.093	20.4
2/11/2020	12:52:08	999.32	55.403	20.4
2/11/2020	12:52:10	999.48	55.561	20.4
2/11/2020	12:52:12	999.50	55.586	20.4
2/11/2020	12:52:14	999.41	55.492	20.4
2/11/2020	12:52:16	999.26	55.345	20.4
2/11/2020	12:52:18	999.17	55.251	20.4
2/11/2020	12:52:20	999.10	55.182	20.4
2/11/2020	12:52:22	999.03	55.118	20.4
2/11/2020	12:52:24	998.98	55.064	20.4
2/11/2020	12:52:26	998.94	55.029	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:52:36	998.86	54.941	20.4
2/11/2020	12:52:38	998.85	54.936	20.4
2/11/2020	12:52:40	998.85	54.931	20.4
2/11/2020	12:52:42	998.84	54.926	20.4
2/11/2020	12:52:44	998.84	54.926	20.4
2/11/2020	12:52:46	998.84	54.926	20.4
2/11/2020	12:52:48	998.84	54.926	20.4
2/11/2020	12:52:50	999.02	55.108	20.4
2/11/2020	12:52:52	998.44	54.528	20.4
2/11/2020	12:52:54	998.38	54.464	20.4
2/11/2020	12:52:56	998.34	54.424	20.4
2/11/2020	12:52:58	998.01	54.095	20.4
2/11/2020	12:53:00	998.32	54.4	20.4
2/11/2020	12:53:02	998.47	54.557	20.4
2/11/2020	12:53:04	998.57	54.655	20.4
2/11/2020	12:53:06	998.64	54.724	20.4
2/11/2020	12:53:08	998.65	54.734	20.4
2/11/2020	12:53:10	998.32	54.404	20.4
2/11/2020	12:53:12	998.48	54.562	20.4
2/11/2020	12:53:14	998.78	54.862	20.4
2/11/2020	12:53:16	998.79	54.877	20.4
2/11/2020	12:53:18	998.80	54.887	20.4
2/11/2020	12:53:20	998.81	54.897	20.4
2/11/2020	12:53:22	998.82	54.902	20.4
2/11/2020	12:53:24	998.82	54.907	20.4
2/11/2020	12:53:26	998.82	54.907	20.4
2/11/2020	12:53:28	998.83	54.911	20.4
2/11/2020	12:53:30	998.83	54.911	20.4
2/11/2020	12:53:32	998.83	54.911	20.4
2/11/2020	12:53:34	998.84	54.921	20.4
2/11/2020	12:53:36	998.84	54.921	20.4
2/11/2020	12:53:38	998.84	54.921	20.4
2/11/2020	12:53:40	998.84	54.921	20.4
2/11/2020	12:53:42	998.84	54.921	20.4
2/11/2020	12:53:44	998.84	54.926	20.4
2/11/2020	12:53:46	998.84	54.926	20.4
2/11/2020	12:53:48	998.84	54.926	20.4
2/11/2020	12:53:50	998.84	54.926	20.4
2/11/2020	12:53:52	998.84	54.926	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:54:00	998.85	54.931	20.4
2/11/2020	12:54:02	998.85	54.931	20.4
2/11/2020	12:54:04	998.85	54.931	20.4
2/11/2020	12:54:06	998.85	54.931	20.4
2/11/2020	12:54:08	998.85	54.936	20.4
2/11/2020	12:54:10	998.85	54.936	20.4
2/11/2020	12:54:12	998.85	54.936	20.4
2/11/2020	12:54:14	998.85	54.936	20.4
2/11/2020	12:54:16	998.85	54.936	20.4
2/11/2020	12:54:18	998.85	54.936	20.4
2/11/2020	12:54:20	998.85	54.936	20.4
2/11/2020	12:54:22	998.85	54.936	20.4
2/11/2020	12:54:24	998.85	54.936	20.4
2/11/2020	12:54:26	998.85	54.936	20.4
2/11/2020	12:54:28	998.86	54.941	20.4
2/11/2020	12:54:30	998.85	54.936	20.4
2/11/2020	12:54:32	998.86	54.941	20.4
2/11/2020	12:54:34	998.86	54.941	20.4
2/11/2020	12:54:36	998.86	54.941	20.4
2/11/2020	12:54:38	998.86	54.946	20.4
2/11/2020	12:54:40	998.86	54.941	20.4
2/11/2020	12:54:42	998.86	54.941	20.4
2/11/2020	12:54:44	998.86	54.946	20.4
2/11/2020	12:54:46	998.86	54.941	20.4
2/11/2020	12:54:48	998.85	54.936	20.4
2/11/2020	12:54:50	998.86	54.941	20.4
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2/11/2020	12:55:08	998.86	54.946	20.4
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2/11/2020	12:55:18	998.86	54.946	20.4

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2/11/2020	12:55:32	998.87	54.951	20.4
2/11/2020	12:55:34	998.86	54.946	20.4
2/11/2020	12:55:36	998.87	54.951	20.4
2/11/2020	12:55:38	998.86	54.946	20.4
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2/11/2020	12:55:46	998.87	54.951	20.4
2/11/2020	12:55:48	998.87	54.951	20.4
2/11/2020	12:55:50	998.87	54.951	20.4
2/11/2020	12:55:52	998.87	54.951	20.4
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2/11/2020	12:56:04	998.87	54.951	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:57:04	998.88	54.961	20.4
2/11/2020	12:57:06	998.87	54.956	20.4
2/11/2020	12:57:08	998.87	54.956	20.4
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2/11/2020	12:57:36	998.87	54.956	20.4
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2/11/2020	12:58:00	998.88	54.961	20.4
2/11/2020	12:58:02	998.87	54.956	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:58:20	998.88	54.961	20.4
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2/11/2020	12:58:24	998.88	54.961	20.4
2/11/2020	12:58:26	998.88	54.961	20.4
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2/11/2020	12:58:34	998.88	54.961	20.4
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2/11/2020	12:58:38	998.88	54.966	20.4
2/11/2020	12:58:40	998.88	54.961	20.4
2/11/2020	12:58:42	998.88	54.966	20.4
2/11/2020	12:58:44	998.88	54.961	20.4
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2/11/2020	12:59:12	998.88	54.966	20.4
2/11/2020	12:59:14	998.88	54.966	20.4
2/11/2020	12:59:16	998.88	54.966	20.4
2/11/2020	12:59:18	998.88	54.966	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	12:59:54	998.88	54.961	20.4
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2/11/2020	12:59:58	998.88	54.961	20.4
2/11/2020	13:00:00	998.88	54.961	20.4
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2/11/2020	13:00:08	998.88	54.961	20.4
2/11/2020	13:00:10	998.88	54.966	20.4
2/11/2020	13:00:12	998.88	54.966	20.4
2/11/2020	13:00:14	998.88	54.961	20.4
2/11/2020	13:00:16	998.88	54.961	20.4
2/11/2020	13:00:18	998.87	54.956	20.4
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2/11/2020	13:00:28	999.02	55.103	20.4
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2/11/2020	13:00:32	998.95	55.039	20.4
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2/11/2020	13:00:36	998.93	55.01	20.4
2/11/2020	13:00:38	998.92	55	20.4
2/11/2020	13:00:40	998.91	54.99	20.4
2/11/2020	13:00:42	998.90	54.985	20.4
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2/11/2020	13:00:52	998.96	55.049	20.4
2/11/2020	13:00:54	999.04	55.123	20.4
2/11/2020	13:00:56	999.23	55.31	20.4
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2/11/2020	13:01:02	998.92	55	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:01:20	998.90	54.98	20.4
2/11/2020	13:01:22	998.89	54.975	20.4
2/11/2020	13:01:24	998.79	54.877	20.4
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2/11/2020	13:01:32	998.89	54.975	20.4
2/11/2020	13:01:34	998.88	54.966	20.4
2/11/2020	13:01:36	998.88	54.966	20.4
2/11/2020	13:01:38	998.88	54.966	20.4
2/11/2020	13:01:40	998.88	54.966	20.4
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2/11/2020	13:01:44	998.88	54.961	20.4
2/11/2020	13:01:46	998.88	54.961	20.4
2/11/2020	13:01:48	998.88	54.961	20.4
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2/11/2020	13:02:08	998.87	54.956	20.4
2/11/2020	13:02:10	998.92	55	20.4
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2/11/2020	13:02:14	998.87	54.951	20.4
2/11/2020	13:02:16	998.88	54.961	20.4
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2/11/2020	13:02:20	998.88	54.961	20.4
2/11/2020	13:02:22	998.88	54.961	20.4
2/11/2020	13:02:24	998.87	54.956	20.4
2/11/2020	13:02:26	998.87	54.956	20.4
2/11/2020	13:02:28	998.88	54.961	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:02:42	998.88	54.961	20.4
2/11/2020	13:02:44	998.88	54.961	20.4
2/11/2020	13:02:46	998.87	54.956	20.4
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2/11/2020	13:02:52	998.88	54.961	20.4
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2/11/2020	13:03:08	998.88	54.961	20.4
2/11/2020	13:03:10	998.88	54.961	20.4
2/11/2020	13:03:12	998.88	54.961	20.4
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2/11/2020	13:03:16	998.88	54.961	20.4
2/11/2020	13:03:18	998.88	54.961	20.4
2/11/2020	13:03:20	998.88	54.961	20.4
2/11/2020	13:03:22	998.88	54.961	20.4
2/11/2020	13:03:24	998.88	54.961	20.4
2/11/2020	13:03:26	998.88	54.961	20.4
2/11/2020	13:03:28	998.88	54.961	20.4
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2/11/2020	13:03:34	998.88	54.961	20.4
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2/11/2020	13:03:40	998.89	54.971	20.4
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2/11/2020	13:03:46	998.89	54.971	20.4
2/11/2020	13:03:48	998.87	54.956	20.4
2/11/2020	13:03:50	998.87	54.956	20.4
2/11/2020	13:03:52	998.88	54.961	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:04:08	998.88	54.961	20.4
2/11/2020	13:04:10	998.88	54.961	20.4
2/11/2020	13:04:12	998.88	54.961	20.4
2/11/2020	13:04:14	998.88	54.961	20.4
2/11/2020	13:04:16	998.88	54.961	20.4
2/11/2020	13:04:18	998.88	54.961	20.4
2/11/2020	13:04:20	998.88	54.961	20.4
2/11/2020	13:04:22	998.88	54.966	20.4
2/11/2020	13:04:24	998.88	54.961	20.4
2/11/2020	13:04:26	998.88	54.966	20.4
2/11/2020	13:04:28	998.88	54.966	20.4
2/11/2020	13:04:30	998.88	54.966	20.4
2/11/2020	13:04:32	998.88	54.966	20.4
2/11/2020	13:04:34	998.88	54.961	20.4
2/11/2020	13:04:36	998.88	54.961	20.4
2/11/2020	13:04:38	998.88	54.966	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:05:36	998.88	54.966	20.4
2/11/2020	13:05:38	998.88	54.966	20.4
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2/11/2020	13:05:48	998.88	54.966	20.4
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2/11/2020	13:06:26	998.89	54.971	20.4
2/11/2020	13:06:28	998.89	54.971	20.4
2/11/2020	13:06:30	998.89	54.971	20.4
2/11/2020	13:06:32	998.89	54.971	20.4
2/11/2020	13:06:34	998.88	54.966	20.4
2/11/2020	13:06:36	998.89	54.971	20.4
2/11/2020	13:06:38	998.89	54.971	20.4
2/11/2020	13:06:40	998.89	54.971	20.4
2/11/2020	13:06:42	998.66	54.749	20.4
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2/11/2020	13:07:36	997.65	53.73	20.4
2/11/2020	13:07:38	997.64	53.721	20.4
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2/11/2020	13:07:50	997.63	53.711	20.4
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2/11/2020	13:08:00	997.59	53.671	20.4
2/11/2020	13:08:02	997.59	53.676	20.4
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2/11/2020	13:08:06	997.59	53.671	20.4
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2/11/2020	13:08:24	997.61	53.691	20.4
2/11/2020	13:08:26	997.60	53.681	20.4
2/11/2020	13:08:28	997.59	53.676	20.4
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2/11/2020	13:08:36	997.59	53.676	20.4
2/11/2020	13:08:38	997.60	53.686	20.4
2/11/2020	13:08:40	997.60	53.686	20.4
2/11/2020	13:08:42	997.60	53.686	20.4
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2/11/2020	13:09:00	997.65	53.73	20.4
2/11/2020	13:09:02	997.65	53.73	20.4
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2/11/2020	13:09:50	997.67	53.75	20.4
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2/11/2020	13:09:54	997.66	53.745	20.4
2/11/2020	13:09:56	997.66	53.74	20.4
2/11/2020	13:09:58	997.63	53.716	20.4
2/11/2020	13:10:00	997.62	53.701	20.4
2/11/2020	13:10:02	997.60	53.686	20.4
2/11/2020	13:10:04	997.57	53.657	20.4
2/11/2020	13:10:06	997.58	53.666	20.4
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2/11/2020	13:10:58	997.44	53.528	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:11:24	997.43	53.519	20.4
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2/11/2020	13:11:30	997.42	53.509	20.4
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2/11/2020	13:11:36	997.43	53.514	20.4
2/11/2020	13:11:38	997.42	53.509	20.4
2/11/2020	13:11:40	997.43	53.514	20.4
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2/11/2020	13:11:52	997.41	53.499	20.4
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2/11/2020	13:12:12	997.42	53.509	20.4
2/11/2020	13:12:14	997.40	53.489	20.4
2/11/2020	13:12:16	997.40	53.489	20.4
2/11/2020	13:12:18	997.41	53.494	20.4
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2/11/2020	13:12:24	997.41	53.494	20.4
2/11/2020	13:12:26	997.40	53.489	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:13:04	997.41	53.494	20.4
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2/11/2020	13:13:34	997.39	53.479	20.4
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2/11/2020	13:13:38	997.40	53.484	20.4
2/11/2020	13:13:40	997.40	53.484	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:14:12	997.40	53.484	20.4
2/11/2020	13:14:14	997.40	53.489	20.4
2/11/2020	13:14:16	997.40	53.484	20.4
2/11/2020	13:14:18	997.41	53.494	20.4
2/11/2020	13:14:20	997.40	53.489	20.4
2/11/2020	13:14:22	997.40	53.489	20.4
2/11/2020	13:14:24	997.40	53.489	20.4
2/11/2020	13:14:26	997.41	53.494	20.4
2/11/2020	13:14:28	997.40	53.484	20.4
2/11/2020	13:14:30	997.40	53.489	20.4
2/11/2020	13:14:32	997.40	53.484	20.4
2/11/2020	13:14:34	997.41	53.494	20.4
2/11/2020	13:14:36	997.40	53.489	20.4
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2/11/2020	13:14:42	997.40	53.489	20.4
2/11/2020	13:14:44	997.41	53.499	20.4
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2/11/2020	13:14:52	997.40	53.489	20.4
2/11/2020	13:14:54	997.41	53.494	20.4
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2/11/2020	13:14:58	997.40	53.484	20.4
2/11/2020	13:15:00	997.41	53.499	20.4
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2/11/2020	13:15:04	997.40	53.489	20.4
2/11/2020	13:15:06	997.40	53.489	20.4
2/11/2020	13:15:08	997.40	53.489	20.4
2/11/2020	13:15:10	997.41	53.499	20.4
2/11/2020	13:15:12	997.41	53.494	20.4
2/11/2020	13:15:14	997.41	53.494	20.4
2/11/2020	13:15:16	997.40	53.489	20.4
2/11/2020	13:15:18	997.41	53.494	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:15:36	997.40	53.489	20.4
2/11/2020	13:15:38	997.41	53.499	20.4
2/11/2020	13:15:40	997.40	53.484	20.4
2/11/2020	13:15:42	997.40	53.489	20.4
2/11/2020	13:15:44	997.41	53.494	20.4
2/11/2020	13:15:46	997.40	53.484	20.4
2/11/2020	13:15:48	997.40	53.489	20.4
2/11/2020	13:15:50	997.40	53.489	20.4
2/11/2020	13:15:52	997.40	53.484	20.4
2/11/2020	13:15:54	997.40	53.484	20.4
2/11/2020	13:15:56	997.40	53.484	20.4
2/11/2020	13:15:58	997.40	53.484	20.4
2/11/2020	13:16:00	997.41	53.494	20.4
2/11/2020	13:16:02	997.40	53.489	20.4
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2/11/2020	13:16:06	997.41	53.494	20.4
2/11/2020	13:16:08	997.41	53.499	20.4
2/11/2020	13:16:10	997.40	53.489	20.4
2/11/2020	13:16:12	997.40	53.484	20.4
2/11/2020	13:16:14	997.41	53.494	20.4
2/11/2020	13:16:16	997.40	53.484	20.4
2/11/2020	13:16:18	997.40	53.484	20.4
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2/11/2020	13:16:22	997.40	53.489	20.4
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2/11/2020	13:18:36	997.39	53.479	20.4
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2/11/2020	13:19:52	997.40	53.484	20.4
2/11/2020	13:19:54	997.39	53.479	20.4
2/11/2020	13:19:56	997.40	53.484	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:23:08	997.40	53.489	20.4
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2/11/2020	13:23:14	997.40	53.484	20.4
2/11/2020	13:23:16	997.40	53.484	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:27:20	997.38	53.46	20.4
2/11/2020	13:27:22	997.39	53.474	20.4
2/11/2020	13:27:24	997.39	53.47	20.4
2/11/2020	13:27:26	997.38	53.465	20.4
2/11/2020	13:27:28	997.39	53.474	20.4
2/11/2020	13:27:30	997.39	53.47	20.4
2/11/2020	13:27:32	997.39	53.474	20.4
2/11/2020	13:27:34	997.39	53.47	20.4
2/11/2020	13:27:36	997.38	53.46	20.4
2/11/2020	13:27:38	997.38	53.46	20.4
2/11/2020	13:27:40	997.38	53.465	20.4
2/11/2020	13:27:42	997.39	53.47	20.4
2/11/2020	13:27:44	997.38	53.46	20.4
2/11/2020	13:27:46	997.38	53.46	20.4
2/11/2020	13:27:48	997.38	53.46	20.4
2/11/2020	13:27:50	997.38	53.465	20.4
2/11/2020	13:27:52	997.38	53.465	20.4
2/11/2020	13:27:54	997.38	53.465	20.4
2/11/2020	13:27:56	997.38	53.46	20.4
2/11/2020	13:27:58	997.39	53.47	20.4
2/11/2020	13:28:00	997.39	53.47	20.4
2/11/2020	13:28:02	997.38	53.465	20.4
2/11/2020	13:28:04	997.39	53.474	20.4
2/11/2020	13:28:06	997.38	53.465	20.4
2/11/2020	13:28:08	997.37	53.455	20.4
2/11/2020	13:28:10	997.37	53.455	20.4
2/11/2020	13:28:12	997.37	53.455	20.4
2/11/2020	13:28:14	997.37	53.45	20.4
2/11/2020	13:28:16	997.38	53.46	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:28:24	997.37	53.45	20.4
2/11/2020	13:28:26	997.35	53.435	20.4
2/11/2020	13:28:28	997.37	53.45	20.4
2/11/2020	13:28:30	997.37	53.45	20.4
2/11/2020	13:28:32	997.37	53.45	20.4
2/11/2020	13:28:34	997.37	53.45	20.4
2/11/2020	13:28:36	997.37	53.45	20.4
2/11/2020	13:28:38	997.36	53.445	20.4
2/11/2020	13:28:40	997.37	53.455	20.4
2/11/2020	13:28:42	997.37	53.455	20.4
2/11/2020	13:28:44	997.36	53.44	20.4
2/11/2020	13:28:46	997.37	53.45	20.4
2/11/2020	13:28:48	997.37	53.45	20.4
2/11/2020	13:28:50	997.37	53.455	20.4
2/11/2020	13:28:52	997.36	53.44	20.4
2/11/2020	13:28:54	997.37	53.45	20.4
2/11/2020	13:28:56	997.37	53.455	20.4
2/11/2020	13:28:58	997.38	53.46	20.4
2/11/2020	13:29:00	997.37	53.455	20.4
2/11/2020	13:29:02	997.37	53.45	20.4
2/11/2020	13:29:04	997.37	53.455	20.4
2/11/2020	13:29:06	997.37	53.455	20.4
2/11/2020	13:29:08	997.37	53.45	20.4
2/11/2020	13:29:10	997.38	53.46	20.4
2/11/2020	13:29:12	997.37	53.455	20.4
2/11/2020	13:29:14	997.37	53.455	20.4
2/11/2020	13:29:16	997.37	53.45	20.4
2/11/2020	13:29:18	997.38	53.465	20.4
2/11/2020	13:29:20	997.37	53.45	20.4
2/11/2020	13:29:22	997.37	53.455	20.4
2/11/2020	13:29:24	997.37	53.45	20.4
2/11/2020	13:29:26	997.37	53.45	20.4
2/11/2020	13:29:28	997.37	53.455	20.4
2/11/2020	13:29:30	997.38	53.46	20.4
2/11/2020	13:29:32	997.37	53.455	20.4
2/11/2020	13:29:34	997.37	53.45	20.4
2/11/2020	13:29:36	997.37	53.455	20.4
2/11/2020	13:29:38	997.37	53.455	20.4
2/11/2020	13:29:40	997.37	53.455	20.4
2/11/2020	13:29:42	997.38	53.46	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:29:48	997.38	53.46	20.4
2/11/2020	13:29:50	997.36	53.445	20.4
2/11/2020	13:29:52	997.38	53.46	20.4
2/11/2020	13:29:54	997.37	53.455	20.4
2/11/2020	13:29:56	997.38	53.46	20.4
2/11/2020	13:29:58	997.37	53.45	20.4
2/11/2020	13:30:00	997.38	53.465	20.4
2/11/2020	13:30:02	997.37	53.455	20.4
2/11/2020	13:30:04	997.37	53.455	20.4
2/11/2020	13:30:06	997.38	53.46	20.4
2/11/2020	13:30:08	997.37	53.45	20.4
2/11/2020	13:30:10	997.37	53.455	20.4
2/11/2020	13:30:12	997.37	53.455	20.4
2/11/2020	13:30:14	997.37	53.45	20.4
2/11/2020	13:30:16	997.37	53.455	20.4
2/11/2020	13:30:18	997.38	53.465	20.4
2/11/2020	13:30:20	997.37	53.455	20.4
2/11/2020	13:30:22	997.37	53.455	20.4
2/11/2020	13:30:24	997.36	53.445	20.4
2/11/2020	13:30:26	997.38	53.46	20.4
2/11/2020	13:30:28	997.37	53.455	20.4
2/11/2020	13:30:30	997.37	53.455	20.4
2/11/2020	13:30:32	997.38	53.46	20.4
2/11/2020	13:30:34	997.37	53.455	20.4
2/11/2020	13:30:36	997.38	53.46	20.4
2/11/2020	13:30:38	997.38	53.46	20.4
2/11/2020	13:30:40	997.39	53.47	20.4
2/11/2020	13:30:42	997.37	53.455	20.4
2/11/2020	13:30:44	997.38	53.46	20.4
2/11/2020	13:30:46	997.38	53.46	20.4
2/11/2020	13:30:48	997.37	53.455	20.4
2/11/2020	13:30:50	997.38	53.46	20.4
2/11/2020	13:30:52	997.37	53.455	20.4
2/11/2020	13:30:54	997.39	53.47	20.4
2/11/2020	13:30:56	997.38	53.465	20.4
2/11/2020	13:30:58	997.38	53.46	20.4
2/11/2020	13:31:00	997.37	53.455	20.4
2/11/2020	13:31:02	997.38	53.465	20.4
2/11/2020	13:31:04	997.38	53.46	20.4
2/11/2020	13:31:06	997.37	53.455	20.4
2/11/2020	13:31:08	997.37	53.455	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:31:14	997.38	53.46	20.4
2/11/2020	13:31:16	997.37	53.45	20.4
2/11/2020	13:31:18	997.39	53.47	20.4
2/11/2020	13:31:20	997.40	53.484	20.4
2/11/2020	13:31:22	997.38	53.465	20.4
2/11/2020	13:31:24	997.40	53.484	20.4
2/11/2020	13:31:26	997.39	53.474	20.4
2/11/2020	13:31:28	997.38	53.465	20.4
2/11/2020	13:31:30	997.38	53.465	20.4
2/11/2020	13:31:32	997.37	53.45	20.4
2/11/2020	13:31:34	997.37	53.45	20.4
2/11/2020	13:31:36	997.36	53.445	20.4
2/11/2020	13:31:38	997.36	53.445	20.4
2/11/2020	13:31:40	997.36	53.445	20.4
2/11/2020	13:31:42	997.37	53.45	20.4
2/11/2020	13:31:44	997.37	53.45	20.4
2/11/2020	13:31:46	997.36	53.44	20.4
2/11/2020	13:31:48	997.37	53.45	20.4
2/11/2020	13:31:50	997.36	53.445	20.4
2/11/2020	13:31:52	997.36	53.445	20.4
2/11/2020	13:31:54	997.37	53.455	20.4
2/11/2020	13:31:56	997.37	53.45	20.4
2/11/2020	13:31:58	997.38	53.46	20.4
2/11/2020	13:32:00	997.37	53.455	20.4
2/11/2020	13:32:02	997.38	53.46	20.4
2/11/2020	13:32:04	997.37	53.455	20.4
2/11/2020	13:32:06	997.36	53.445	20.4
2/11/2020	13:32:08	997.37	53.455	20.4
2/11/2020	13:32:10	997.37	53.455	20.4
2/11/2020	13:32:12	997.37	53.455	20.4
2/11/2020	13:32:14	997.37	53.455	20.4
2/11/2020	13:32:16	997.38	53.465	20.4
2/11/2020	13:32:18	997.38	53.46	20.4
2/11/2020	13:32:20	997.38	53.46	20.4
2/11/2020	13:32:22	997.37	53.45	20.4
2/11/2020	13:32:24	997.39	53.47	20.4
2/11/2020	13:32:26	997.36	53.445	20.4
2/11/2020	13:32:28	997.37	53.455	20.4
2/11/2020	13:32:30	997.36	53.445	20.4
2/11/2020	13:32:32	997.38	53.465	20.4
2/11/2020	13:32:34	997.38	53.46	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:32:42	997.37	53.45	20.4
2/11/2020	13:32:44	997.37	53.45	20.4
2/11/2020	13:32:46	997.38	53.46	20.4
2/11/2020	13:32:48	997.37	53.45	20.4
2/11/2020	13:32:50	997.38	53.46	20.4
2/11/2020	13:32:52	997.38	53.46	20.4
2/11/2020	13:32:54	997.37	53.45	20.4
2/11/2020	13:32:56	997.37	53.455	20.4
2/11/2020	13:32:58	997.37	53.45	20.4
2/11/2020	13:33:00	997.38	53.46	20.4
2/11/2020	13:33:02	997.37	53.455	20.4
2/11/2020	13:33:04	997.38	53.46	20.4
2/11/2020	13:33:06	997.37	53.455	20.4
2/11/2020	13:33:08	997.37	53.455	20.4
2/11/2020	13:33:10	997.37	53.45	20.4
2/11/2020	13:33:12	997.37	53.455	20.4
2/11/2020	13:33:14	997.37	53.455	20.4
2/11/2020	13:33:16	997.37	53.45	20.4
2/11/2020	13:33:18	997.37	53.45	20.4
2/11/2020	13:33:20	997.38	53.46	20.4
2/11/2020	13:33:22	997.37	53.45	20.4
2/11/2020	13:33:24	997.36	53.445	20.4
2/11/2020	13:33:26	997.37	53.455	20.4
2/11/2020	13:33:28	997.38	53.465	20.4
2/11/2020	13:33:30	997.37	53.45	20.4
2/11/2020	13:33:32	997.33	53.415	20.4
2/11/2020	13:33:34	997.32	53.401	20.4
2/11/2020	13:33:36	997.29	53.376	20.4
2/11/2020	13:33:38	997.28	53.366	20.4
2/11/2020	13:33:40	997.27	53.351	20.4
2/11/2020	13:33:42	997.27	53.351	20.4
2/11/2020	13:33:44	997.26	53.341	20.4
2/11/2020	13:33:46	997.25	53.337	20.4
2/11/2020	13:33:48	997.25	53.337	20.4
2/11/2020	13:33:50	997.24	53.327	20.4
2/11/2020	13:33:52	997.24	53.327	20.4
2/11/2020	13:33:54	997.24	53.327	20.4
2/11/2020	13:33:56	997.24	53.322	20.4
2/11/2020	13:33:58	997.24	53.327	20.4
2/11/2020	13:34:00	997.24	53.327	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:34:08	997.24	53.322	20.4
2/11/2020	13:34:10	997.23	53.312	20.4
2/11/2020	13:34:12	997.23	53.317	20.4
2/11/2020	13:34:14	997.23	53.312	20.4
2/11/2020	13:34:16	997.24	53.322	20.4
2/11/2020	13:34:18	997.24	53.322	20.4
2/11/2020	13:34:20	997.24	53.322	20.4
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2/11/2020	13:34:24	997.24	53.322	20.4
2/11/2020	13:34:26	997.24	53.322	20.4
2/11/2020	13:34:28	997.24	53.322	20.4
2/11/2020	13:34:30	997.24	53.322	20.4
2/11/2020	13:34:32	997.25	53.332	20.4
2/11/2020	13:34:34	997.24	53.322	20.4
2/11/2020	13:34:36	997.25	53.332	20.4
2/11/2020	13:34:38	997.23	53.317	20.4
2/11/2020	13:34:40	997.25	53.332	20.4
2/11/2020	13:34:42	997.25	53.332	20.4
2/11/2020	13:34:44	997.24	53.327	20.4
2/11/2020	13:34:46	997.24	53.322	20.4
2/11/2020	13:34:48	997.23	53.317	20.4
2/11/2020	13:34:50	997.24	53.322	20.4
2/11/2020	13:34:52	997.24	53.327	20.4
2/11/2020	13:34:54	997.24	53.327	20.4
2/11/2020	13:34:56	997.24	53.322	20.4
2/11/2020	13:34:58	997.26	53.341	20.4
2/11/2020	13:35:00	997.23	53.317	20.4
2/11/2020	13:35:02	997.24	53.327	20.4
2/11/2020	13:35:04	997.25	53.332	20.4
2/11/2020	13:35:06	997.25	53.332	20.4
2/11/2020	13:35:08	997.24	53.322	20.4
2/11/2020	13:35:10	997.23	53.317	20.4
2/11/2020	13:35:12	997.24	53.322	20.4
2/11/2020	13:35:14	997.24	53.322	20.4
2/11/2020	13:35:16	997.25	53.332	20.4
2/11/2020	13:35:18	997.23	53.317	20.4
2/11/2020	13:35:20	997.24	53.322	20.4
2/11/2020	13:35:22	997.24	53.327	20.4
2/11/2020	13:35:24	997.25	53.337	20.4
2/11/2020	13:35:26	997.25	53.332	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:35:34	997.24	53.327	20.4
2/11/2020	13:35:36	997.23	53.317	20.4
2/11/2020	13:35:38	997.24	53.327	20.4
2/11/2020	13:35:40	997.25	53.337	20.4
2/11/2020	13:35:42	997.25	53.337	20.4
2/11/2020	13:35:44	997.25	53.337	20.4
2/11/2020	13:35:46	997.24	53.322	20.4
2/11/2020	13:35:48	997.24	53.327	20.4
2/11/2020	13:35:50	997.25	53.337	20.4
2/11/2020	13:35:52	997.24	53.322	20.4
2/11/2020	13:35:54	997.25	53.332	20.4
2/11/2020	13:35:56	997.24	53.327	20.4
2/11/2020	13:35:58	997.24	53.327	20.4
2/11/2020	13:36:00	997.25	53.332	20.4
2/11/2020	13:36:02	997.24	53.322	20.4
2/11/2020	13:36:04	997.24	53.327	20.4
2/11/2020	13:36:06	997.25	53.332	20.4
2/11/2020	13:36:08	997.25	53.337	20.4
2/11/2020	13:36:10	997.25	53.332	20.4
2/11/2020	13:36:12	997.25	53.332	20.4
2/11/2020	13:36:14	997.25	53.337	20.4
2/11/2020	13:36:16	997.24	53.327	20.4
2/11/2020	13:36:18	997.25	53.332	20.4
2/11/2020	13:36:20	997.25	53.337	20.4
2/11/2020	13:36:22	997.25	53.337	20.4
2/11/2020	13:36:24	997.25	53.332	20.4
2/11/2020	13:36:26	997.26	53.341	20.4
2/11/2020	13:36:28	997.25	53.332	20.4
2/11/2020	13:36:30	997.25	53.332	20.4
2/11/2020	13:36:32	997.26	53.341	20.4
2/11/2020	13:36:34	997.25	53.337	20.4
2/11/2020	13:36:36	997.25	53.337	20.4
2/11/2020	13:36:38	997.25	53.332	20.4
2/11/2020	13:36:40	997.25	53.337	20.4
2/11/2020	13:36:42	997.25	53.332	20.4
2/11/2020	13:36:44	997.25	53.337	20.4
2/11/2020	13:36:46	997.26	53.341	20.4
2/11/2020	13:36:48	997.25	53.337	20.4
2/11/2020	13:36:50	997.25	53.337	20.4
2/11/2020	13:36:52	997.25	53.332	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:36:58	997.26	53.347	20.4
2/11/2020	13:37:00	997.25	53.337	20.4
2/11/2020	13:37:02	997.25	53.337	20.4
2/11/2020	13:37:04	997.25	53.337	20.4
2/11/2020	13:37:06	997.26	53.341	20.4
2/11/2020	13:37:08	997.26	53.347	20.4
2/11/2020	13:37:10	997.25	53.337	20.4
2/11/2020	13:37:12	997.25	53.332	20.4
2/11/2020	13:37:14	997.25	53.337	20.4
2/11/2020	13:37:16	997.26	53.347	20.4
2/11/2020	13:37:18	997.26	53.341	20.4
2/11/2020	13:37:20	997.25	53.337	20.4
2/11/2020	13:37:22	997.25	53.332	20.4
2/11/2020	13:37:24	997.25	53.337	20.4
2/11/2020	13:37:26	997.25	53.337	20.4
2/11/2020	13:37:28	997.26	53.347	20.4
2/11/2020	13:37:30	997.25	53.332	20.4
2/11/2020	13:37:32	997.24	53.327	20.4
2/11/2020	13:37:34	997.26	53.347	20.4
2/11/2020	13:37:36	997.25	53.337	20.4
2/11/2020	13:37:38	997.25	53.337	20.4
2/11/2020	13:37:40	997.26	53.347	20.4
2/11/2020	13:37:42	997.26	53.341	20.4
2/11/2020	13:37:44	997.26	53.341	20.4
2/11/2020	13:37:46	997.25	53.332	20.4
2/11/2020	13:37:48	997.26	53.341	20.4
2/11/2020	13:37:50	997.26	53.341	20.4
2/11/2020	13:37:52	997.26	53.341	20.4
2/11/2020	13:37:54	997.26	53.341	20.4
2/11/2020	13:37:56	997.25	53.337	20.4
2/11/2020	13:37:58	997.26	53.347	20.4
2/11/2020	13:38:00	997.25	53.337	20.4
2/11/2020	13:38:02	997.25	53.332	20.4
2/11/2020	13:38:04	997.25	53.337	20.4
2/11/2020	13:38:06	997.24	53.327	20.4
2/11/2020	13:38:08	997.24	53.327	20.4
2/11/2020	13:38:10	997.24	53.327	20.4
2/11/2020	13:38:12	997.24	53.327	20.4
2/11/2020	13:38:14	997.24	53.327	20.4
2/11/2020	13:38:16	997.25	53.337	20.4
2/11/2020	13:38:18	997.25	53.332	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:38:26	997.25	53.332	20.4
2/11/2020	13:38:28	997.24	53.327	20.4
2/11/2020	13:38:30	997.25	53.332	20.4
2/11/2020	13:38:32	997.25	53.337	20.4
2/11/2020	13:38:34	997.25	53.337	20.4
2/11/2020	13:38:36	997.24	53.322	20.4
2/11/2020	13:38:38	997.26	53.341	20.4
2/11/2020	13:38:40	997.26	53.341	20.4
2/11/2020	13:38:42	997.25	53.337	20.4
2/11/2020	13:38:44	997.25	53.332	20.4
2/11/2020	13:38:46	997.26	53.341	20.4
2/11/2020	13:38:48	997.26	53.341	20.4
2/11/2020	13:38:50	997.26	53.341	20.4
2/11/2020	13:38:52	997.26	53.347	20.4
2/11/2020	13:38:54	997.25	53.332	20.4
2/11/2020	13:38:56	997.26	53.347	20.4
2/11/2020	13:38:58	997.25	53.337	20.4
2/11/2020	13:39:00	997.25	53.337	20.4
2/11/2020	13:39:02	997.25	53.337	20.4
2/11/2020	13:39:04	997.24	53.327	20.4
2/11/2020	13:39:06	997.26	53.341	20.4
2/11/2020	13:39:08	997.26	53.347	20.4
2/11/2020	13:39:10	997.25	53.337	20.4
2/11/2020	13:39:12	997.25	53.332	20.4
2/11/2020	13:39:14	997.25	53.332	20.4
2/11/2020	13:39:16	997.26	53.341	20.4
2/11/2020	13:39:18	997.26	53.341	20.4
2/11/2020	13:39:20	997.26	53.341	20.4
2/11/2020	13:39:22	997.26	53.347	20.4
2/11/2020	13:39:24	997.25	53.337	20.4
2/11/2020	13:39:26	997.25	53.337	20.4
2/11/2020	13:39:28	997.25	53.337	20.4
2/11/2020	13:39:30	997.25	53.332	20.4
2/11/2020	13:39:32	997.25	53.332	20.4
2/11/2020	13:39:34	997.26	53.341	20.4
2/11/2020	13:39:36	997.26	53.341	20.4
2/11/2020	13:39:38	997.25	53.337	20.4
2/11/2020	13:39:40	997.26	53.347	20.4
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2/11/2020	13:39:44	997.26	53.341	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:39:54	997.27	53.351	20.4
2/11/2020	13:39:56	997.26	53.347	20.4
2/11/2020	13:39:58	997.27	53.351	20.4
2/11/2020	13:40:00	997.26	53.347	20.4
2/11/2020	13:40:02	997.27	53.351	20.4
2/11/2020	13:40:04	997.27	53.356	20.4
2/11/2020	13:40:06	997.28	53.361	20.4
2/11/2020	13:40:08	997.28	53.361	20.4
2/11/2020	13:40:10	997.27	53.356	20.4
2/11/2020	13:40:12	997.27	53.356	20.4
2/11/2020	13:40:14	997.26	53.347	20.4
2/11/2020	13:40:16	997.27	53.356	20.4
2/11/2020	13:40:18	997.27	53.351	20.4
2/11/2020	13:40:20	997.27	53.351	20.4
2/11/2020	13:40:22	997.27	53.356	20.4
2/11/2020	13:40:24	997.28	53.361	20.4
2/11/2020	13:40:26	997.27	53.356	20.4
2/11/2020	13:40:28	997.28	53.361	20.4
2/11/2020	13:40:30	997.27	53.351	20.4
2/11/2020	13:40:32	997.29	53.371	20.4
2/11/2020	13:40:34	997.28	53.361	20.4
2/11/2020	13:40:36	997.26	53.347	20.4
2/11/2020	13:40:38	997.28	53.361	20.4
2/11/2020	13:40:40	997.29	53.371	20.4
2/11/2020	13:40:42	997.28	53.366	20.4
2/11/2020	13:40:44	997.28	53.366	20.4
2/11/2020	13:40:46	997.27	53.356	20.4
2/11/2020	13:40:48	997.28	53.361	20.4
2/11/2020	13:40:50	997.28	53.366	20.4
2/11/2020	13:40:52	997.28	53.366	20.4
2/11/2020	13:40:54	997.29	53.371	20.4
2/11/2020	13:40:56	997.28	53.366	20.4
2/11/2020	13:40:58	997.28	53.366	20.4
2/11/2020	13:41:00	997.28	53.366	20.4
2/11/2020	13:41:02	997.29	53.371	20.4
2/11/2020	13:41:04	997.28	53.361	20.4
2/11/2020	13:41:06	997.28	53.361	20.4
2/11/2020	13:41:08	997.28	53.361	20.4
2/11/2020	13:41:10	997.27	53.351	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:41:20	997.28	53.366	20.4
2/11/2020	13:41:22	997.28	53.366	20.4
2/11/2020	13:41:24	997.28	53.366	20.4
2/11/2020	13:41:26	997.29	53.376	20.4
2/11/2020	13:41:28	997.29	53.376	20.4
2/11/2020	13:41:30	997.29	53.371	20.4
2/11/2020	13:41:32	997.28	53.361	20.4
2/11/2020	13:41:34	997.28	53.361	20.4
2/11/2020	13:41:36	997.28	53.361	20.4
2/11/2020	13:41:38	997.29	53.371	20.4
2/11/2020	13:41:40	997.29	53.371	20.4
2/11/2020	13:41:42	997.30	53.381	20.4
2/11/2020	13:41:44	997.27	53.351	20.4
2/11/2020	13:41:46	997.28	53.361	20.4
2/11/2020	13:41:48	997.29	53.371	20.4
2/11/2020	13:41:50	997.28	53.366	20.4
2/11/2020	13:41:52	997.28	53.366	20.4
2/11/2020	13:41:54	997.30	53.381	20.4
2/11/2020	13:41:56	997.29	53.371	20.4
2/11/2020	13:41:58	997.29	53.376	20.4
2/11/2020	13:42:00	997.29	53.376	20.4
2/11/2020	13:42:02	997.31	53.396	20.4
2/11/2020	13:42:04	997.30	53.386	20.4
2/11/2020	13:42:06	997.30	53.386	20.4
2/11/2020	13:42:08	997.27	53.356	20.4
2/11/2020	13:42:10	997.28	53.361	20.4
2/11/2020	13:42:12	997.28	53.366	20.4
2/11/2020	13:42:14	997.27	53.356	20.4
2/11/2020	13:42:16	997.29	53.371	20.4
2/11/2020	13:42:18	997.28	53.366	20.4
2/11/2020	13:42:20	997.28	53.366	20.4
2/11/2020	13:42:22	997.29	53.376	20.4
2/11/2020	13:42:24	997.30	53.386	20.4
2/11/2020	13:42:26	997.28	53.366	20.4
2/11/2020	13:42:28	997.30	53.381	20.4
2/11/2020	13:42:30	997.29	53.371	20.4
2/11/2020	13:42:32	997.29	53.376	20.4
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2/11/2020	13:42:36	997.30	53.386	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:42:46	997.29	53.376	20.4
2/11/2020	13:42:48	997.29	53.376	20.4
2/11/2020	13:42:50	997.28	53.366	20.4
2/11/2020	13:42:52	997.28	53.361	20.4
2/11/2020	13:42:54	997.27	53.351	20.4
2/11/2020	13:42:56	997.27	53.351	20.4
2/11/2020	13:42:58	997.26	53.347	20.4
2/11/2020	13:43:00	997.26	53.341	20.4
2/11/2020	13:43:02	997.27	53.351	20.4
2/11/2020	13:43:04	997.26	53.347	20.4
2/11/2020	13:43:06	997.27	53.351	20.4
2/11/2020	13:43:08	997.27	53.351	20.4
2/11/2020	13:43:10	997.26	53.347	20.4
2/11/2020	13:43:12	997.27	53.356	20.4
2/11/2020	13:43:14	997.26	53.341	20.4
2/11/2020	13:43:16	997.27	53.351	20.4
2/11/2020	13:43:18	997.27	53.351	20.4
2/11/2020	13:43:20	997.26	53.347	20.4
2/11/2020	13:43:22	997.27	53.351	20.4
2/11/2020	13:43:24	997.28	53.366	20.4
2/11/2020	13:43:26	997.28	53.366	20.4
2/11/2020	13:43:28	997.30	53.381	20.4
2/11/2020	13:43:30	997.32	53.405	20.4
2/11/2020	13:43:32	997.33	53.41	20.4
2/11/2020	13:43:34	997.30	53.386	20.4
2/11/2020	13:43:36	997.35	53.43	20.4
2/11/2020	13:43:38	997.34	53.425	20.4
2/11/2020	13:43:40	997.36	53.44	20.4
2/11/2020	13:43:42	997.37	53.455	20.4
2/11/2020	13:43:44	997.38	53.46	20.4
2/11/2020	13:43:46	997.34	53.425	20.4
2/11/2020	13:43:48	997.32	53.401	20.4
2/11/2020	13:43:50	997.31	53.396	20.4
2/11/2020	13:43:52	997.29	53.376	20.4
2/11/2020	13:43:54	997.30	53.386	20.4
2/11/2020	13:43:56	997.29	53.376	20.4
2/11/2020	13:43:58	997.29	53.371	20.4
2/11/2020	13:44:00	997.27	53.351	20.4
2/11/2020	13:44:02	997.28	53.366	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:44:14	997.29	53.376	20.4
2/11/2020	13:44:16	997.29	53.376	20.4
2/11/2020	13:44:18	997.30	53.386	20.4
2/11/2020	13:44:20	997.28	53.361	20.4
2/11/2020	13:44:22	997.28	53.366	20.4
2/11/2020	13:44:24	997.28	53.361	20.4
2/11/2020	13:44:26	997.28	53.366	20.4
2/11/2020	13:44:28	997.27	53.356	20.4
2/11/2020	13:44:30	997.28	53.361	20.4
2/11/2020	13:44:32	997.29	53.376	20.4
2/11/2020	13:44:34	997.29	53.376	20.4
2/11/2020	13:44:36	997.31	53.391	20.4
2/11/2020	13:44:38	997.29	53.376	20.4
2/11/2020	13:44:40	997.30	53.386	20.4
2/11/2020	13:44:42	997.30	53.386	20.4
2/11/2020	13:44:44	997.31	53.391	20.4
2/11/2020	13:44:46	997.31	53.396	20.4
2/11/2020	13:44:48	997.32	53.401	20.4
2/11/2020	13:44:50	997.32	53.401	20.4
2/11/2020	13:44:52	997.32	53.401	20.4
2/11/2020	13:44:54	997.32	53.401	20.4
2/11/2020	13:44:56	997.32	53.401	20.4
2/11/2020	13:44:58	997.31	53.391	20.4
2/11/2020	13:45:00	997.32	53.405	20.4
2/11/2020	13:45:02	997.32	53.401	20.4
2/11/2020	13:45:04	997.32	53.401	20.4
2/11/2020	13:45:06	997.33	53.415	20.4
2/11/2020	13:45:08	997.32	53.401	20.4
2/11/2020	13:45:10	997.32	53.405	20.4
2/11/2020	13:45:12	997.32	53.401	20.4
2/11/2020	13:45:14	997.33	53.41	20.4
2/11/2020	13:45:16	997.32	53.401	20.4
2/11/2020	13:45:18	997.32	53.405	20.4
2/11/2020	13:45:20	997.33	53.41	20.4
2/11/2020	13:45:22	997.32	53.405	20.4
2/11/2020	13:45:24	997.33	53.415	20.4
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Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:45:38	997.32	53.405	20.4
2/11/2020	13:45:40	997.32	53.405	20.4
2/11/2020	13:45:42	997.34	53.42	20.4
2/11/2020	13:45:44	997.33	53.41	20.4
2/11/2020	13:45:46	997.33	53.41	20.4
2/11/2020	13:45:48	997.31	53.391	20.4
2/11/2020	13:45:50	997.33	53.41	20.4
2/11/2020	13:45:52	997.32	53.401	20.4
2/11/2020	13:45:54	997.33	53.41	20.4
2/11/2020	13:45:56	997.29	53.376	20.4
2/11/2020	13:45:58	997.30	53.386	20.4
2/11/2020	13:46:00	997.30	53.381	20.4
2/11/2020	13:46:02	997.30	53.386	20.4
2/11/2020	13:46:04	997.30	53.381	20.4
2/11/2020	13:46:06	997.31	53.391	20.4
2/11/2020	13:46:08	997.30	53.386	20.4
2/11/2020	13:46:10	997.30	53.381	20.4
2/11/2020	13:46:12	997.30	53.386	20.4
2/11/2020	13:46:14	997.31	53.391	20.4
2/11/2020	13:46:16	997.31	53.391	20.4
2/11/2020	13:46:18	997.30	53.386	20.4
2/11/2020	13:46:20	997.31	53.396	20.4
2/11/2020	13:46:22	997.31	53.396	20.4
2/11/2020	13:46:24	997.31	53.396	20.4
2/11/2020	13:46:26	997.31	53.391	20.4
2/11/2020	13:46:28	997.31	53.396	20.4
2/11/2020	13:46:30	997.32	53.401	20.4
2/11/2020	13:46:32	997.31	53.391	20.4
2/11/2020	13:46:34	997.31	53.391	20.4
2/11/2020	13:46:36	997.30	53.386	20.4
2/11/2020	13:46:38	997.31	53.396	20.4
2/11/2020	13:46:40	997.31	53.391	20.4
2/11/2020	13:46:42	997.32	53.401	20.4
2/11/2020	13:46:44	997.31	53.396	20.4
2/11/2020	13:46:46	997.31	53.396	20.4
2/11/2020	13:46:48	997.31	53.391	20.4
2/11/2020	13:46:50	997.31	53.396	20.4
2/11/2020	13:46:52	997.30	53.386	20.4
2/11/2020	13:46:54	997.31	53.396	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:47:04	997.32	53.401	20.4
2/11/2020	13:47:06	997.32	53.405	20.4
2/11/2020	13:47:08	997.32	53.401	20.4
2/11/2020	13:47:10	997.32	53.405	20.4
2/11/2020	13:47:12	997.31	53.396	20.4
2/11/2020	13:47:14	997.31	53.396	20.4
2/11/2020	13:47:16	997.31	53.396	20.4
2/11/2020	13:47:18	997.32	53.401	20.4
2/11/2020	13:47:20	997.31	53.391	20.4
2/11/2020	13:47:22	997.32	53.405	20.4
2/11/2020	13:47:24	997.32	53.405	20.4
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2/11/2020	13:47:28	997.31	53.396	20.4
2/11/2020	13:47:30	997.32	53.401	20.4
2/11/2020	13:47:32	997.31	53.396	20.4
2/11/2020	13:47:34	997.32	53.401	20.4
2/11/2020	13:47:36	997.32	53.401	20.4
2/11/2020	13:47:38	997.31	53.391	20.4
2/11/2020	13:47:40	997.31	53.391	20.4
2/11/2020	13:47:42	997.32	53.401	20.4
2/11/2020	13:47:44	997.31	53.396	20.4
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2/11/2020	13:47:48	997.31	53.391	20.4
2/11/2020	13:47:50	997.31	53.396	20.4
2/11/2020	13:47:52	997.31	53.396	20.4
2/11/2020	13:47:54	997.32	53.405	20.4
2/11/2020	13:47:56	997.32	53.405	20.4
2/11/2020	13:47:58	997.31	53.396	20.4
2/11/2020	13:48:00	997.32	53.401	20.4
2/11/2020	13:48:02	997.33	53.41	20.4
2/11/2020	13:48:04	997.32	53.405	20.4
2/11/2020	13:48:06	997.32	53.405	20.4
2/11/2020	13:48:08	997.32	53.401	20.4
2/11/2020	13:48:10	997.33	53.41	20.4
2/11/2020	13:48:12	997.32	53.401	20.4
2/11/2020	13:48:14	997.33	53.415	20.4
2/11/2020	13:48:16	997.33	53.415	20.4
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2/11/2020	13:48:20	997.32	53.405	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:48:30	997.33	53.415	20.4
2/11/2020	13:48:32	997.33	53.41	20.4
2/11/2020	13:48:34	997.32	53.405	20.4
2/11/2020	13:48:36	997.33	53.41	20.4
2/11/2020	13:48:38	997.33	53.415	20.4
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2/11/2020	13:48:42	997.32	53.401	20.4
2/11/2020	13:48:44	997.32	53.405	20.4
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2/11/2020	13:49:06	997.32	53.401	20.4
2/11/2020	13:49:08	997.32	53.401	20.4
2/11/2020	13:49:10	997.33	53.41	20.4
2/11/2020	13:49:12	997.31	53.396	20.4
2/11/2020	13:49:14	997.32	53.405	20.4
2/11/2020	13:49:16	997.31	53.396	20.4
2/11/2020	13:49:18	997.32	53.405	20.4
2/11/2020	13:49:20	997.31	53.396	20.4
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2/11/2020	13:49:24	997.31	53.396	20.4
2/11/2020	13:49:26	997.31	53.391	20.4
2/11/2020	13:49:28	997.32	53.401	20.4
2/11/2020	13:49:30	997.32	53.401	20.4
2/11/2020	13:49:32	997.32	53.405	20.4
2/11/2020	13:49:34	997.33	53.41	20.4
2/11/2020	13:49:36	997.31	53.396	20.4
2/11/2020	13:49:38	997.32	53.405	20.4
2/11/2020	13:49:40	997.32	53.405	20.4
2/11/2020	13:49:42	997.32	53.405	20.4
2/11/2020	13:49:44	997.31	53.396	20.4
2/11/2020	13:49:46	997.32	53.401	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:49:56	997.33	53.41	20.4
2/11/2020	13:49:58	997.31	53.396	20.4
2/11/2020	13:50:00	997.32	53.405	20.4
2/11/2020	13:50:02	997.32	53.401	20.4
2/11/2020	13:50:04	997.32	53.401	20.4
2/11/2020	13:50:06	997.32	53.405	20.4
2/11/2020	13:50:08	997.32	53.405	20.4
2/11/2020	13:50:10	997.32	53.405	20.4
2/11/2020	13:50:12	997.32	53.401	20.4
2/11/2020	13:50:14	997.32	53.401	20.4
2/11/2020	13:50:16	997.32	53.401	20.4
2/11/2020	13:50:18	997.32	53.405	20.4
2/11/2020	13:50:20	997.32	53.401	20.4
2/11/2020	13:50:22	997.32	53.401	20.4
2/11/2020	13:50:24	997.33	53.41	20.4
2/11/2020	13:50:26	997.32	53.405	20.4
2/11/2020	13:50:28	997.32	53.401	20.4
2/11/2020	13:50:30	997.32	53.405	20.4
2/11/2020	13:50:32	997.32	53.405	20.4
2/11/2020	13:50:34	997.32	53.401	20.4
2/11/2020	13:50:36	997.33	53.41	20.4
2/11/2020	13:50:38	997.32	53.405	20.4
2/11/2020	13:50:40	997.31	53.396	20.4
2/11/2020	13:50:42	997.31	53.396	20.4
2/11/2020	13:50:44	997.32	53.401	20.4
2/11/2020	13:50:46	997.31	53.391	20.4
2/11/2020	13:50:48	997.32	53.401	20.4
2/11/2020	13:50:50	997.32	53.405	20.4
2/11/2020	13:50:52	997.32	53.401	20.4
2/11/2020	13:50:54	997.32	53.401	20.4
2/11/2020	13:50:56	997.32	53.405	20.4
2/11/2020	13:50:58	997.32	53.401	20.4
2/11/2020	13:51:00	997.31	53.396	20.4
2/11/2020	13:51:02	997.32	53.401	20.4
2/11/2020	13:51:04	997.32	53.405	20.4
2/11/2020	13:51:06	997.33	53.41	20.4
2/11/2020	13:51:08	997.31	53.396	20.4
2/11/2020	13:51:10	997.31	53.396	20.4
2/11/2020	13:51:12	997.32	53.401	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:51:20	997.31	53.396	20.4
2/11/2020	13:51:22	997.32	53.401	20.4
2/11/2020	13:51:24	997.32	53.401	20.4
2/11/2020	13:51:26	997.32	53.401	20.4
2/11/2020	13:51:28	997.32	53.405	20.4
2/11/2020	13:51:30	997.32	53.405	20.4
2/11/2020	13:51:32	997.33	53.41	20.4
2/11/2020	13:51:34	997.32	53.405	20.4
2/11/2020	13:51:36	997.34	53.42	20.4
2/11/2020	13:51:38	997.31	53.396	20.4
2/11/2020	13:51:40	997.32	53.405	20.4
2/11/2020	13:51:42	997.32	53.405	20.4
2/11/2020	13:51:44	997.31	53.396	20.4
2/11/2020	13:51:46	997.31	53.396	20.4
2/11/2020	13:51:48	997.31	53.396	20.4
2/11/2020	13:51:50	997.32	53.405	20.4
2/11/2020	13:51:52	997.31	53.391	20.4
2/11/2020	13:51:54	997.31	53.396	20.4
2/11/2020	13:51:56	997.31	53.396	20.4
2/11/2020	13:51:58	997.31	53.391	20.4
2/11/2020	13:52:00	997.30	53.386	20.4
2/11/2020	13:52:02	997.31	53.396	20.4
2/11/2020	13:52:04	997.32	53.401	20.4
2/11/2020	13:52:06	997.31	53.391	20.4
2/11/2020	13:52:08	997.30	53.386	20.4
2/11/2020	13:52:10	997.31	53.391	20.4
2/11/2020	13:52:12	997.31	53.391	20.4
2/11/2020	13:52:14	997.30	53.381	20.4
2/11/2020	13:52:16	997.31	53.391	20.4
2/11/2020	13:52:18	997.30	53.386	20.4
2/11/2020	13:52:20	997.31	53.391	20.4
2/11/2020	13:52:22	997.30	53.386	20.4
2/11/2020	13:52:24	997.31	53.391	20.4
2/11/2020	13:52:26	997.31	53.396	20.4
2/11/2020	13:52:28	997.31	53.391	20.4
2/11/2020	13:52:30	997.30	53.386	20.4
2/11/2020	13:52:32	997.31	53.396	20.4
2/11/2020	13:52:34	997.31	53.396	20.4
2/11/2020	13:52:36	997.32	53.405	20.4
2/11/2020	13:52:38	997.32	53.401	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:52:48	997.34	53.42	20.4
2/11/2020	13:52:50	997.31	53.391	20.4
2/11/2020	13:52:52	997.31	53.391	20.4
2/11/2020	13:52:54	997.31	53.396	20.4
2/11/2020	13:52:56	997.31	53.396	20.4
2/11/2020	13:52:58	997.30	53.386	20.4
2/11/2020	13:53:00	997.32	53.401	20.4
2/11/2020	13:53:02	997.32	53.401	20.4
2/11/2020	13:53:04	997.31	53.396	20.4
2/11/2020	13:53:06	997.32	53.401	20.4
2/11/2020	13:53:08	997.31	53.396	20.4
2/11/2020	13:53:10	997.31	53.391	20.4
2/11/2020	13:53:12	997.31	53.396	20.4
2/11/2020	13:53:14	997.31	53.391	20.4
2/11/2020	13:53:16	997.32	53.401	20.4
2/11/2020	13:53:18	997.32	53.401	20.4
2/11/2020	13:53:20	997.31	53.396	20.4
2/11/2020	13:53:22	997.32	53.401	20.4
2/11/2020	13:53:24	997.31	53.396	20.4
2/11/2020	13:53:26	997.30	53.386	20.4
2/11/2020	13:53:28	997.30	53.386	20.4
2/11/2020	13:53:30	997.31	53.391	20.4
2/11/2020	13:53:32	997.31	53.391	20.4
2/11/2020	13:53:34	997.31	53.391	20.4
2/11/2020	13:53:36	997.30	53.386	20.4
2/11/2020	13:53:38	997.32	53.401	20.4
2/11/2020	13:53:40	997.31	53.396	20.4
2/11/2020	13:53:42	997.31	53.391	20.4
2/11/2020	13:53:44	997.31	53.391	20.4
2/11/2020	13:53:46	997.32	53.401	20.4
2/11/2020	13:53:48	997.32	53.401	20.4
2/11/2020	13:53:50	997.31	53.396	20.4
2/11/2020	13:53:52	997.31	53.396	20.4
2/11/2020	13:53:54	997.33	53.41	20.4
2/11/2020	13:53:56	997.32	53.401	20.4
2/11/2020	13:53:58	997.31	53.391	20.4
2/11/2020	13:54:00	997.31	53.396	20.4
2/11/2020	13:54:02	997.33	53.41	20.4
2/11/2020	13:54:04	997.32	53.401	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:54:14	997.32	53.401	20.4
2/11/2020	13:54:16	997.32	53.405	20.4
2/11/2020	13:54:18	997.32	53.405	20.4
2/11/2020	13:54:20	997.33	53.41	20.4
2/11/2020	13:54:22	997.32	53.401	20.4
2/11/2020	13:54:24	997.32	53.401	20.4
2/11/2020	13:54:26	997.32	53.401	20.4
2/11/2020	13:54:28	997.32	53.401	20.4
2/11/2020	13:54:30	997.33	53.41	20.4
2/11/2020	13:54:32	997.32	53.401	20.4
2/11/2020	13:54:34	997.33	53.41	20.4
2/11/2020	13:54:36	997.32	53.405	20.4
2/11/2020	13:54:38	997.32	53.405	20.4
2/11/2020	13:54:40	997.32	53.405	20.4
2/11/2020	13:54:42	997.33	53.41	20.4
2/11/2020	13:54:44	997.32	53.405	20.4
2/11/2020	13:54:46	997.33	53.41	20.4
2/11/2020	13:54:48	997.32	53.401	20.4
2/11/2020	13:54:50	997.32	53.405	20.4
2/11/2020	13:54:52	997.33	53.41	20.4
2/11/2020	13:54:54	997.57	53.657	20.4
2/11/2020	13:54:56	998.15	54.237	20.4
2/11/2020	13:54:58	998.54	54.626	20.4
2/11/2020	13:55:00	998.72	54.808	20.4
2/11/2020	13:55:02	998.80	54.882	20.4
2/11/2020	13:55:04	998.75	54.833	20.4
2/11/2020	13:55:06	998.73	54.813	20.4
2/11/2020	13:55:08	998.69	54.774	20.4
2/11/2020	13:55:10	998.66	54.749	20.4
2/11/2020	13:55:12	998.65	54.739	20.4
2/11/2020	13:55:14	998.65	54.734	20.4
2/11/2020	13:55:16	998.64	54.729	20.4
2/11/2020	13:55:18	998.64	54.729	20.4
2/11/2020	13:55:20	998.65	54.734	20.4
2/11/2020	13:55:22	998.65	54.739	20.4
2/11/2020	13:55:24	998.65	54.739	20.4
2/11/2020	13:55:26	998.66	54.744	20.4
2/11/2020	13:55:28	998.66	54.749	20.4
2/11/2020	13:55:30	998.67	54.759	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:55:42	998.38	54.464	20.4
2/11/2020	13:55:44	998.68	54.764	20.4
2/11/2020	13:55:46	998.32	54.404	20.4
2/11/2020	13:55:48	998.64	54.729	20.4
2/11/2020	13:55:50	998.04	54.124	20.4
2/11/2020	13:55:52	998.21	54.291	20.4
2/11/2020	13:55:54	997.94	54.021	20.4
2/11/2020	13:55:56	998.11	54.198	20.4
2/11/2020	13:55:58	997.60	53.681	20.4
2/11/2020	13:56:00	997.84	53.922	20.4
2/11/2020	13:56:02	998.04	54.129	20.4
2/11/2020	13:56:04	998.60	54.68	20.4
2/11/2020	13:56:06	998.55	54.631	20.4
2/11/2020	13:56:08	998.51	54.597	20.4
2/11/2020	13:56:10	998.47	54.557	20.4
2/11/2020	13:56:12	998.32	54.4	20.4
2/11/2020	13:56:14	998.52	54.606	20.4
2/11/2020	13:56:16	998.49	54.572	20.4
2/11/2020	13:56:18	998.56	54.641	20.4
2/11/2020	13:56:20	998.64	54.72	20.4
2/11/2020	13:56:22	998.71	54.798	20.4
2/11/2020	13:56:24	998.67	54.754	20.4
2/11/2020	13:56:26	998.71	54.793	20.4
2/11/2020	13:56:28	998.70	54.788	20.4
2/11/2020	13:56:30	998.74	54.823	20.4
2/11/2020	13:56:32	998.74	54.823	20.4
2/11/2020	13:56:34	997.98	54.065	20.4
2/11/2020	13:56:36	994.27	50.354	20.4
2/11/2020	13:56:38	989.66	45.743	20.4
2/11/2020	13:56:40	985.58	41.668	20.4
2/11/2020	13:56:42	982.22	38.307	20.4
2/11/2020	13:56:44	978.05	34.139	20.4
2/11/2020	13:56:46	976.63	32.716	20.4
2/11/2020	13:56:48	976.64	32.722	20.4
2/11/2020	13:56:50	976.63	32.712	20.4
2/11/2020	13:56:52	976.63	32.712	20.4
2/11/2020	13:56:54	976.63	32.712	20.4
2/11/2020	13:56:56	976.63	32.712	20.4

Date	Time	EL_TOC	LEVEL	TEMPERATURE
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2/11/2020	13:57:04	976.63	32.716	20.5
2/11/2020	13:57:06	976.63	32.712	20.5
2/11/2020	13:57:08	976.63	32.712	20.5
2/11/2020	13:57:10	976.63	32.712	20.5
2/11/2020	13:57:12	976.63	32.712	20.5
2/11/2020	13:57:14	976.63	32.712	20.6
2/11/2020	13:57:16	976.63	32.712	20.6
2/11/2020	13:57:18	976.63	32.712	20.6
2/11/2020	13:57:20	976.63	32.712	20.6
2/11/2020	13:57:22	976.63	32.712	20.6
2/11/2020	13:57:24	976.63	32.716	20.7
2/11/2020	13:57:26	976.63	32.716	20.7
2/11/2020	13:57:28	976.63	32.712	20.7
2/11/2020	13:57:30	976.63	32.716	20.8
2/11/2020	13:57:32	976.63	32.716	20.9
2/11/2020	13:57:34	976.63	32.716	21
2/11/2020	13:57:36	976.63	32.716	21
2/11/2020	13:57:38	976.63	32.716	21.1
2/11/2020	13:57:40	976.64	32.722	21.2
2/11/2020	13:57:42	976.63	32.716	21.3
2/11/2020	13:57:44	976.63	32.716	21.4
2/11/2020	13:57:46	976.63	32.712	21.5
2/11/2020	13:57:48	976.63	32.716	21.6
2/11/2020	13:57:50	976.63	32.716	21.7
2/11/2020	13:57:52	976.63	32.716	21.8
2/11/2020	13:57:54	976.63	32.712	21.9
2/11/2020	13:57:56	976.63	32.716	21.9
2/11/2020	13:57:58	976.63	32.716	22
2/11/2020	13:58:00	976.63	32.716	22.1
2/11/2020	13:58:02	976.63	32.716	22.2
2/11/2020	13:58:04	976.64	32.722	22.3
2/11/2020	13:58:06	976.63	32.712	22.3
2/11/2020	13:58:08	976.63	32.716	22.4
2/11/2020	13:58:10	976.63	32.716	22.5
2/11/2020	13:58:12	976.63	32.716	22.6
2/11/2020	13:58:14	976.63	32.716	22.6
2/11/2020	13:58:16	976.63	32.716	22.7
2/11/2020	13:58:18	976.63	32.716	22.7
2/11/2020	13:58:20	976.63	32.716	22.8
2/11/2020	13:58:22	976.63	32.716	22.8